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Abstract: The impactful environmental changes that are being observed today are not a new phenomenon, but something that has been increasing significantly since the industrial revolution. These issues began to gain significant international attention in the mid-to-late twentieth century, which prompted the introduction of the United Nations Environment Programme. Since then, there have been many attempts to create international treaties in order to promote fossil fuel emission reduction and reduce the level of greenhouse gases in the atmosphere, in an attempt to ensure that the planet remains a safe and habitable place to live. Despite initial hope, the Kyoto Protocol was unsuccessful in achieving these goals. The following will examine why the Paris Agreement was established and how it differs from its predecessor, the Kyoto Protocol. Canada will be used as a case study, examining its participation in the Kyoto Protocol, its role in the Paris Agreement, and how it can improve.

The concerns and challenges that are being faced today due to climate change have been augmented in recent decades due to the increased burning of fossil fuels, which has led to a higher rate of carbon dioxide being expelled into the atmosphere. There has also been an economic dependency that has been created when it comes to the use of fossil fuels. The impacts of global warming are experienced all over the world in a multitude of ways, whether it be from the effects of rising sea levels due to melting polar ice caps or increasingly changing weather patterns. While these are continuing to impact lives daily, many countries are being pushed to make major changes when it comes to fighting the changes to the climate, such as through the implementation of environmental legislation and finding alternative fuel sources. The following will discuss the legislation that has been implemented by international bodies, from the Kyoto Protocol to the Paris Agreement, and how these agreements have shaped discussions relating to climate change mitigation and adaptations. These international treaties will be analyzed, focusing on their original purpose, where countries could be going wrong, and how they can be improved to meet emission reduction targets.

The terms “climate change” and “global warming” began to be widely used in the mid-to-late twentieth century. In the last few decades specifically, the use of the term “climate change” has rapidly increased. The planet’s climate has always fluctuated throughout history; however, an overwhelming number of scientists agree that the abnormal changes experienced today are a direct result of human activity, particularly the use of and burning of fossil fuels. Due to this human influence, scholars have coined this period of increasing temperatures in the earth’s atmosphere as “the Anthropocene.” The Anthropocene is said to have begun around the beginning of the industrial revolution, as anthropogenic

human-induced global warming began to take place.[1] With the creation of the United Nations Environment Programme (UNEP) in 1972, issues surrounding the environment and climate change began to take centre stage in government and public discussions.

The United Nations' Impact in the Climate Fight

The UNEP[2] began to raise the concerns of international governments over the need for increased protection of the natural environment. The UNEP functions within the United Nations framework and "serves as an authoritative advocate for the global environment." The UNEP is a driver in the environmental protection field and focuses on a wide range of related issues, including climate change, ecosystem management and environmental governance.[3]

Apart from the UNEP, other funds and groups have been created with similar goals to address the effects of climate change. A major body established to specifically address climate change within the United Nations is the Intergovernmental Panel on Climate Change (IPCC). The IPCC, established in 1988, works with governments and internationally recognized scientists to generate evidence and highlight the issues surrounding climate change. The primary function of the IPCC is to "synthesize the most recent developments in climate science, adaptation, vulnerability, and mitigation every five to seven years."[4] The panel's first supplement was a collection of scientific data about atmospheric changes. It concluded that concentrated greenhouse gas emissions are increasing in the atmosphere and

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[1] Will Steffen et. al., "The Trajectory of the Anthropocene: The Great Acceleration." *The Anthropocene Review* 2, no. 1 (2015): 82. https://doi.org/10.1177/2053019614564785.

[2] United Nations Environment Programme, "UNEP: The First 40 Years - A Narrative by Stanley Johnson," UN Environment Document Repository Home, January 1, 1970, http://wedocs.unep.org/handle/20.500.11822/8751.

[3] "Why does the UN Environment Programme matter?" UNEP - United Nations Environment Programme, accessed July 2, 2020, https://www.unenvironment.org/about-un-environment/why-does-un-environment-matter.

