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Canada's Customary Obligation to Prevent Transboundary Harm and the Reduction of Emissions

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1. Introduction

The *Paris Agreement* is the leading international treaty on the global commitment to combat climate change. Canada ratified the treaty in 2016 and voiced its commitment to implementing climate change policies at all levels of government.[1] The *Paris Agreement* seeks to hold global temperature rise to 2°C while pursuing efforts to limit this increase to 1.5°C.[2] Article 4 of the *Paris Agreement* establishes a binding commitment on all Parties to maintain a nationally determined contribution (NDC) and to pursue domestic measures to achieve these goals through reducing greenhouse gas (GHG) emissions.[3] How these measures are achieved is left to the individual country, as the *Paris Agreement* is silent on this aspect.

In the Canadian context, the question becomes what Canada is doing to achieve its emission reduction target. Canada has pledged to reduce GHG emissions by 30 percent below 2005 levels before 2030 as its NDC.[4] Ultimately, the goal is to reach net-zero emissions before 2050.[5] However, this is a non-binding commitment. This paper asks whether there is an additional obligation – beyond the *Paris Agreement* - under international law requiring Canada to reduce its emissions. It argues that the answer is yes: there is customary international law (CIL) requiring states to prevent transboundary

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[1] Sean Grassie, "Canada and the Global Pact for the environment: A Strategic Analysis" (2019) 32:2 J Enviro L & Prac 207 at 237.
[2] *Paris Agreement*, 12 December 2015, No. 54113 (entered into force 4 November 2016) at Art 2(a) [hereinafter *Paris Agreement*].
[3] *Ibid*, at Art 4.
[4] "Progress towards Canada's greenhouse gas emissions reduction target," *Government of Canada*, online: < https://www.canada.ca/en/environment-climate-change/services/environmental-indicators/progress-towards-canada-greenhouse-gas-emissions-reduction-target.html>.
[5] "Net Zero Emissions by 2050," *Government of Canada*, online: < https://www.canada.ca/en/services/environment/weather/climatechange/climate-plan/net-zero-emissions-2050.html>.

harm and therefore from engaging in activities which would cause significant cross-border damage. This CIL norm also compels Canada to prevent persons or entities within its jurisdiction from carrying out such activities.[6] While this CIL is referred to by a number of terms– such as the no-harm principle and the obligation to prevent transfrontier pollution – this paper refers to the norm as the duty to prevent transboundary harm or the duty of prevention. Under this CIL norm, Canada is obligated to prevent GHG emissions from flowing cross-boundary and causing harm in other countries.

This paper is organized into five parts. The first part of this paper defines the components of CIL: state practice and *opinio juris*. When these two thresholds are met, a customary duty becomes binding on all states. The second part of this paper identifies the duty to prevent transboundary harm as a CIL. The duty was first defined in the 1941 *Trail Smelter* case.[7] Since *Trail Smelter*, a number of cases brought before the International Court of Justice (ICJ) and treaties have dealt with the duty of prevention. The ICJ has even explicitly identified the duty as a CIL. The third section evaluates the contours of the duty, which must be understood by asking what the requirements are of a state to reduce its emissions. A state must make a due diligent effort to prevent the harm from occurring. Furthermore, this harm must also be a "significant risk." The fourth part argues that the duty of prevention applies in the context of climate change. Climate change clearly is a "significant risk" and states, while not required to cease an activity altogether, are required to take active steps to reduce their emissions. Finally, this paper

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[6] Florentina Simlinger & Benoit Mayer, "Legal Responses to Climate Change Induced Loss and Damage" in Reinhard Mehcler, Laurens M. Bouwer, Thomas Schinko, Swenja Surminski & JoAnne Linnerooth-Bayer, eds, *Loss and Damage from Climate Change: Concepts, Methods and Policy Options* (Cham: Springer Nature Switzerland AG 2019) at 187 [hereinafter Simlinger & Mayer].

[7] *Trail Smelter Case (United States, Canada)*, [11 March 1941] IJC (International Joint Commission) at 1910 and 1922.

seeks to identify whether Canada is obligated to reduce its GHG emission under CIL. Canada follows a modified monist approach to CIL, meaning that, unless domestic legislation displaces the CIL, it must be respected. This paper argues that Canada has a clear duty under international law to prevent transboundary harm by reducing its emissions, that this duty amounts to CIL, and therefore this duty flows directly into Canada's domestic law. It also argues that there is no domestic legislation that displaces this CIL; rather, the recently enacted *Greenhouse Gas Pollution Pricing Act*, which has been upheld as constitutional by the Supreme Court of Canada (SCC), reinforces that CIL. In other words, in addition to abiding by its obligation to reduce GHG emissions under the *Paris Agreement*, Canada is obligated to reduce its emissions based on this CIL.

2. Customary International Law

CIL is an unwritten law binding on all countries and which cannot be altered by any particular state.[8] To become custom, a particular international rule or principle must meet a two-part test. The first part of the test requires state practice, while the second part requires acceptance of this practice as law, or *opinio juris*.[9] This test has been widely accepted by states, judicial decisions, international institutions, and scholars.[10] CIL is reflected in Article 38(1) of the *Statute of the International Court of Justice*, which

[8] Ian Brownlie, *Principles of Public International Law*, 6 edition (Oxford: Oxford University Press, 2008) at 6 [hereinafter Brownlie].
[9] UN ILC, *Draft conclusion in identification of customary international law, with commentaries,* seventieth session, A/73/10 (2018) at 122-123 (hereinafter UN Draft CIL).
[10] Niels Peterson, "The International Court of Justice and the Judicial Poltiics of Identifying Customary International Law,"(2017) 28:2 EJIL 357; Michael Wood UN ILC, *Second report on identification of customary international law*, sixty-sixth session, A/CN.4/672 (2014) International Law Commission A/CN.4 [hereinafter Wood];

provides that "[t]he Court, whose function is to decide in accordance with international law such disputes as are submitted to it, shall apply … (b) international custom, as evidence of a general practice accepted by law."[11] However, difficulties arise when it comes to discerning both general practice and acceptance of law, since states often do not practice a particular usage because they feel legally compelled to do so.

a. State practice

State practice is the practice by states of a particular rule or principle.[12] It has three elements: duration, generality, and uniformity.[13] Duration is simple: while no particular duration is required, the continued practice of a usage over time will be a part of the evidence of generality.[14] Even so, in the *North Sea Continental Shelf Case*, the ICJ held that the passage of a considerable period of time was unnecessary to form customary law.[15] This implies that a court has discretion when determining whether a particular principle has become CIL.

Generality refers to the widespread nature of the practice: the principle must be recognized by most, but not all nations.[16] In order to determine generality, courts will

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[11] *Statute of The International Court of Justice*, 18 April 1946 at Art. 38; It should be noted that the terms 'custom' and 'usage' are often used interchangeably; however, these terms have different menaings. A usage is a general practice that does not reflect a legal obligation, while in contrast, a legal obligation is essential for a custom. Therefore, to become a custom, it must be shown that there is a belief that a particular practice is law: Brownlie, *supra* note 8 at 7.
[12] *Ibid.*
[13] *Ibid,* at 7.
[14] *Ibid,* at 7.
[15] *North Sea Continental Shelf (Federal Republic of Germany/Denmark; Federal Republic of Germany/Netherlands)* "Reports of Judgment, Advisory Opinions and Orders" (20 February 1969) ICJ Reports No 327 at 43 [hereinafter *North Sea Continental Shelf*]
[16] Justice Louis Lebel, "A Common Law of the World? The Reception of Customary International Law in The Canadian Common Law" (2014) 65:3 UNBLJ at 5 [hereinafter Lebel J.]; There is still little consensus over what "general" entails: Alexandre Kiss & Dinah Shelton, *Guide to International Law* in (Kininklijke Brill NV, Leiden, The Netherlands, 2007) at 282 [hereinafter Kiss & Shelton].

examine the number or distribution of states following the relevant practice.[17] The practice of states whose interests are specifically affected are given more weight.[18] The International Law Association (ILA) has indicated that, if "participation is sufficiently representative, it is not normally necessary for even a majority of States to have engaged in the practice, provided that there is no significant dissent."[19] The real problem in determining generality is to discern the value of abstention from protest by a substantial number of states concerning a practice that other states follow.[20] If a state is silent on the issue, it may denote a tacit agreement or a simple lack of interest on the issue.[21] It will be up to the tribunal to decide whether abstention from protest or silence is because states are practicing the particular custom.

The third requirement, of uniformity, means that the relevant practice must be consistent amongst states.[22] While complete uniformity is not required, substantial uniformity is required.[23] This is especially true when there are particularly affected states: the practice of the most affected states should be extensive.[24] However, some inconsistency is not fatal.[25] To illustrate how some inconsistent practice is not a detriment to a custom, the ICJ in the *Fisheries Jurisdiction* stressed that "too much importance need not be attached to the few uncertainties or contradictions" when considering uniformity in

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[17] Wood, *supra* note 10 at 37.
[18] *Ibid.*
[19] International Law Association, *Committee on Formation of Customary (General) International Law* (London Conference: 2000) at 25 I [hereinafter ILA Conference].
[20] Brownlie, *supra* note 8 at 7-8.
[21] *Ibid*, at 8.
[22] ILA Conference, *supra* note 19 at 42.
[23] Brownlie, *supra* note 8 at 7.
[24] *North Sea Continental Shelf*, *supra* note 15 at 43.
[25] ILA Conference, *supra*, note 19 at 42.

state practice.[26] Thus, one particular state failing to follow or acknowledge a particular usage is not detrimental to that usage reaching customary status.

In sum: 1) no particular duration is required, but the passage of time is evidence of generality; 2) the practice must be generally recognized by most, but not necessarily all, nations; and 3) state practice must be found consistently (particularly among the most affected states), but it need not be absolute. These three elements - duration, generality, and uniformity - are the essential ingredients of state practice.