[4] "The IPCC: Who Are They and Why Do Their Climate Reports Matter?," Union of Concerned Scientists, October 11, 2018, https://www.ucsusa.org/resources/ipcc-who-are-they.

are increasing due to human activity.[5] These assessments provided by the IPCC have been influential in providing summaries of the scientific data to allow for a better understanding of where the world is heading in regard to the environment. The IPCC reports being produced, most recently in 2018, outline the path the planet is on to reach 1.5°C global warming above pre-industrial levels. In this more recent report, pathways are presented that countries will need to follow in order to mitigate greenhouse gas levels in the atmosphere.[6] These reports and research provide summaries for policymakers drafting legislation centred around environmental protection.

Along with the IPCC, the United Nations has also established the United Nations Framework Convention on Climate Change (UNFCCC). The UNFCCC was established in 1992, in order to create a space in which to acknowledge "that the global nature of climate change calls for the widest possible cooperation by all countries and their participation in an effective and appropriate international response" from each party involved.[7] The Convention, known as the Convention of the Parties (COP), is held annually over a few weeks and is a place where countries, scientists and negotiators can address the changes occurring to the climate. The UNFCCC focuses on the parties (countries and governments signed onto the convention) committing and agreeing to principles of the goals of the UNFCCC. The goal of the UNFCCC is that "climate change should be arrested in a time frame that allows ecosystems to 'adapt naturally' to climate change, does not impede sustainable development,

[5] Intergovernmental Panel on Climate Change. "Climate Change 1992: the Supplementary Report to the IPCC Scientific Assessment" *Cambridge University Press*, 1992 ISBN 0 521 43829 2. Retrieved on July 30, 2020. https://www.ipcc.ch/site/assets/uploads/2018/05/ipcc_wg_I_1992_suppl_report_full_report.pdf.

[6] Valérie Masson-Delmotte et al., *Summary for Policymakers. In: Global Warming of 1.5°C. An IPCC Special Report on the Impacts of Global Warming of 1.5°C above Pre-Industrial Levels and Related Global Greenhouse Gas Emission Pathways, in the Context of Strengthening the Global Response To*, *Ipcc - Sr15*, (2018): 16, https://report.ipcc.ch/sr15/pdf/sr15_spm_final.pdf%0Ahttp://www.ipcc.ch/report/sr15/.

[7] United Nations Framework Convention on Climate Change, United Nations, 1992. Retrieved on July 31, 2020. FCCC/INFORMAL/84 GE.05-62220 (E) 200705. https://unfccc.int/resource/docs/convkp/conveng.pdf

and maintains agricultural productivity."[8] Since the introduction of the UNFCCC, several key treaties have been established, including the Kyoto Protocol in 1997 (which entered into force in 2005) and the Paris Agreement in 2015.[9] Both of these global arrangements have been drivers of the UNFCCC, making global change and attempting to reach the objectives first developed by the UNFCCC when it comes to stabilizing greenhouse gases.

The IPCC reports help to provide guidance for what should be adopted by countries who are part of the UNFCCC. Since 1992, the UNFCCC has met annually at COP to discuss the current state of the climate and how best to inform and help governments to reach and set climate targets**.** The global agendas produced for governments by the IPCC are guidelines that allow international governments to create their own targets to meet when it comes to protecting the climate.

The Kyoto Protocol

The Kyoto Protocol was introduced in 1997, but did not come into effect until 2005, after the Russian and Canadian ratifications.[10] It was first discussed at the 1992 Rio Earth Summit, the same summit that adopted the UNFCCC.[11] This was a monumental occasion because a Protocol with such an intense level of commitment to the environment had never before been presented.