To determine state practice, a tribunal can look to a wide variety of sources. Examples include physical and verbal acts by stated officials, state conduct in connection with treaties, resolutions adopted by international organizations, legislative and administrative acts, and decisions by national courts.[27] It is usually not practical for any court to determine the practice of almost 200 nations.[28] Discerning state practice from every state has been described as a "Herculean" task.[29] Therefore, courts will usually examine only a representative sample of states.[30] Once a court determines a particular usage among this sample, the court will balance inconsistent state practice with the observed patterns of other states.[31] This balancing exercise will depend on the duration, generality, and uniformity. Once weighed against each other, a court may then decide whether the usage is sufficient to reach the state practice threshold.

b. Opinio juris

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[26] *Fisheries Jurisdiction (United Kingdom vs Norway)*, "Judgment" (18 December 1951) ICJ Reports No 116 at 136.
[27] Note this list is non-exhaustive: Wood, *supra* note 10 at 37.
[28] Stefan A.G. Talmon, "Determining Customary International Law: The ICJ's Methodology between Induction, Deduction and Assertion" (2015) 26:2 EJIL 417 at 432 [hereinafter Talmon].
[29] Richard Dworkin, *Taking Rights Seriously* (Cambridge: Harvard University Press, 1977) at 105.
[30] Talmon, *supra* note 28 at 432.
[31] *Ibid*, at 433.

CIL depends not only on state practice (that is, on observable regularities of behaviour), but also on acceptance of these regularities as law by states.[32] This is called *opinio juris,* which is the psychological or subjective element of CIL. The ICJ defined *opinio juris* in the *North Sea Continental Shelf* case: "[n]ot only must the acts concerned amount to a settled practice, but they must also be such, or be carried out in such a way, as to constitute evidence of a belief by the state parties that a practice is rendered obligatory by the existence of a rule of law requiring it."[33] States must act from a sense of legal obligation, rather than being motivated by courtesy, fairness, or morality.[34] In other words, a state must feel compelled to follow the practice stemming from a legal obligation, and is not simply undertaking the practice out of habit.

According to the late Ian Brownlie, the ICJ has taken two different approaches in determining whether *opinio juris* exists. In the first approach, the ICJ is willing to assume the existence of *opinio juris* on the basis of evidence of general practice, a consensus in the literature, or in the previous determinations of the court or other international tribunals.[35] In the second approach, the court has adopted a more rigorous methodology calling for more positive evidence of the recognition of the validity of the rules in question in the practice of states.[36] Examples of such evidence of *opinio juris* can be found in: public statements made on behalf of states, official publications, government legal opinions, decisions by national courts, as well as conduct in connection with

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[32] Jo Lynn Slama, "Opinio Juris in Customary International Law" (1990) 15:2 Ola City U. L. Rev 603 at 606-607 [hereinafter Slama]; Daniel Bodansky, "Customary (And Not So Customary) International Environmental law" (1995) 3:1 Ind J Globla Leg Stud 105 at 109 [hereinafter Bodansky]; Anthony D'Amato, "The Theory of Customary International Law" (1988) 82 Am Society Intl' L 243.
[33] *North Sea Continental Shelf, supra* note 15 at 44.
[34] Brownlie, *supra* note 8 at 8.
[35] *Ibid,* at 8.
[36] *Ibid.*

resolutions or treaties.[37] The approach taken by the court seems to depend on the discretion of the court and the nature of the issue.[38] As will be shown later in this essay, the ICJ has primarily taken the first approach concerning the duty of prevention. Regardless, it is still important to demonstrate how a court takes the more rigorous approach, since the rigorous approach is used more often when it may be more difficult to show an *opinio juris*. The fact the ICJ is using the first, less rigorous, approach to determine the *opinio juris* of the duty of prevention implies that the psychological belief is more clearly established.

The *North Sea Continental Shelf Case* represents one example of the ICJ requiring strict proof of *opinio juris*. In the *North Sea Continental Shelf Case*, the ICJ was asked to determine the boundaries of the area located on the continental shelf between Germany, Denmark and the Netherlands.[39] The ICJ did not accept that equidistance, a legal concept that maritime boundaries should conform to a median line that is equidistant from the shores of neighbouring nations, had become CIL on the date of the Geneva Convention of 1958 or in relation to subsequent practice.[40] The Court determined that the equidistance principle established in Article 6 of the Geneva Convention of 1958 was not of a norm-creating character.[41] In addition, the Convention had only been in force for three years when the proceedings were brought and, consequently, the state practice was not "extensive and virtually uniform in the sense of the provisions invoked; and moreover have occurred in such a way as to show a general

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[37] Note this list is non-exhaustive: Wood, *supra* note 10 at 45-70.
[38] *Ibid.*
[39] *North Sea Continental Shelf*, *supra* note 15.
[40] *Ibid.*
[41] *Ibid*, at 43.

recognition that a rule of law or legal obligation is involved."[42] Therefore, the equidistance principle was found not to be part of CIL.

Similar to state practice, *opinio juris* does not need to be demonstrated in each individual state for a particular usage to form a legal obligation.[43] In the *Military and Paramilitary Activities Case,* the court indicated that *opinio juris* can be determined through general opinion or general recognition.[44] The word "general" here means "the aggregate of many individual opinions".[45] The court used the subjective element as a legal view of a specific group of states that were parties to an international convention.[46] This essentially means that *opinio juris* can be formed by the entire international community or by a region of states. What matters is that a state is following a usage out of a sense of legal obligation.

c. Can the ICJ and treaties determine CIL?

Can the ICJ use treaties to determine that certain usage amounts to CIL? As previously mentioned, discerning CIL purely from state practice and *opinio juris* can certainly be a "Herculean" task. According to Pierre-Marie Dupuy, when writing in international environmental law, scholars often cite the largest number of possible opinions, treaties, and recommendations in order to find a particular rule compulsory.[47] It is often problematic to demonstrate the compulsory character of a norm – in other words,

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[42] *Ibid,* at 108-9.
[43] Slama, *supra* note 32 at 654.
[44] *Military and Paramilitary Activities in and Against Nicaragua (Nicaragua v United States of America),* [1986] ICJ Rep 14 at 98 [hereinafter *Military and Paramilitary Activities* Case].
[45] *Ibid.*
[46] *Ibid,* at 117.
[47] Pierre-Marie Dupuy, "Formation of Customary International Law General Principles" in Daniel Bodansky, Jutta Brunée & Ellen Hey, eds, *The Oxford Handbook of International Environmental Law* (Oxford Handbooks in Aw, 2008) at 453.

to prove that the norm has been integrated into the '*corpus juris*' of general international law – by simply citing a large number of opinions, treaties, and recommendations.[48] The reason is that other conditions must be met; in particular, mere reiteration of different international documents does not actually consider what a particular state believes is binding.[49] According to Dupuy, the ICJ may satisfy the existence of *opinio juris* of states as long as this belief is confirmed in practice.[50] Moreover, the ICJ may rationalize this picture of state practice that it perceives in a given area and assert the existence of a customary norm in a case.[51] However, states rarely seek recourse at the ICJ for environmental disputes, and when there is a dispute, the court rarely decides to pronounce itself on the specific legal status of the norm in question.[52] Furthermore, courts are restricted to the specific facts of the case and the specific formulation of the legal question by parties to the dispute.[53] Therefore, a particular usage becoming a CIL is not dependant on the ICJ's declaration that it has entered the *corpus juris* of international law.

The question then becomes how much credibility do international courts have in stating a particular rule or principle is part of CIL? The Michael Wood report on the *ILC Draft Articles* stated: "While the decisions of international courts and tribunals as to the existence of rules of customary international law and their formulation are not 'practice', such decisions serve an important role as subsidiary means for determination of rules of law."[54] Furthermore, the Wood report asserted that the pronouncements of the ICJ may

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[48] *Ibid,* at 453.
[49] *Ibid,* at 458.
[50] *Ibid,* at 453.
[51] *Ibid,* at 460.
[52] *Ibid,* at 453.
[53] *Ibid.*
[54] Wood, *supra* note 10 at 34.

carry great weight.[55] Therefore, while decisions by the ICJ do not amount to state practice in and of themselves, these decisions can still be determinative as to whether something is a rule of CIL.

The proposition that treaties are representative of CIL has support from the ICJ. In the *Military and Paramilitary Activities* case, the ICJ considered the relationship between treaties and custom, finding that multilateral conventions "may have an important role to play in recording and defining rules deriving from custom, or indeed in developing them."[56] Furthermore, the ICJ recognized that customary rules may emerge which are identical to those of treaty law, and which exist simultaneously with treaty obligations.[57] In the *North Sea Continental Case,* the ICJ found that state practice since the conclusion of the 1958 *Geneva Convention on the Continental Shelf*, including signature and ratification of the convention, could create a CIL.[58] The ICJ identified the conditions to be fulfilled for a new rule to become a CIL that results from a treaty:

> It would in the first place be necessary that the provision concerned should, at all events, potentially, be of a fundamentally norm-creating character such as could be regarded as forming the basis of a general rule … with respect to the other elements usually regarded as necessary before a conventional rule can be considered to have become a general rule of international law, it might be that, even without the passage of any considerable period of time, a very widespread and representative participation in the convention might suffice of itself, provided it included that of states whose interests were specifically affected.[59]

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[55] *Ibid.*
[56] *Military and Paramilitary Activities* Case, *supra* 44 at 98.
[57] *Ibid,* at 14. This is the underlying argument of this paper: that Canada has two identical treaty obligations to reduce GHG emissions, both of which exist simultaneously: one under the *Paris Agreement* and one under the CIL duty of prevention. This argument is developed in more detail below.
[58] *North Sea Continental Shelf, supra* note 15 at 73.
[59] *Ibid,* at 41-2.