The framework was discussed for five years, and in 1997, the Kyoto Protocol was introduced. During that time, the international community started to discuss the pressing problem of 'global warming.' Over these five years of discussions and reports, the countries in the UNFCCC understood that a possible way to stop 'global warming' was connected with

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[8] Hannah Lee, "Chapter 16 - Mitigation: Reducing Greenhouse Gas Emissions, Sinks & Solutions," in *Climate Change Biology* (Amsterdam: Elsevier Ltd., 2010)**:** 339.

[9] Lee, 340.

[10] Jane A. Leggett, "United Nations Framework Convention on Climate Change, the Kyoto Protocol and the Paris Agreement: A Summary," *Congressional Research Services* (January 29, 2020): 2.

[11] David G. Victor, *The Collapse of the Kyoto Protocol and the Struggle to Slow Global Warming* (Princeton: Princeton University Press, 2001): viii.

the reduction of greenhouse gas emissions. That is why the Kyoto Protocol set targets for the 38 nations that signed onto it to curb emission output of greenhouse gases and to address concerns presented by the IPCC.[12] The Protocol involved nations using "emission reduction credits" to lower Greenhouse Gas Emissions (GHGs) by at least 5% below 1990s levels, by 2009-2012. This "market for emissions" provided a way for nations to incentivize their reduction of emissions by allowing them to sell off any unused credits.[13]

Where the Kyoto Protocol "Went Wrong"

The Kyoto Protocol changed how many governments were formally looking at greenhouse gas emissions, and what should be done to lower them. However, from the Kyoto Protocol's inception, it failed to recognize the commitment and get some of the largest economies on board, including China.[14] The Protocol focused solely on major first world countries who (at the time) were making significant impacts when it came to environmental degradation. Scholars have argued that due to China's rapidly growing economy and its large environmental footprint, it should have been included within the Protocol. It has also been speculated that had China been party to the Kyoto Protocol, it might have been able to persuade some of its allies to also join. As a developing country, China did not participate in the Kyoto Protocol, causing dismay from other large polluting countries who thought that China, a large polluter itself, should be party to the Protocol.[15] Many were concerned that without the same environmental constraints, China would be able to monopolize markets and

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[12] Victor, viii.; Christopher Napoli. "Understanding Kyoto's Failure" *SAIS Review of International Affairs*. 32, no. 2 (2012): 183, https://muse.jhu.edu/article/493430.

[13] Leggett, "United Nations Framework Convention," 4.

[14] Colin Hunt, "Kyoto Protocol Fails: get ready for a hotter world," *The Conversation*, November 15, 2012, https://theconversation.com/kyoto-protocol-fails-get-ready-for-a-hotter-world-10742#:~:text=The%20Protocol%20was%20in%20fact,USA%20failed%20to%20sign%20up.

[15] Jon Feldon, "The Big Black Hole in the Kyoto Protocol: Was the Exclusion of Black Carbon Regulation "Fatal Law"?," *Sustainable Development Law & Policy 7*, no. 24 (Winter 2007): 60, https://digitalcommons.wcl.american.edu/cgi/viewcontent.cgi?referer=https://www.google.com/&httpsredir=1&article=1242&context=sdlp.

produce products more cheaply. China is now one of the world's largest polluting countries, with temperatures in the country rising by 0.5-0.8°C in the last 100 years.[16]

Kyoto and Canada's Failure

As time progressed, many countries began to withdraw from the Protocol as they did not believe that they would be able to successfully meet the targets that were set out, nor did they want to spend the money that would be required to meet these targets. Canada opted not to reduce emissions as it would be too costly to do so, and the economic benefits of their fossil fuel industries were too great. The Canadian government pulled away from the Kyoto Protocol and has since experienced a significant growth in emissions. The federal government stated that the "Alberta oil sands [were] politically and economically important," and this was the main contributor to its emissions that spiked by 17% during the time that the country should have been lowering emissions.[17] After the ratification of Canada's Kyoto Protocol targets in 2002, former Canadian Prime Minister Stephen Harper, elected into office in 2006, claimed that Canada would not meet their targets and stated that his government would not attempt to meet such goals. The Conservative Party of Canada was well known for being anti-Kyoto, and redirected attention away from the Protocol and focused on how the Liberals failed to follow through with Kyoto prior to the Conservatives 2006 win. Prime Minister Harper's policies were a direct repudiation of the country's effort to deal with climate class.[18]