Furthermore, from the Advisory Opinion on the *Legality of the Threat or Use of Nuclear Weapons*, the court noted that some non-binding resolutions, "may sometimes have normative value", adding:

> …they can, in certain circumstances, provide evidence important for establishing the existence of a rule or the emergence of an *opinio juris*. To establish whether this is true of a given General Assembly resolution, it is necessary to look at its content and the conditions of its adoption; it is also necessary to see whether an *opinio juris* exists as to its normative character.[60] Thus, it should not be assumed that the mere fact a large number of states being a Party to a treaty establishes a customary norm for all.[61]

Therefore, essential to whether a treaty can be a CIL is whether there is a "normative character" or of a "fundamentally norm-creating character".

Establishing a CIL necessitates the finding of state practice and *opinio juris*. But the ICJ can determine both and declare a particular usage as a custom. The ICJ making this declaration carries great weight. If a treaty has a norm creating character, then this can further create a CIL. As this essay will demonstrate, the duty of prevention has consistently been brought to the ICJ and even declared as a custom. In addition, there are a number of international treaties that have explicitly mentioned that states have a duty to prevent a specific harm. This should be ample enough evidence to establish the duty of prevention as CIL.

3. The Duty to Prevent Transboundary Harm as CIL

This section examines whether the duty to prevent transboundary harm has reached the status of CIL. It argues that the answer is yes. This is especially true

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[60] *Legality of the Threat or Use of Nuclear Weapons, Advisory Opinion,* [1996] ICJ Rep at 226, 245-255 [hereinafter *Legality of the Threat or Use of Nuclear Weapons*].
[61] Philippe Sands, *Principles of International Environmental Law* (Cambridge: Cambridge University Press, 2003) at 147 [hereinafter Sands].

considering that the ICJ has formally stated that the duty is a CIL. Regarding state practice, the three necessary elements – duration, generality, uniformity – have all been met. Concerning Brownlie's two part *opinio juris* analysis, the ICJ has tended to take an approach that reflects the less rigid standard when concerning the duty of prevention. The ICJ has generally cited prior decision and treaties to determine that the duty of prevention has reached customary status.

a. Trail Smelter and Corfu Channel

Prior to the 1941 *Trail Smelter* case, there was very little evidence of environmental policies or cases dealing with pollutants flowing across boundaries. Since *Trail Smelter,* a number of treaties and cases have identified the duty to prevent transboundary harm as international law, some even as a norm of CIL. The question before the court in *Trail Smelter* was what level of continuing relief a source state of pollution owes to the affected state.[62] This was framed as a question of law to be ascertained by looking at the nature of the duty of relief.[63] To accomplish this task, the court looked for the content of the international law "rule", which was assumed to be a general principle applicable to all transboundary pollution at all times and places.[64] In *Trail Smelter,* Canada was judged liable for the damages caused by pollutants discharged into the atmosphere by a smelter in British Columbia and then carried by dominant winds towards the U.S. state of Washington.[65] In Washington, a group of rural farmers claimed damages from the waste emitted by the smelter, since this caused injury to plant life,

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[62] Thomas W. Merrill, "Golden Rules for Transboundary Pollution" (1997) 46 Duke L J 931 at 948 [hereinafter Merrill].
[63] *Ibid.*
[64] *Ibid.*
[65] *Trail Smelter, supra* note 7 at 1910, 1920.

forest trees, soil and crop yields.[66] Notably, this was not an ICJ decision. The case was brought forward by the United States and was referred to the International Joint Commission, a bilateral Canada-U.S. tribunal tasked with overseeing transborder issues such as this regarding the two countries.[67] In coming to its decision to hold Canada liable for $350,000 in damages to be paid to the farmers,[68] the International Joint Commission made an important assertion, one which forms the basis of the duty to prevent transboundary harm: "[u]nder the principles of international law, as well as the law of the United States, no State has the right to use or permit the use of its territory in such a manner as to cause injury to properties or persons therein, when the case is of serious consequences and the injury is established by clear and convincing evidence."[69] In other words, a country has a duty at all times to protect other states against injurious acts caused by individuals from within its jurisdiction. Since *Trail Smelter*, a number of international declarations and resolutions have supported this norm as an expression of universal *opinio juris.*

Following *Trail Smelter*, the 1949 ICJ's *Corfu Channel* case held Albania responsible for damaging British warships in the North Corfu Strait.[70] The warships had sailed through part of Albanian territorial waters, and two of the ships struck water mines, causing explosions that killed 44 people.[71] The dispute before the court was whether Albania was responsible for the explosions and resulting damage and loss of human

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[66] *Ibid,* at 1921-23.
[67] *Ibid,* at 1907.
[68] *Ibid,* at 1960.
[69] *Ibid,* at 1960.0
[70] *Corfu Channel (United Kingdom of Great Britain and Northern Ireland v Albania*) [1949] ICJ Rep 4 at 4.
[71] *Ibid,* at 22.

life.[72] In this regard, the court claimed that every state is "under an obligation not to allow knowingly its territory to be used for acts contrary to the rights of other States."[73] Much like *Trail Smelter*, the court did not base the statement on treaty law, but referred to "certain general and well-recognized principles."[74] Thus, the ICJ recognized the existence of general principles of law prohibiting states from violating the rights of or inflicting damage on other states. Following both *Corfu Channel* and *Trail Smelter*, the ICJ was largely silent for a considerable period of time on the duty to prevent transboundary harm. However, a number of international treaties and declarations emerged that furthered the development of the duty within CIL.

b. Principle 21 and 2 and treaty law

As mentioned earlier, for a treaty to form CIL, it will need to have a "fundamentally norm-creating character" or a "normative character" to it. The content of the duty to prevent transboundary harm has been articulated in treaty law, and this articulation has contributed to its CIL status.[75] The duty has been articulated in two important declarations – the 1972 *Stockholm Declaration* and the 1992 *Rio Declaration.* Under Principle 21 from Stockholm:

> States have, in accordance with the Charter of the United Nations and the principles of international law, the sovereign right to exploit their own resources pursuant to their own environmental policies, and the responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other States or of areas beyond the limits of national jurisdiction.[76]

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[72] *Ibid,* at 15.
[73] *Ibid,* at 22.
[74] *Ibid.*
[75] Pierre-Marie Dupuy, "Overview of the Existing Customary Legal Regime Regarding International Pollution" in Daniel Barstow Magraw eds, *International Law and Pollution* (University of Pennsylvania Press 1991) at 64 [hereinafter Dupuy (1991)].
[76] *Declaration of the United Nations Conference on the Human Environment*, 16 June 1972, at Principle 21 [hereinafter *Stockholm Declaration*].

Principle 21 was reproduced almost verbatim in Principle 2 of the *Rio Declaration.*[77] Together, both declarations have exercised considerable influence on the development of international environmental law and have since been duplicated in multiple treaties.[78] This repetition of the principles in the text of numerous treaties provides an example of treaties contributing to the development of CIL.[79] In addition, the repetition of Principles 21 and 2 demonstrates their "normative character". Large numbers of states have ratified the treaties mentioning these principles; the clearly believe that the duty of prevention results in a legal obligation.

Although there are over 200 international agreements dealing with environmental matters, only a handful deal specifically with transboundary pollution.[80] Article 192 of the *UN Convention on the Law of the Sea* expresses the general requirement of prevention by affirming that "[s]tates have the obligation to protect and preserve the marine environment."[81] Article 7 of the 1997 *UN Convention on the Non-Navigational Uses of International Watercourses* affirms the same duty in international freshwater.[82] Furthermore, the 1992 *Convention on Biological Diversity* lists the measures to ensure conservation and sustainable use of biological resources within states parties.[83] Other multilateral environmental agreements have dealt with transboundary pollution directly:

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[77] *Rio Declaration on Environment and Development,* 12 August 1992, A/Conf.151/26 (Vol.1) at Principle 2 (hereinafter *Rio Declaration*]
[78] Kiss & Shelton, *supra* note 16 at 284;
[79] *Sands, supra* note 61 at 145.
[80] Merill, *supra* note 62, at 933.
[81] *United Nations Convention on the Law of the Sea,* 10 December 1982, No. 31363 at Art 192 (entered into force 16 November 1994).
[82] *United Nations Convention on the Non-Navigational Uses of International Watercourses*, 21 May 1997, No 52106 at Art 2 (entered into force 17 August 2014).
[83] *Convention on Biological Diversity*, 5 June 1992, No. 30619 (entered into force 29 December 1993) at preamble, Art 1.

the *1991 Convention on Environmental Impact Assessment in a Transboundary Context*, the *Convention on the Protection and Use of Transboundary Watercourse and International Lakes*, the *Convention on Long-Range Transboundary Air Pollution*, the *Montreal Protocol on Substances that Deplete the Ozone Layer*, the *United Nations Framework Convention on Climate Change*, and the *Cartagena Protocol on Biosafety to the Convention on Biological Diversity*.[84] As well, Article 8 of the *Paris Agreement* states that "Parties recognize the importance of averting, minimizing and addressing loss and damage associated with adverse effects of climate change."[85] While Article 8 does not form a binding requirement, it does recognize that states are aiming to reduce damages stemming from climate change, which resembles the duty of prevention. Since determining CIL is not a quantitative analysis, the volume of treaties does not determine custom. Thus, the relatively small number of environmental treaties addressing transboundary pollution and the duty to prevent is not an indication one way or the other of CIL status. Even though there may only be a limited number of treaties implementing the duty of prevention, this may still adequately establish state practice and *opinio juris*.

As the next section highlights, while states recognize the duty to prevent, they sometimes cause environmental damage in other states' boundaries. This reality has been dealt with by the ICJ.

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[84] *1991 Convention on Environmental Impact Assessment in a Transboundary Context*, 25 February 1991, No. 34028 (entered into force 10 September 1997); *Convention on the Protection and Use of Transboundary Watercourse and International Lakes*, 17 March 1992; No. 33207 (6 October 1996); *Convention on Long-Range Transboundary Air Pollution*, 13 November 1979, No. 21623 (entered into force 16 March 1983); *Montreal Protocol on Substances that Deplete the Ozone Layer*, 16 September 1987, No. 26369 (entered into force 1 January 1989), preamble; *United Nations Framework Convention on Climate Convention*, 9 May 1992, No. 30822 (entered into force 21 Match 1994) at Art 2 [hereinafter *1992 Climate Change Convention*];, Art 1; *Cartagena Protocol on Biosafety to the Convention on Biological Diversity*, 29 January 2000, No. 30619 (entered into force 11 September 2003) at Art 1.