According to a letter written by Harper when he was the leader of the Canadian Alliance party, the later Prime Minister called the Kyoto Protocol a "'socialist scheme'

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[16] Haidong Kan, Renjie Chen, and Shilu Tong. "Ambient Air Pollution, Climate Change, and Population Health in China." *Environment International* 42 (2012): 10–19. https://doi.org/10.1016/j.envint.2011.03.003.

[17] Napoli, "Understanding Kyoto's Failure," 190-191.

[18] Heather A. Smith, "Political Parties and Canadian Climate Change Policy," *International Journal* 64, no. 1 (March 2009): 65. doi:10.1177/002070200906400104.

designed to suck money out of rich countries."[19] The Canadian Alliance Party was well known for being strong supporters of the oil and gas industry, so their claims against the Kyoto Protocol and claims that it would cost Canadians more money were unsurprising. With Harper's backing, the oil and gas sector increased emissions and ended up producing 25% of Canada's carbon pollutants.[20] The Canadian government formally backed away from the Kyoto Protocol in December of 2011. Environment Minister Peter Kent withdrew Canada from Kyoto and stated that the Protocol would have forced the Canadian government to buy about 14-billion dollars' worth of carbon credits to meet its targets, so it was more cost-efficient to back out from the agreement.[21] This was the reality for Canada, along with many other nations within the Kyoto Protocol, who found their way out of investing in clean energy in order to continue 'business as usual.'

The 2015 Paris Agreement: Impacts and Goals of Governments

The lack of commitments to the Kyoto Protocol, with only 38 nations signed on, is, in large part, what prompted the foundation of the Paris Agreement. Many have argued that the incentives that were made by Kyoto were too far reaching and that it did more for show than actually resulting in making serious change.[22] The over ambition pushed forward by this Protocol resulted in the opposite of its intended effect. Rather than getting countries to make manageable changes, governments around the world gave up because they did not think that they could reach their targets. The parties learned from their mistakes and "legally-binding

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[19] "Harper's Letter Dismisses Kyoto as 'Socialist Scheme' | CBC News," CBCnews (CBC/Radio Canada, January 31, 2007), https://www.cbc.ca/news/canada/harper-s-letter-dismisses-kyoto-as-socialist-scheme-1.693166.

[20] Margo McDiarmid, "Oil and Gas Regulations Now Would Be 'Crazy Economic Policy,' PM Says | CBC News," CBCnews (CBC/Radio Canada, December 10, 2014), https://www.cbc.ca/news/politics/stephen-harper-says-oil-and-gas-regulations-now-would-be-crazy-1.2866306.

[21] Bill Curry and Shawn McCarthy, "Canada Formally Abandons Kyoto Protocol on Climate Change," The Globe and Mail, December 12, 2011, https://www.theglobeandmail.com/news/politics/canada-formally-abandons-kyoto-protocol-on-climate-change/article4180809/

[22] See note 15.

emission reduction targets" that did not succeed with the Kyoto Protocol.[23] This recognition is what helped in developing a new treaty, the Paris Agreement.