[85] *Paris Agreement*, *supra* note 2 at Art 8.

c. ICJ case law

The ICJ has issued five important decisions dealing specifically with the duty to prevent transboundary harm. In the ICJ's first decision since Principle 21 of the *Stockholm Declaration* was adopted, a dispute arose between New Zealand and Australia against France concerning the atmospheric nuclear tests conducted in the South Pacific by the French Government from 1966 to 1972.[86] These cases are referred to as the *Nuclear Test Cases I*. The main issue in the case was whether the radioactive fallout from the nuclear testing was inconsistent with rules of international law.[87] The court found that, since France intended to cease atmospheric testing in the South Pacific, the objectives of New Zealand's applications had been accomplished and the dispute no longer existed.[88] However, Principle 21 was addressed by both New Zealand and Australia, which may indicate *opinio juris.*[89] For example, Australia argued that Principle 21 addressed "the very center of the problem in the present case" and suggested it as a rule of CIL that prohibited atmospheric nuclear tests.[90] It was further argued that "the traditional standards of state freedom to pursue activities which may affect them must undergo some restriction."[91] However, the added separate opinions of these cases

[86] *Nuclear Tests case (Australia v. France),* [1974] ICJ Rep 253 (hereinafter *Australia v. France*); *Nuclear Tests Case (New Zealand* v. *France),* [1974] ICJ Rep 457 (hereinafter *New Zealand v. France*).
[87] *Ibid, New Zealand v. France),* at para. 28; *Nuclear Tests I,(Australia v. France)* at para. 11.
[88]*Ibid, New Zealand v. France,* at paras. 55-56 and *Australia v. France,* at para. 59.
[89] *Ibid, New Zealand v. France*, at paras. 55-56 and *Australia v. France,* at para. 59. NEED TO FIND
[90] *Ibid, Australia v. France,* Provisional Measures, Oral Proceedings at p. 185
[91] *Ibid*

demonstrate how divided the judges were in their views on the legal status not to prevent transboundary harm.

The majority opinion and the dissent of Judge Petrén and Judge Castro in *Australia v. France* came to completely different conclusion on the customary status of the duty of prevention. Judge Petrén claimed that the argument brought forth by Australia and New Zealand depended on the CIL that prohibited states from conducting atmospheric tests on nuclear weapons giving rise to radioactive fall-out on the territory of other states.[92] However, he concluded there was no such rule of CIL due to lack of state practice, as it was not clear that a sufficient number of states manufacturing nuclear weapons refrained from carrying out atmospheric tests because they considered this to be prohibited under international law.[93] On the other hand, Judge Castro took a different approach in his dissenting opinion.[94] He noted that Australia's complaint against France was "based on a legal interest which has been well known since the time of Roman law," namely the *sic utere* principle. He pointed that it is a feature of modern law that the owner of a property is liable for smoke and smells that overstep the physical limits of their property, and referred both to *Trail Smelter* and *Corfu Channel*.[95] Therefore, Judge Castro believed that France should cease the deposit of the radioactive fall-out upon other territories.[96] These differing opinions illustrate Brownlie's differing judicial approaches to interpreting CIL. Judge Petrén took a strict interpretation to finding *opinio juris,* as the 1972 *Stockholm Declaration* that established Principle 21 had not been in existence long

[92] *Ibid.* pp. 185-186.
[93] *Ibid.* p. 306
[94] *Ibid,* para 372.
[95] *Ibid,* at para 388-389
[96] *Ibid,* at para 389.

enough to discern CIL. On the other hand, Judge Castro took a more liberal interpretation, stating that the principle was applied in prior case law and stems from a general principle of property law (*sic utere*).

In 1995, the *Nuclear Tests II* was submitted to the ICJ when France decided to carry out a series of underground nuclear tests in the South Pacific. In response, New Zealand attempted to reactivate the proceedings from 1974.[97] The question before the ICJ was whether these new tests violated New Zealand's rights under international law and whether it was unlawful for France to undertake tests without conducting an environmental impact assessment.[98] The court concluded that since France was dealing with underground tests and the 1974 case concerned atmospheric tests, the court would not take account of the arguments derived by New Zealand to reactivate the case.[99] However, in *obiter dictum*, the court stated the present order was "without prejudice to the obligations of States to respect and protect the natural environment, obligations to which both New Zealand and France have in the present instance reaffirmed their commitment."[100] This "obligation of States" indicates that the court recognized the obligation to protect the natural environment as CIL. In the case, New Zealand argued that the duty to prevent transboundary harm was a "well established principle of customary international law",[101] and France recognized that a general obligation to protect the environment existed.[102] In the decision, Judge Weeramantry stated that "no

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[97] *Request for an Examination of the Situation in Accordance with Paragraph 63 of the Court's Judgment of 20 December 1974 in the Nuclear Tests Case, (New Zealand v. France),* [1005] ICJ Rep 288 [hereinafter *Nuclear Test Case II*].
[98] *Ibid,* para. 6.
[99] *Ibid,* para. 63.
[100] *Ibid.* para. 64
[101] *Nuclear Tests II,* Oral Proceedings, p. 11.
[102] *Ibid.* at 5

nation is entitled by its own activities to cause damage to the environment of any other nation" and that this was a rule of CIL.[103] Also in dissent, Judge Kormoa stated that "under contemporary international law, there is probably a duty not to cause gross or serious damage which can reasonably be avoided, together with a duty not to permit the escape of dangerous substances."[104] Also in dissent, Judge Palmer did not address the principle's legal status, but recognized that the "obvious and overwhelming trend of these developments from Stockholm and Rio has been to establish a comprehensive set of norms to protect the global environment."[105] Therefore, while the three dissenting judges did not officially establish the duty of prevention of transboundary harm as CIL, they nonetheless contributed to its development.

In the 1996 Advisory Opinion on the *Legality of the Threat or Use of Nuclear Weapons*, the ICJ dealt with the environmental impact of the use of nuclear weapons, asking whether "the threat or use of nuclear weapons in any circumstance is permitted under international law."[106] In this case, the court recognized that the environment "is under daily threat and that the use of nuclear weapons could constitute a catastrophe."[107] Furthermore, the environment "is not an abstraction but represents the living space, the quality of life and the very health of human beings, including generations unborn."[108] The court stated: "[t]he existence of the general obligation of States to ensure that activities within their jurisdiction and control respect the environment of other States or of areas beyond national control is now part of the corpus of international law relating to

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[103] *Ibid*, at 347.
[104] *Nuclear Test Case II*, *supra* note 97 at 378.
[105] *Ibid*, at 409.
[106] *Legality of the Threat or Use of Nuclear Weapons, supra* note 61 at para 1.
[107] *Ibid*, at para 29.
[108] *Ibid*.

the environment."[109] Moreover, Principle 21 of the *Stockholm Declaration* was invoked.[110] Although the court found that the use of nuclear weapons was not specifically prohibited by existing international law, it emphasized that international law did indicate "important environmental factors that are properly taken into account" during armed conflict.[111] Regardless, the importance of this decision is that the duty of prevention was recognized as being part of the "corpus of international law relating to the environment".

The *Gabčíkovo-Nagymaros* case provides additional support for the duty of prevention forming CIL. This case involved the construction of a barrage system on the River Danube affecting Hungary and Czechoslovakia.[112] Hungary would eventually abandon a section of the project due to concerns for its natural environment.[113] Czechoslovakia began looking for alternative solutions. Among them was Variant C, which entailed a unilateral diversion of the river.[114] In 1993, Slovakia, which was now an independent state, proceeded to dam the river, and the dispute was submitted to the ICJ.[115] The court emphasized "the great significance that it attaches to respect for the environment."[116] The court recited the Advisory Opinion on the *Legality of Nuclear Weapons* discussing the general obligation on states to ensure that their activities respect the environment of other states or of areas beyond national control being part of "the corpus of international law relating to the environment."[117] This indicates that the court

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[109] *Ibid*, at para 29, 32.
[110] *Ibid*, at para 27.
[111] *Ibid*, at para 33.
[112] *The Gabčíkovo-Nagymaros Project case (Hungary v. Slovakia)*, [1997] ICJ Rep 7 [hereinafter hereinafter *Gabčíkovo-Nagymaros*).
[113] *Ibid*, at para 22.
[114] *Ibid*, at para 23.
[115] *Ibid.*
[116] *Ibid*, at para 53.
[117] *Ibid.*

considered the general obligations referred to in the Advisory Opinion to have a customary status.[118]

Further cementing the duty of prevention's status as CIL is *Pulp Mills*. This dispute arose when Uruguay authorized and started the construction of two pulp mills along the banks of the River Uruguay, which borders Argentina.[119] In 1975, both countries entered a treaty regarding the River Uruguay. This treaty required a party that is undertaking potentially damaging activities to notify the other; importantly, this party could proceed only if the notified country had no objections.[120] In 2006, Argentina filed an application to the ICJ instituting proceedings, where it expressed concerns that the mills posed "major risks of pollution of the river, deterioration in biodiversity, harmful effects on health and damage to fish stocks."[121] The ICJ repeated a statement from *Corfu Channel* that it is "every State's obligation not to allow knowingly its territory to be used for acts contrary to the rights of other States."[122] The court ruled that there were substantive obligations to take all necessary measures to ensure the optimum utilization of the river and to prevent transboundary environmental damage.[123] It was also stated that the duty of prevention, as a customary rule, had its origin in "the due diligence that is required of a State in its territory."[124] The court further pointed to the Advisory Opinion on the *Legality of Nuclear Weapons* that the obligation of states to use all means at their disposal to avoid environmentally damaging activities from causing harm to other states

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[118] Owen McIntyre, "International Protection of International Rivers" (1998) 10 J Enviro L 79 at 85.
[119] *The Case Concerning Pulp Mills on the River Uruguay(Argentina v. Uruguay),* (2010) ICJ Rep 14 [hereinafter *Pulp Mills*].
[120] *Ibid*, at para 6-7.
[121] *Ibid*, at para 15.
[122] *Ibid.*
[123] *Ibid*, at para 24.
[124] *Ibid*, at para 101.

was part of the "corpus of international environmental law".[125] Therefore, the *Pulp Mills* decision further solidifies the duty of prevention's status as a CIL.

It appears the ICJ was willing to infer an *opinio juris* from the general principle of protecting the environment that was reflected in international treaties. As indicated earlier in this essay, a decision by the ICJ is highly influential in determining the customary status of a usage.[126] There is a clear line of international case law dealing with the duty of prevention and several international treaties and declarations. This long line of agreement at the international level indicates that the duty of prevention has become CIL. Still, another issue arises. Prior case law has not dealt with GHG emissions specifically and this must be addressed to determine whether the duty of prevention can apply within the context of climate change.

4. The Operation of the Duty

To determine whether the duty to prevent transboundary harm applies to climate change, the contours of the duty must be understood. To understand these contours, it must be asked what a state is required to do to prevent the duty of transboundary harm. This main question relates to the standard of care applicable to the obligation of states to ensure activities within their jurisdiction do not cause cross-boundary damages.[127] This essay will argue that states have a due diligence standard of care when preventing significant transboundary damage. Furthermore, this essay will analyze the *ILC*

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[125] *Ibid*, at para 193.
[126] *See* Wood, *supra* note 10 at 34
[127] *Ibid.*

Prevention Articles to determine what level of risk is needed before a state is required to act.

a. Due diligence

The most coherent interpretation of the standard of care for the duty of prevention is a due diligence obligation. The due diligence obligation is stated directly in the *ILC's Prevention Articles*. The ILC states, regarding transboundary harm from hazardous activities, that "the obligation of the State of origin to take preventive or minimization measures is one of due diligence."[128] The conclusion is suggested by the wording of the duty to prevent transboundary harm in Principle 21 and 2 as an obligation "to ensure" – a phrase that has often been used to suggest due diligence rather than strict liability.[129] The OECD's Environment Committee also identified a "custom-based rule of due diligence imposed on all states in order that activities carried out within their jurisdiction do not cause damage to the environment of other states."[130] A due diligence obligation means that the duty to prevent transboundary harm does not require that the state of origin's intention be to injure.[131] Instead, states must take all measures to control and restrain likely harmful activity that can reasonably be excepted.[132] The duty does not impose an absolute duty to prevent harm, but rather requires each state to prohibit those activities

[128] *Draft articles on Prevention of Transboundary Harm from Hazardous Activities*, (2001) International Law Commission, fifty third session, A/56/10 148 at Art 3 [hereinafter *ILC Prevention Articles*].
[129] *Ibid.*
[130] Cited in Benoit Mayer, "The Relevance of the No-Harm Principle to Climate Change Law and Politics," (2016) 19 Asia-Pacific J Enviro L 79 at 92 [hereinafter Mayer (2016)].
[131] Ulrich Beyerlin & Thilo Marauhm, *International Environmental Law* (Oxford: Hart Publising Ltd) at 284 [hereinafter Beyerlin & Marauhm].
[132] *Ibid.*

known to cause significant harm to the environment, such as mitigating harm form lawful activities that may harm the environment.[133]

The due diligence standard needs further clarification to understand what level of effort a state is expected to make in the context of climate change. Under the *ILC Prevention Articles*, a state is required to "take all appropriate measures to prevent significant transboundary harm or at any event to minimize the risk thereof."[134] This requires the state of origin to exert its "best possible efforts" to avert or to minimize the risk.[135] It follows that "due diligence is manifested in reasonable efforts by a State to inform itself of factual and legal components that relate foreseeability to contemplated procedure and to take appropriate measures, in timely fashion, to address them."[136] In the same sense, the ICJ in the *Pulp Mills* case considered that a state has the obligation "to use all the means at its disposal in order to avoid activities which take place in its territory, or in any area under its jurisdiction, causing significant damage to the environment of another State."[137] Therefore, it appears the state is required to use all "reasonable efforts" or "means at its disposal" to reduce the risk.

The criterion of "reasonableness" entails a considerable degree of uncertainty and it must be discerned what "reasonableness" requires in the context of preventing transboundary harm. Under the *ILC Prevention Articles*, states must do the "best they can" with the relevant technical standards, such as the "best available technology" and

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[133] Kiss & Shelton, *supra* note 16 at 91.
[134] Nicolas de Sadeleer, *Environmental Principles: From Political Slogans to Legal Rules* (Oxford Scholarship Online: 2020) at 86 [hereinafter de Sadeleer].
[135] *Ibid.*
[136] *ILC Prevention Articles*, *supra* note 128 at Art 3(7).
[137] *Pulp Mills*, *supra* note 119 at para 101.

"best environmental practices".[138] Furthermore, in the *Trail Smelter* case, it was accepted that a due diligence standard was to apply having regard to the capacity of Canada, via improving emissions control technologies to limit transboundary damage.[139] The *Trial Smelter* case and the *ILC Prevention Article* suggest that these due diligence obligations may be imposed according to a state's "capabilities", which considers differences in their economic and technological development stages.[140] Where a state has made a reasonable due diligence effort to prevent significant transboundary harm, it cannot be made responsible for harm that occurs nonetheless, but the state will still have to act to prevent further damages.[141] This interpretation, that states must do the best they can within their capabilities, is consistent with the reasonableness criteria, as it cannot be expected a state will go above and beyond its "best possible efforts" to prevent the transboundary harm.

b. The degree of risk

Since it is established that a state must make a due diligence effort to reduce risk, a different issue arises when applying a state's effort to the degree of risk. Not all transboundary harms are equal. Some carry a far greater risk than others. In this regard, the extent of the required diligence increases in proportion with the severity of the risk, meaning a higher standard of care applies to activities which may be considered more hazardous than average.[142] It is stated in the *ILC Prevention Articles* that "the standard of

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[138] Gunther Handl, "Transboundary Impacts" in Daniel Bodansky, Jutta Brunée & Ellen Hey, eds, *The Oxford Handbook of International Environmental Law* (Oxford Handbooks in Aw, 2008) 532 at 540 [hereinafter Handl].
[139] Timothy Stephens, *International Courts and Environmental Protection* (Cambridge University Press, 2009) at 158.
[140] Akiko Takano, "Due Diligence Obligations and Transboundary Environmental Harm: Cybersecurity Applications" 7:4 Laws 36 at 40 [hereinafter Takano].
[141] Simlinger & Mayer, *supra* n 6 at 187.
[142] De Sadleer, *supra* note 134 at 96.

due diligence is that which is generally considered to be appropriate and proportional to the degree of risk of transboundary harm in the particular instance."[143] In other words, the regulation that must be implemented is circumstantial, with a higher level due diligence required as the risk increases.[144]

There have been three different interpretations on how to evaluate the level of risk required in order to compel a state to make a due diligence effort. Under Article 3 of the *ILC Prevention Articles*, "the State of origin shall take all appropriate measures to prevent significant transboundary harm or at any event to minimize the risk thereof."[145] Two of these interpretations are done by the ILC: according to Gunter Handl, this divides situations into events involving "significant transboundary harm", which states are required to "prevent", and those where States must "minimize the risk thereof".[146] Therefore, the two threshold factors are "significant transboundary harm" and "risk thereof". The third interpretation is done by a number of academics, which is the *de minimis* threshold.[147] This paper argues in favour adopting the *de minimis* threshold, which provides a much lower threshold to compel states to take action prevent transboundary harm.

The "significant transboundary risk" threshold, while sounding simple, is actually quite convoluted. Article 2(a) of the *ILC Prevention Articles* clarifies the threshold proof of "significant transboundary harm" as including risk both of a "high probability of causing significant transboundary harm and a low probability of causing disastrous

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[143] *ILC Prevention Articles*, *supra* note 128 at Art 3(11).
[144] *Ibid*, at 3(17).
[145] *Ibid*, at Art 3.
[146] Handl, *supra* note 138 at 540.
[147] Beyerlin & Marauhm, *supra* note 131 at 294.

transboundary harm."[148] When determining the scope of the obligation to prevent the occurrence of "significant transboundary harm", it is necessary to take account of the combined effect of the likelihood of occurrence and the magnitude of its injurious impact.[149] Therefore, the "significant transboundary harm" threshold appears be capable of incorporating climate change, since it takes into account the combined effect of all the potential consequences. Regardless, the *de minimis* approach provides far greater clarity as to when a state is required to act.

The *ILC Prevention Articles* does not provide an explanation as to what a "risk thereof" entails. However, Handl claims a "risk thereof" means a "mere risk of significant transboundary harm."[150] Under this interpretation, a state is only obligated to minimize the transboundary harm.[151] This has caused some confusion as to what a state ought to do to minimize the "risk thereof".

According to Handl, the ILC's approach is problematic when it differentiates between certain harm (to be prevented) and less than certain harm (to be minimized).[152] This differentiation is based on the probability of the harm alone rather than on the composite of probabilities and consequences of the future event.[153] In this normative scheme, a 'mere' risk of significant transboundary harm does not attract an obligation of prevention.[154] Handl asserts that uncertain future harm, no matter how potentially catastrophic its nature and scope, does not *eo ipso* attract a legal obligation to end the risk

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[148] *ILC Prevention Articles*, supra n 128 at Art 2(a).
[149] *Ibid*, at Art 2(2).
[150] Handl, *supra* note 138 at 540.
[151] *Ibid.*
[152] *Ibid.*
[153] *Ibid.*
[154] *Ibid.*

bearing activity.[155] As a result, the ILC's interpretation of the duty of prevention does not amount to CIL.