The historic 2015 Paris Agreement is an agreement between the 195 parties and state members of the United Nations and UNFCCC and was officially signed on December 12, 2015. The Agreement was formed in order to replace the failed Kyoto Protocol and establish a stronger treaty. Achieving an international agreement like the Paris Agreement was extraordinarily difficult since many high-emission countries (many of whom failed when it came to the Kyoto Protocol) had to be persuaded to get on board. There needed to be a global agreement that all fossil fuel use was negatively impacting the environment and harming the future of the planet and all humanity. After Kyoto expired, the international community agreed that there was a need to keep the rising global temperatures under 2°C before 2030. At COP-15, the Copenhagen Conference, parties began to lay the foundation for what a new treaty would look like and helped to start the discussions that eventually became the Paris Agreement. Major emitters like China and the United States signing agreements to support efforts to reduce the effects of climate change motivated the broader international community to back a new agreement in order to protect the environment.[24]

The Paris Agreement goes beyond the targets set by its predecessor, as it was formed in order to begin where the Kyoto Protocol had ended. The new Agreement would be one that would learn from the mistakes of the past and make changes accordingly. Major countries like the United States did not favour Kyoto, largely due to the fact that it set binding emission

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[23] Melissa Denchak, "Paris Climate Agreement: Everything You Need to Know," *Natural Resource Defense Council*, December 12, 2018, https://www.nrdc.org/stories/paris-climate-agreement-everything-you-need-know.

[24] Robert Falkner "The Paris Agreement and the New Logic of International Climate Politics." *International Affairs* 92 (5) (2016): 1113-1114 https://doi.org/10.1111/1468-2346.12708.

targets.[25] The idea with the Paris Agreement was to make it less binding and more favourable to the larger countries to meet their targets. It makes room for countries to develop and change their own climate policies and goals. With this new accord, there was more international backing, and more countries were willing to participate in a new agreement to fight climate change.[26]

The Paris Agreement replaced the Kyoto Protocol as the "primary subsidiary vehicle for process and actions under the UNFCCC."[27] The Agreement aimed to "strengthen the global response to the threat of climate change by keeping a global temperature rise this century well below 2℃ above pre-industrial levels and to pursue efforts to limit the temperature increase even further to 1.5℃."[28] The agreement contained a great deal of information covering "mitigation policy, climate finance, transparency, reporting and review, and international cooperative mechanisms… as well as weaker sections on adaptation, capacity building, technology transfer, and forest policy."[29]

According to the Canadian Environmental Agreements Compendium, the legislative goals that countries are to create are "Nationally Determined Contributions (NDCs): All Parties are to put forward national greenhouse gas targets."[30] NDCs serve as the basic goals

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[25] Brad Plumer, "Stay In or Leave the Paris Climate Deal? Lessons From Kyoto," The New York Times (The New York Times, May 9, 2017), https://www.nytimes.com/2017/05/09/climate/paris-climate-agreement-kyoto-protocol.html.

[26] Andrew Wong, "Even without the US, the Paris Climate Agreement Can Succeed Where Its Predecessor Failed," CNBC (CNBC, February 12, 2018), https://www.cnbc.com/2018/02/11/unlike-the-kyoto-protocol-the-paris-agreement-can-still-succeed.html.

[27] Leggett, "United Nations Framework Convention," 5.

[28] "What is the Paris Agreement?" The United Nations Framework Convention on Climate Change, accessed July 3, 2020, https://unfccc.int/process-and-meetings/the-paris-agreement/what-is-the-paris-agreement.

[29] Radoslav S. Dimitrov, "The Paris Agreement on Climate Change: Behind Closed Doors," *The MIT Press Journals* 16, no. 3 (2016): 7, https://doi.org/10.1162/GLEP_a_00361.

[30] Environment and Climate Change Canada, "United Nation Framework Convention on Climate Change and its Paris Agreement," *Compendium of Canada's Engagement in International Environmental Agreements and Instruments*, October 2018: 2, https://epe.lac-bac.gc.ca/100/201/301/weekly_acquisitions_list-ef/2019/19-42/publications.gc.ca/collections/collection_2019/eccc/en4-381/En4-381-1-43-2018-eng.pdf

that countries are putting forward towards reducing emissions. Another legislative goal includes "Transparency framework: The Paris Agreement relies on a robust transparency and accounting system to provide clarity on action and support by Parties … The framework will include reporting standards for GHG (greenhouse gas) emissions, mitigation and adaptation actions and support."[31] These are frameworks for how parties of the Agreement are to put forth their goals and attain them.