A different approach to analyzing whether a "significant transboundary risk" occurs is by requiring a lower threshold. Several scholars have called for a *de minimis* burden of proof, meaning that, if the harm is not minor, the threshold is crossed.[156] This approach can be read consistently with the *ILC Prevention Articles*, as the commentaries define "significant" as something more than "detectable", which need not reach the level of "serious" or "substantial."[157] In other words, the harm must entail real detrimental effects in areas such as human health, industry, poverty, environment, etc.[158] Emphasizing a *de minimis* approach will lead to few problems in finding that GHG emissions cross the burden of proof threshold because it is much clearer than the ILC's interpretation, which will compel states to act in the context of mitigating the harms done by climate change.

5. The Duty in The Context of Climate Change

As the case law from the ICJ has demonstrated, the duty on states to prevent transboundary harm is recognized as CIL. However, these cases, for the most part, dealt with singular instances of harm. For example, in *Trail Smelter*, the case concerned a single factory in Canada, pollutants from which flowed across the border. In the 1949 *Corfu Channel* case, Albania was held responsible for specific damages to British warships and the death of 44 people in the North Corfu Strait.[159] In addition, *Pulp Mills*

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[155] *Ibid.*
[156] Beyerlin & Marauhm, *supra* note 131 at 294.
[157] *ILC Prevention Articles*, supra note 128 at Art 2(4).
[158] *Ibid.*
[159] *Corfu Channel*, *supra* note 70.

and *Gabčíkovo-Nagymaros* deal with specific, identifiable instances of harm caused by damage to waterways. The facts of these cases are different from the harm caused by GHG emissions, especially considering that emissions are produced by virtually every aspect of the economy. While the *Nuclear Tests Cases* dealt with the accumulation of atmospheric pollution, ultimately the victim state was unsuccessful in its claim.

The question that arises from these cases is whether the duty of prevention can be applied in the context of climate change. This paper argues that it can. The Advisory Opinion on *The Legality of Nuclear Weapons* provides a useful analogy to GHG emissions. What is relevant is not the quantity of emission by a state in a single year, but its emission over decades because of inadequate policy decisions by national governments over time.[160]

Many scholars arguing against the duty of prevention being applied to climate change misunderstand the functionality of the actual duty. Its purpose is not to eliminate all harmful GHG emissions, but to balance the duty not to cause transboundary harm with the State's right to develop its economy.[161] When seen through this perspective, it becomes clear that the duty is not all-or-nothing. Since it will be impossible to completely eliminate emissions at the present moment, states will still be granted the right to continue emitting harmful substances to develop their economies. Instead, the duty to prevent transboundary harm obliges states to slowly eliminate their emissions.

a. Climate Change and the Legality of Nuclear Weapons Case

[160] Benoit Mayer, "The Place of Customary Norms in Climate Law: A Reply to Zahar," (2018) 8:3-4 Cimate L 261 at 266 [hereinafter Mayer (2018)].
[161] Dupuy (1991), *supra* note 76 at 64.

Before analyzing whether the duty of prevention applies in the context of GHG emissions, the consequences of climate change should be summarized. The ability of one state to significantly impact the territory of another should not be underestimated. Economically, although the "[g]lobal economic impacts from climate change are difficult to estimate," the International Panel on Climate Change suggested that an increase of the global average temperature by 2°C would cause global annual economic losses at a minimum between 0.2 and 2.0% of global incomes.[162] Stemming from the increase in frequency and intensity of extreme weather events, climate change has adversely impacted food security, affected terrestrial ecosystems, and contributed to desertification and land degradation in many regions.[163] As the majority in the SCC noted in the landmark *GPPAA Reference*:

> Canada is also expected to continue to be affected by extreme weather events like floods and forest fires, changes in precipitation levels, degradation of soil and water resources, increased frequency and severity of heat waves, sea level rise, and the spread of potentially life-threatening vector-borne diseases like Lyme disease and West Nile virus.[164]

The impacts of climate change are already having a massive toll on human life. The World Health Organization (WHO) estimates that climate change is currently causing the deaths of 150,000 people worldwide each year, and this is expected to increase to 250,000-300,000 between 2030 and 2050.[165] What this suggests is that emitting GHG

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[162] Christopher B Field and others, "Summary for Policymakers" n Christopher B Field and others, eds, *Climate Change 2014: Impacts, Adaptation, and Vulnerability: Volume 1, Global and Sectoral Aspects (Working Group II Contribution to the IPCC Fifth Assessment Report*) (CUP, Cambridge 2014) 1 at 4-7.
[163] Almut Arneth and others, "Summary for Policy Makers" in Valerie Masson_Delmotte and others, eds, in *Climate Change and Land: An IPCC Special Report on climate change, desertification, land degradation, sustainable land management, food security, and greenhouse gas fluxes in terrestrial ecosystems* (IPCC 2020) 1 at 9.
[164] *Reference Greenhouse Gas Pollution Pricing Act*, 2021 SCC 11 at para 10 [hereinafter *GGPPA Reference*]
[165] "Climate Change", *World Health Organization*, online: < https://www.who.int/health-topics/climate-change#tab=tab_1>.

emissions is incredibly destructive, and that, in some respects, it does not matter where the emissions come from, because it GHG emissions collectively impact the entire world.

Florentina Simlinger and Benoit Mayer argue that climate change differs from the previously mentioned cases in at least three pivotal ways.[166] First, damages from climate change result not from a single act of a state but stem from states' longstanding reliance on fossil fuels.[167] Second, damages from climate change occur as a result of the concomitant conduct of multiple states, with the resulting harm not confined to a single state but affecting virtually all states.[168] Finally, the harm results not from one particular activity, but from an accumulation of many activities over decades.[169] These three reasons create difficulties when applying the duty to prevent transboundary harm to climate change.

The *Legality of the Threat of Nuclear Weapons* case represents an important analogy in the context of climate change. As Simlinger and Mayer indicate, some states in their submissions (Mexico, Egypt, and Ecuador) argued that the possibility of repeated use of nuclear weapons could cause a "nuclear winter" leading to a cataclysmic upheaval of the climate system, destroying most of earth's life.[170] According to Simlinger and Mayer, when mentioning that the damages caused by nuclear weapons could not "be contained in either space or time" and had "the potential to destroy all civilization and the entire ecosystem of the planet,"[171] the ICJ made no distinction between immediate damage and damage caused by cumulative causation.[172] In doing so, the court implied

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[166] Simlinger & Mayer, *supra* note 6 at 187.
[167] *Ibid.*
[168] *Ibid.*
[169] *Ibid.*
[170] *Ibid.*
[171] *Legality of the Threat or Use of Nuclear Weapons, supra* note 61 at para 35.
[172] *Ibid.*

that duty of prevention applied equally to both.[173] These facts are analogous to GHG emissions. If two states launch nuclear weapons at each other continuously in a short period of time, the consequences are the devastation of our planet's environment. States which have no part in the conflict will still suffer significantly. Similarly, if multiple large emitting states continuously emit GHGs over a long period of time, the result has the potential to be equally globally devastating.[174] Furthermore, small developing countries, where emissions are relatively low, will be innocent bystanders.[175] Additionally, the differences in the immediacy between a nuclear war and the slower nature of climate change should not be a deciding factor since the ultimate consequences are potentially the same. Consistent with the *ILC Prevention Articles*, the focus ought to be on the significance of the risk. The duration of how the risk unfolds is irrelevant to a state's duty to prevent transboundary harm.

Importantly, the *ILC Prevention Articles* do not explicitly mention GHG emissions as an example. The *ILC Prevention Articles* simply summarize the multilateral treaties in which the duty to prevent transboundary harm has already been agreed, including treaties addressing nuclear accidents, space objects, international watercourses, management of hazardous wastes and prevention of marine pollution.[176] It should be noted that the *ILC Prevention Articles* were written in 2001, before states agreed under

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[173] *Ibid.*
[174] In the World Economic Forum risk assessment, climate change was seen to have the second greatest risk impact, behind only infectious diseases, and greater impact than weapons of mass destruction. Climate action failure was also seen to have the second highest likelihood of occurring, behind only extreme weather events: "The Global Risks Report 2021" *World Economic Forum* (15 January 2020), online: < http://www3.weforum.org/docs/WEF_The_Global_Risks_Report_2021.pdf>.
[175] Less than one percent of historical anthropogenic GHG emissions are accounted for by the least developed countries: "LDC – The least developed countries report 2017: Facts and Figure" *UNCTAD* (22 November 2017), online: < https://unctad.org/press-material/ldc-least-developed-countries-report-2017-facts-and-figures>.
[176] At (5).

Article 8 of the *Paris Agreement* to "recognize the importance of averting, minimizing and addressing loss and damage associated with adverse effects of climate change."[177] The exclusion of references to the duty of prevention principle in response to climate change in the *ILC Prevention Articles* does not undermine its application to the duty of prevention.[178] As Mayer indicates, states that argue that this exclusion means GHG emissions are inapplicable to the duty are operating under a misunderstanding.[179] This misunderstanding is the belief that the duty to prevent transboundary harm requires a state to completely eliminate the harmful activity all together.