The agreement entered into force less than a year after it was introduced and continues to be looked at and ratified by countries to meet their thresholds.[32] Countries who have yet to ratify the Agreement are Iran, Iraq, Angola, Libya, Yemen and South Sudan. For some of these countries it is due to being part of the Organization of Petroleum Exporting Countries (OPEC) and for the others it is due to state conflicts.[33] The Paris discussions also took on issues that were not presented or included in Kyoto, such as including all countries in a shared initiative to reduce greenhouse gas emissions globally, not just major industrialized countries. The need to drive down emissions and sharing that responsibility is an important step taken in the Paris Agreement.[34]

Paris - Governance and Technologies

Global governance under the Paris Agreement is critical because countries must work together to solve this global environmental issue that cannot be solved by one country alone. When the Kyoto Protocol came into effect, there was little global cooperation among any countries, let alone dignitaries, when it came to monitoring global climate change, and major polluting countries quickly pulled out early from it as they did not think that they could meet

[31] See note 30.

[32] See note 28.

[33] Soila Apparicio and Natalie Sauer, "Which Countries Have Not Ratified the Paris Climate Agreement?," Climate Home News (Climate Home, August 13, 2020), https://www.climatechangenews.com/2020/08/13/countries-yet-ratify-paris-agreement/.

[34] Dimitrov, "The Paris Agreement on Climate Change: Behind Closed Doors," 8.

their targets. New technologies have thus been developed and introduced around the world to help all countries meet their goals. These advancements have also aided in economic and social changes that have also contributed to helping countries meet their targets. One prime example of this is the increased use of renewable energy sources (solar panels, wind turbines and hydroelectric) as an alternative. By 2015, Uruguay was producing 90% of its electricity from these sources. Larger nations are having more difficulty establishing country-wide legislation that promotes the use of renewables, as evident in countries like Canada and the United States. Both countries are large producers of fossil fuels, which makes the switch to renewable energies a slow and difficult change. That is why developed nations are expanding their production to the private sector in developing technologies to help meet their NDCs.[35] Within the UNFCCC, the Climate Technology Centre and Network helps to provide technology and increase climate assistance for countries, such as preparing research to present as well as help with the production of reports at COP.[36] Other considerations to reduce countries' greenhouse gas emissions include Carbon Dioxide Removal (CDR) technologies[37] and fuel-efficient or fully electric cars, as well as changing homes and buildings to become more energy-efficient[38], however, these will need to be used extensively in order to meet Paris targets.

Countries who are committed to reducing emissions and staying below the 1.5℃ global temperature target must act in order to change their fuel uses. Factories and shipping

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[35] Technology Executive Committee "Technological Innovation for the Paris Agreement" The United Nations Framework Convention on Climate Change. TEC Brief #10, 17. Accessed August 12, 2020. https://unfccc.int/ttclear/misc_/StaticFiles/gnwoerk_static/brief10/8c3ce94c20144fd5a8b0c06fefff6633/57440a5fa1244fd8b8cd13eb4413b4f6.pdf.

[36] "Technological Innovation for the Paris Agreement," 25.

[37] Heleen Van Soest, David McCollum, Christoph Bertram, Mathijs Harmsen, et. al. "Opportunities For Enhanced Action to keep Paris Goals in Reach" COMMIT & CD-LINKS (October 2018): 19, https://unfccc.int/sites/default/files/resource/437_Enhanced%20Action%20to%20Keep%20Paris%20Goals%20in%20Reach.pdf

[38] Van Soest, 26.

are both large emitters of greenhouse gas emissions, and both account for a significant amount of the greenhouse gas emissions currently affecting our ecosystem today. However, there are new technologies that have been implemented by the shipping industry in order to help reduce pollution and upgrade the quality of fuel.[39] Air pollution due to shipping occurs most frequently when ships are stationary, which is why it is important to control the air quality around areas such as docks, not to mention the negative impacts on the health of nearby residents. Some technological changes that are being made currently include "lower sulfur alternative fuels in auxiliary engines, electrification with use of a shore-based power supply, and shore-based emission treatment."[40] These smaller changes are important in making significant changes to the current environmental situation, and can go a long way in meeting NDCs and Paris Agreement targets in the near future.

The United States' Backtrack on the Paris Agreement

Since the Paris Agreement came into effect, 197 nations have ratified the agreement.[41] President Donald Trump's historic withdrawal from the Paris Agreement in 2017 caused shockwaves around the world. The President's decision to withdraw from the Agreement in part came from Trump's belief that "the Paris Agreement undermines the U.S. competitive edge and impairs both employment and traditional energy industries."[42] As one of the leading world powers, and one of the largest emitters of greenhouse gases, this was an upsetting setback for globally achieving the targets set out by the Paris Agreement.[43] There are concerns that this lack of leadership by the United States will have consequences on other

[39] Chul-Hwan Han. "Strategies to Reduce Air Pollution in Shipping Industry." *The Asian Journal of Shipping and Logistics* 26 (1) (2010): 8. https://doi.org/10.1016/s2092-5212(10)80009-4.

[40] Han, 16.

[41] See note 23.

[42] Hai-Bin Zhang et al. "U.S. Withdrawal from the Paris Agreement: Reasons, Impacts, and Chinas Response." *Advances in Climate Change Research* 8 (4) (2017): 221, https://doi.org/10.1016/j.accre.2017.09.002.

[43] Leggett, "United Nations Framework Convention," 2.

countries choosing to maintain their commitment to the Agreement. Their withdrawal has not stopped the United Nations and other nation states from continuing on with their commitments to reduce greenhouse gas emissions and reach the 1.5℃ global temperature target.

Canada's Commitment to and Adoption of the Paris Agreement

Canada adopted the Paris Agreement in 2016 and has been public about its commitment to meet the ambitious goals. Canada's adoption came as an important step for the country, as it is the fourth largest oil producer in the world, producing 4.59 million barrels of oil per day in 2018. When the Canadian government withdrew from the Kyoto Protocol ahead of the initial commitment period (2009-2012), signing onto the Paris Agreement was a significant commitment for the country to ensure more is done to protect the climate.[44] Canada's Nationally Determined Contribution (NDC) of their target goal is "to reduce its economy-wide greenhouse gas emissions to 30% below 2005 levels by 2030."[45] In December of 2016, the Pan-Canadian Framework on Clean Growth and Climate Change was adopted as the first climate-oriented plan implemented by Canada as a joint effort between the provinces, territories and the Federal Government. Most recently, in 2019, the Canadian government introduced a Federal Carbon Tax (also known as a Pollution Pricing Act) to help ensure a drive-down in emissions across the country.[46] The Tax was introduced as a way to help lower fossil fuel emissions and charge high polluters. According to Climate Action Tracker, which assesses countries to see if they are on track to meeting goals, Canada needs to take significantly greater steps to be able to meet the targets laid out by the Paris Agreement.

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[44] "Types of Energy in Canada: Canada's Energy Resources," CAPP, July 18, 2020, https://www.capp.ca/energy/canadas-energy-mix/.

[45] See note 30.

[46] Environment and Climate Change Canada, "National Inventory Report 1990 –2018: Greenhouse Gas Resources and Sinks in Canada," (Ottawa: Library and Archives Canada Cataloguing in Publication, 2020), Accessed July 3, 2020, http://publications.gc.ca/collections/collection_2020/eccc/En81-4-1-2018-eng.pdf.

Canada is currently lagging behind on its commitments to the Paris targets, with projections showing that Canada is on track to be above 3°C, which is far off the goal of keeping warming below the 1.5°C that Paris calls for.[47] The Canadian government has had setbacks establishing more action when it comes to reducing its emissions, due to push back from large Canadian Provinces that have been against the carbon pricing systems. Although steps are being taken, there must be serious changes to legislation in order to meet Paris targets and Canada's own goals.