It is often assumed that including GHG emissions into the duty of preventing transboundary harm would create unrealistic objectives, such as industrialized states forced to cover *all* of the expenses that could be attributed to the adverse impacts of climate change, or an absolute cessation of a given activity.[180] However, in *Trail Smelter* it was stated:

> It would not be to the advantage of the two countries concerned that industrial effort should be prevented by exaggerating the interests of the agricultural community. Equally, it would not be to the advantage of the two counties that the agricultural community should be oppressed to advance the interest of industry.[181]

The duty of prevention does not create an absolute duty of cessation, which would have been impossible to fulfill, or at least, impossible to impose on the parties in *Trail Smelter*.[182] Rather, It is about the balancing of interests in a sustainable manner. Under this balancing act, and as this essay will demonstrate next, the principle of sovereignty

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[177] *Paris Agreement*, *supra* n 2 at Art 8.
[178] Benoit Mayer, "The Relevance of the No-Harm Principle to Climate Change Law and Politics," (2016) 19 Asia-Pacific J Enviro L 79 at 92 [hereinafter Mayer (2016)].
[179] *Ibid.*
[180] *Ibid.*
[181] *Trail Smelter*, *supra* note 7 at 1939.
[182] Mayer (2016), *supra* note 130 at 97.

remains important to a state's right to develop. In the context of the duty of prevention for climate change, a state's right to emit in order to develop must be balanced with preventing or minimizing the consequences of these emissions.

b. Sovereignty

The principle of a state's sovereignty over its natural resources is applicable to the duty to prevent harm. Sovereignty allows for states to conduct activities that utilize the natural resources within their territories, even when these activities adversely impact the environment.[183] This is rooted in the principle of permanent sovereignty over natural resources formulated in various UN resolutions since 1952.[184] For example, the UN General Assembly in 1962 adopted a landmark resolution that the "rights of peoples and nations to permanent sovereignty over their natural wealth and resources must be exercised in the interest of their national development of the well-being of the state concerned."[185] This reflects a state's right to permanent sovereignty over its natural resources as an international legal right under international law. This right is also reflected in a number of environmental treaties. For example, the *1992 Climate Change Convention* reaffirmed "the principle of sovereignty of states in international co-operation to address climate change."[186] Additionally, the 1992 *Convention on Biological Diversity* reaffirmed that states have "sovereign rights … over their natural resources" and that "the

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[183] *Sands, supra* note 61 at 236; this does not mean that a state is subject to no limits on what it can do within its borders. States are also party to treaties, including international human rights treaties, which create obligations to people within their borders, and these obligations (such as the right to self-determination by Indigenous peoples and the right to health) may limit a state's domestic actions with respect to natural resources: Anthony J. Hall, "Treaties with Indigenous Peoples in Canada," (11 Setepmber 2017), *The Canadian Encyclopedia*, accessed online at: < https://www.thecanadianencyclopedia.ca/en/article/aboriginal-treaties>.
[184] *Ibid.*
[185] UNGA Res. 1803 (XVII)(1962).
[186] *Climate Change Convention, supra* note 84 at preamble.

authority to determine access to genetic resources rests with national governments and is subject to national legislation."[187] The *Paris Agreement* even adds that the framework will be "respectful of state sovereignty."[188] This obligation results from the requirement of peaceful co-existence between states' interests, but neither the principle of sovereignty nor the principle to prevent transboundary harm is absolute.[189]

Important to the duty to prevent transboundary harm, states are still free to extract their resources within their borders. This includes activities that cause the release of GHG emissions. Yet, the duty implies a compromise between the territorial sovereignty of the state of origin and the territorial integrity of the state likely to be affected by the harm.[190] The compromise under the duty of prevention clearly favours territorial integrity over territorial sovereignty.[191] Since the contemporary international legal system is based on states being equal sovereigns, states could not be equal if one state was permitted to seriously interfere with the internal affairs of another.[192] For example, one state could not be an equal sovereign with another if it was permitted to render the territory of another uninhabitable through causing environmental harms that cross international borders.[193] However, the concept of sovereignty means states are not obligated to eliminate every source of harmful activity.

With this balancing act between the sovereign right to develop resources and the duty of prevention, states are allowed to continue their emitting activities while taking the

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[187] *Convention on Biological Diversity*, 5 June 1992, No. 30619 at Art 15(1) (entered into force 29 December 1993).
[188] *Paris Agreement*, *supra* n 2 at Art 13(3).
[189] De Sadleer, *supra* note 134 at 86.
[190] Beyerlin & Marauhm, *supra* note 131 at 40.
[191] *Ibid.*
[192] Simlinger & Mayer, *supra* note 6 at 186.0
[193] *Ibid.*

necessary steps to prevent or minimize the future harms of climate change. This should be clear evidence that the duty of prevention applies to GHG emissions; a state will still be allowed to continue emitting as long as active steps are taken to reduce these emitting sources. Furthermore, when evaluating whether the duty of prevention applies to climate change, there is a clear development of ICJ case law beginning with the *Nuclear Test Cases* and the assertion by the ICJ that the duty to prevent consequences of nuclear weapons is CIL. This analogy applies directly to the context of climate change, as the consequences are similar. Since the ICJ has clearly labelled the duty of prevention as CIL, and the duty applies in the context of climate change, the question then becomes what Canada's responsibility is to prevent emissions, and whether Canada is meeting this responsibility.

6. Customary Law and the Duty of Prevention in Canada

Canada, as a wealthy industrialized country, has long contributed more to the climate change problem by emitting more GHG emissions compared to other states. In fact, Canada ranks seventh in the world in per capita emissions.[194] Therefore, Canada has considerable responsibility to reduce its emissions to prevent transboundary harm. How is Canada meeting this responsibility? This essay argues that a carbon pricing system, which Canada has adopted under the *Greenhouse Gas Pollution Pricing Act,* is the most

[194] "Per Capita Emissions", *Navigating the Numbers: Greenhouse Gas Data and International Climate Policy – Part I,* online at: <http://pdf.wri.org/navigating_numbers_chapter4.pdf>.

effective way to prevent transboundary harm. But first, it must be established how CIL applies to Canada.

a. Canada's adoption of CIL

International law is incorporated into domestic law in two ways: the (1) monist approach and (2) the dualist approach.[195] The dualist method requires an international law to be expressly received (or transformed) by some executive and/or legislative action.[196] When it comes to treaties, Canada is a dualist state.[197] Thus, the only way treaties become binding in Canada as a matter of domestic law is when they are transformed through domestic legislation. Under the monist approach, international law is directly incorporated into domestic law and is immediately effective without additional legislative or executive action.[198] While Canada does not follow the monist approach for treaties, it does for CIL. In Canada, CIL is directly incorporated into the common law of Canada and is effective immediately unless displaced by legislation.[199] This is known as the doctrine of incorporation (or adoption).[200] Canada does not follow a purely monist approach with respect to CIL; however, it follows a modified monist approach to incorporating CIL because the CIL is only directly applicable in Canada (flowing into common law) as long as it is not displaced by legislation. If there is any legislation that contradicts the CIL, then this legislation displaces the CIL common law.

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[195] Lebel J., *supra* note 16 at 4.
[196] *Ibid.*
[197] *Ibid.*
[198] *Ibid.*
[199] Gib van Ert, *Using International Law in Canadian Courts*, 2nd ed, (Toronto: Irwin Law 2008) at 184.
[200] *Ibid.*

There is considerable authority for the proposition that Canada follows a modified monist approach to CIL.[201] Beginning in 1953, in *Re Foreign Legations,* the court considered the power of Ontario municipal corporations to levy taxes for municipal purposes against buildings housing legations owned by several foreign states in the national capital region.[202] Chief Justice Duff held that the legations could not be subjected to municipal taxation because "some general principles touching the position of the property of a foreign state and the minister of a foreign state have been accepted and adopted by the law of England (which, except as modified by statute, is the law of Ontario) as part of the law of nations."[203] This finding represents an application of the doctrine of incorporation, meaning Canada follows a particular CIL but can also modify "general principles" of law domestically.[204]

More recently, modified monism for CIL was affirmed as part of Canadian law in *R v. Hape,* a landmark decision concerning the doctrine of incorporation. The case dealt with an investment banker convicted of money laundering.[205] It involved RCMP officers working with authorities from Turks and Caicos to investigate the accused's office on the Islands.[206] The accused submitted that the evidence obtained was in violation of his section 8 *Charter* rights.[207] While holding that the *Charter* cannot be enforced in another state's territory without the other state's consent, the SCC stated:

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[201] Armand de Mestral & Evan Fox-Decent, "Rethinking the Relationship Between International and Domestic Law" (2008) 53 Mcgill L J 573.
[202] *Re Foreign Legations*, [1943] SCR 208, at 214 [hereinafter *Foreign Legations*].
[203] *Ibid*.
[204] van Ert, supra note 199 at 195-96. Since *Re Foreign Legations*, there have been a number of different cases dealing with a modified approach to CIL. These cases include: *Reference re Exemption of United States Forces from Proceedings in Canadian Criminal Courts*, [1943] SCR 483; *Saint John v Fraser-Brace Overseas Corp*., [1958] SCR 263; *PSAC v United States Defence Department*, [1992] 2 SCR 50.
[205] *R v Hape*, [2007] 2 SCR 294 at para 1 [hereinafter *Hape*].
[206] *Ibid.*
[207] *Ibid.*

> …following the common law tradition, it appears that the doctrine of adoption operates in Canada such that prohibitive rules of customary international law should be incorporated into domestic law in the absence of conflicting legislation. The automatic incorporation of such rules is justified on the basis that international custom, as the law of nations, is also the law of Canada unless, in a valid exercise of its sovereignty, Canada declares that its law is to the contrary. Absent an express derogation, the courts may look to prohibitive rules of customary international law to aid the interpretation of Canadian law and the development of the common law.[208]

As clearly indicated, CIL is automatically adopted into Canadian law and can only be displaced by domestic legislation.[209]

The 2020 *Nevsun* case involved three individuals who were conscripted to work in an Eritrean mine in which the majority was owned by the Canadian company Nevsun.[210] The conditions in the mine were horrific, and claims were brought forth involving forced labour, slavery, cruel and inhumane treatment, and crimes against humanity, which were said to be peremptory norms (*jus cogens*) from which no derogation is permitted.[211] This case addressed only the threshold question of justiciability, not the precise content of the law to be applied. The question was whether it was plain and obvious that the claims would fail.[212] Justice Abella's majority affirmed that CIL is a part of Canadian common law, and a breach by a Canadian company of CIL can theoretically be remedied.[213] The SCC ruled that the "automatic incorporation" of norms of CIL "is justified on the basis that international custom, as the law of nations, is