The Future of the Paris Agreement

Since 2015, there has been a significant amount of change when it comes to climate governance and countries trying to attain their goals. Each nation state that has adopted the agreement submits their own target goals to contribute to reaching the 1.5℃ target and must be approved by the United Nations. As discussed, multiple new forms of technologies are being developed as a result of countries trying to reach their NDCs, and ways in which they can be implemented to meet the 1.5℃ target.

Although efforts are being made to meet targets, most countries are not on the correct path to hit their mark. A 2018 article by Amanda Erickson in the Washington Post titled "Few countries are meeting their Paris climate goals. Here are the ones that are," outlined the few countries that are on their way to reaching their Paris targets, as well as the majority of countries who are not.[48] One country that has been on track to meet its Paris targets is Morocco. According to the Climate Action Tracker, Morocco is one of the only countries that will meet its 2030 target and successfully lower emissions. The country is on track to have

[47] Canada," Canada | Climate Action Tracker, accessed August 11, 2020, https://climateactiontracker.org/countries/canada/.

[48] Amanda Erickson, "Analysis | Few Countries Are Meeting the Paris Climate Goals. Here Are the Ones That Are.," The Washington Post (WP Company, October 11, 2018), https://www.washingtonpost.com/world/2018/10/11/few-countries-are-meeting-paris-climate-goals-here-are-ones-that-are/.

52% of its energy being produced by renewable sources by 2030.[49] The Moroccan government has established projects with the help of the German government in order to promote research and development of green hydrogen production. This project comes with the plan to build "Africa's first plant for the production of 'green gas,' with the objective of mitigating the emission of 100,000 tons of carbon dioxide."[50] Many other countries, however, are not as close to meeting their targets as Morocco or setting up projects to get close to their targets, especially industrialized countries. If countries are to meet their targets, change needs to be made now because, as of yet, all industrialized countries are failing.

Conclusion

The UNFCCC has come a long way since its formation in 1992. Along with the IPCC and COP, the UNFCCC forms an important branch of UNEP and the United Nations, that all work towards supporting and helping to impose the climate. With the rapid and increasing impacts of climate change being felt around the world, these branches help to influence change and make a difference to the issues facing the environment today. The Kyoto Protocol had good intentions behind its implementation, although its binding targets made the international community feel pressured, especially since it was at a time of great economic challenge. Many countries pulled out, and emissions continued to rise. The Paris Agreement was a historic achievement, with almost all of the international community stressing the need for a new agreement after Kyoto. The Paris Agreement is a monumental step in the right direction, but at the same time, it will not achieve all of its goals in the near future. From the Kyoto Protocol to the newest Paris Agreement, changes are being made around the world

[49] "Morocco," Canada | Climate Action Tracker, accessed July 31, 2020, https://climateactiontracker.org/countries/morocco/.

[50] Guessous, Hamza. "Morocco First to Partner with Germany to Develop Green Hydrogen Sector." Morocco World News, July 7, 2020. https://www.moroccoworldnews.com/2020/06/305441/morocco-first-to-partner-with-germany-to-develop-green-hydrogen-sector/.

when it comes to how climate policy is approached and what is being done by countries and the UN to address these concerns. With rising global temperatures, the targets set by the Paris Agreement to keep global temperatures below a 1.5℃ of warming is an important objective to reach in order to keep balance in the ecosystem. So far, since most countries are not on track to reach their targets, pressure must be put on them to act now in order to drive down emissions and ensure that the Paris Agreement does not suffer the same fate as the Kyoto Protocol. The world has already reached 1℃ of warming, with certain regions experiencing even higher levels of warming. Temperatures will only continue to rise dramatically if changes are not made immediately to lower emissions.

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