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[208] *Ibid*, at para 39.
[209] Leblel J. Makes a distinction between a custom that is permissive and one that is prohibitive. In Lebel J.'s view, only prohibitive customs are automatically incorporated into Canadian domestic law. This distinction has not been well-received and was officially rejected in the *Nevsun* decision: Lebel J., *supra* note 16 at 17.
[210] *Nevsun Resources Ltd. v Araya*, 2020 SCC 5 at para 7 [hereinafter *Nevsun*].
[211] *Ibid.*
[212] *Ibid*, at para 64.
[213] *Ibid*, at para 127.

also the law of Canada."[214] Therefore, if the twin requirements of CIL (state practice and *opinio juris*) are met, CIL becomes fully integrated into Canadian domestic law.[215] As further indicated in the decision, consistent with the modified monist approach, legislatures are of course free to change or override CIL; but like all common law, no legislative action is required to give CIL effect in Canada.[216] As the case law demonstrates, since the duty of prevention has been recognized as CIL, the duty automatically applies to Canadian domestic law. This is consistent with the doctrine of incorporation. Applying modified monism to the focus of this paper, unless displaced by domestic legislation, Canada has an obligation to abide by the CIL norm to prevent transboundary harm.

b. The Greenhouse Gas Pollution Pricing Act

The *Greenhouse Gas Pollution Pricing Act (GGPPA*) was enacted and came into force in 2018.[217] The key purpose of the *GGPPA* is to create incentives for the behavioural changes necessary to reduce GHG emissions.[218] To achieve this purpose, carbon pricing policies are applied broadly throughout the provinces.[219] The *Act* has two key parts. Part 1 of the legislation is the fuel charge, which is the price per tonne of the various GHGs emitted, while Part 2 is the Output Based Pricing Mechanisms, or a cap-and-trade.[220] For Part 1, the price per tonne was set at $20 for 2019, and will rise to $50

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[214] *Ibid*, at para 93.
[215] *Ibid.*
[216] *Ibid*, at para 94.
[217] *Greenhouse Gas Pollution Pricing Act*, SC 2018 C 12 at Preamble [hereinafter *GGPPA Act*]; *GGPPA Reference*, *supra* note 162 at para 22.
[218] *Ibid.*
[219] *Ibid*; *GGPPA Reference*, *supra* note 164 at para 29.
[220] *Ibid*, at s. 3 and s. 169.

per tonne by 2022, with a loose goal of achieving carbon neutrality by 2050.[221] In December 2020, Prime Minister Trudeau announced a price increase to $170 per tonne before 2030.[222] The charges are paid by producers, distributors, and importers of fuel; it is expected the costs will be passed on to consumers.[223] For example, the result of the charge increased the price of gasoline by 4.43 cents per litre in 2019, and will rise annually until it reaches 11.05 cents per liter in 2022 above what it would have been without the charge.[224] This charge is what is widely regarded as the "carbon tax". Yet, this charge is revenue neutral and 90 percent of the proceeds are to be returned to the individuals within a jurisdiction in the form of a Climate Action Incentive Payment, while the remaining 10 percent is given for reduction investments to small businesses and institutions through the Climate Action Incentive Fund.[225]

Part 2 of the *GGPPA* allows large emitters to opt out of the fuel charge and enter the Output-Based Pricing System (OBPS), which is a cap-and-trade program.[226] Facilities covered by the program provide compensation for the portion of emitted GHGs that exceed their applicable emissions limit based on sector specific percentages.[227] Industries that emit below their cap receive a credit, while facilities that exceed their limit must pay a charge to the federal government.[228] Most industries have the standard set at 80 percent

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[221] *Ibid*, at Schedule 4.
[222] John Paul Tasker, "Ottawa to hike federal carbon tax to $170 a tonne by 2030" (11 December 2020) *CBC*, online: < https://www.cbc.ca/news/politics/carbon-tax-hike-new-climate-plan-1.5837709>.
[223] *GGPPA Act*, *supra* note 217; *GGPPA Reference*, *supra* note 164 at para 26.
[224] *In the Matter of the Greenhouse Gas Pollution Pricing Act, Bill C-74 Part 5 and in the Matter of a Reference by the Lieutenant Governor in Council to the Court of Appeal for Saskatchewan Under The Constitution Questions Act, 2012*, ss 2012, C c-29.01 (Factum of the Attorney General of Ontario) at para 25 [hereinafter Ontario Factum].
[225] *GGPPA Reference*, *supra* note 164 at para 31.
[226] *GGPPA Act*, *supra* note 217 at s. 169; *GGPPA Reference*, at para 16.
[227] *Ibid*, *GPPA Reference*.
[228] *Ibid*, at para 42.

of the sector's average GHG emission intensity, meaning that an industry must emit more than 20 percent less than the average to receive a credit.[229] The *GGPPA* allows for a market to buy and sell these credits.[230] The combination of a carbon levy and the cap-and-trade system is what is referred to as "carbon pricing".

By implementing a carbon price, Canada is meeting its due diligence obligations under the duty of prevention. As a result, Canada is meeting its duties under CIL. As previously discussed, states have an obligation to make their "best efforts" to prevent foreseeable significant damage, or at least minimize the risk of harm. Experts have frequently argued that carbon pricing is the most effective tool for reducing emissions; hence, a carbon price must be a state's "best efforts". For example, the Federal-Provincial-Territorial Working Group on Carbon Pricing Mechanisms, which was created by the federal government to determine the effectiveness of carbon pricing, claimed "[m]any experts regard carbon pricing as a necessary policy tool for efficiently reducing GHG emissions."[231] Furthermore, the High Level Commission on Carbon, comprised of economists and climate change scientists from around the world, reported that a well designed carbon price is an indispensable part of a strategy for reducing emissions in an efficient way.[232] Joseph Stiglitz, an American Nobel winning economist, advocates for a detailed carbon price to apply to all sectors of the economy, albeit not with a "single price" applied uniformly.[233] This is consistent with how the Canadian carbon price was

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[229] *Ibid*, at para 338.
[230] *Ibid*, at para 16.
[231] Ontario Factum, *supra* note 224 at para 24.
[232] "Report of the High-Level Commission on Carbon Prices," (2017) *World Bank Group*, online: <https://static1.squarespace.com/static/54ff9c5ce4b0a53decccfb4c/t/59b7f2409f8dce5316811916/1505227332748/C arbonPricing_FullReport.pdf> at 8 [hereinafter High Level Commission].
[233] Joseph E. Stiglitz, "Addressing Climate Change through Price and Non-Price Interventions" (2019) National Bureau of Economic Research Working Paper No. 25939.

designed, as certain exemptions are carved out for large emitters that may opt out of the carbon price and enter the Output-Based Pricing System (OBPS), a cap-and-trade program.[234] Therefore, by implementing a carbon-pricing, Canada is doing its "best effort" due diligence to reduce its emissions. It also should be noted that while a carbon price is one way for a particular country to meet its CIL, there are a number of other ways (such as command and control regulation), for a country to abide by the duty of prevention

Around the globe, a large number of industrialized wealthy countries have begun implementing carbon pricing strategies. For example, in Europe, eighteen countries have implemented a carbon tax.[235] The price ranges from less than €1 per metric ton of carbon emissions in Poland and Ukraine to more than €100 in Sweden.[236] In July 2021, the EU proposed a new legislation that would impose a carbon price on imported goods.[237] While this policy has yet to be implemented, it will be the first of its kind, and will aim to protect domestic industries that are abiding by EU's emission reduction policies.[238] As estimated by the World Bank, approximately 40 countries around the world have implemented a carbon pricing mechanism.[239] With a few exceptions, these carbon prices have all been implemented in wealthy industrialized countries. This indicates that wealthy industrialized states, which have contributed more to the problem, have a

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[234] *GGPPA Reference*, *supra* note 164 at para 34.
[235] Elke Asen, "Carbon Taxes in Europe" (June 3, 2021) *Tax Foundation*, online at: <https://taxfoundation.org/carbon-taxes-in-europe-2021/>.
[236] *Ibid.*
[237] Brad Plumer, "Europe is proposing a Border Carbon Tax. What Is It and How Will It Work?" (July 14, 2021) *The New York Times*, online at: <https://www.nytimes.com/2021/07/14/climate/carbon-border-tax.html>.
[238] *Ibid.*
[239] "Pricing Carbon", *World Bank*, online at: <https://www.worldbank.org/en/programs/pricing-carbon>.

heightened ability to implement more stringent policies to prevent transboundary harm. This heightened ability may come in the form of a carbon price.

Considering only a large portion of countries have not implemented a carbon price, how can there be an *opinio juris* compelling a state to prevent the transboundary harm of GHG emissions through the implementation of a carbon pricing mechanism? The answer to this is that it is unnecessary for all states to take similar measures against foreseen consequences because due diligence obligations may be imposed according to "their capabilities".[240] This due diligence approach is consistent with the "common but differentiated capabilities" (CBDR) principle, which recognizes that developed countries acknowledge the responsibility they bear and may have an additional responsibility based on their enhanced capabilities.[241] Notably, CBDR has not reached customary status, but it still provides some "steering" effect on state behaviour.[242] CBDR considers states' socio-economic differences when goals and benchmarks are applied to global development agendas.[243] Therefore, when analyzing the level of due diligence involved, it is important to consider a state's capacity. Canada has not only contributed more to the problem of GHG emissions, but has more resources than developing states to reduce its emissions.[244] As a wealthy industrialized economy, Canada has a heightened ability to prevent transboundary pollution, while also allowing for its sovereign right to develop. It should be stressed that, for Canada, a greater emphasis is placed on its duty of prevention

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[240] Takano, *supra* note 140 at 39.
[241] *Rio Declaration*, *supra* note 77 at principle 7.
[242] Ulrich Beyerlin, "Different Types of Norms in International Environmental Law Policies, Principles, and Rules" in Daniel Bodansky, Jutta Brunée & Ellen Hey, eds, *The Oxford Handbook of International Environmental Law* (Oxford Handbooks in Aw, 2008) at 442.
[243] *Ibid.*
[244] Christopher D. Stone, "Common but Differentiated Responsibilities in International Law" (2004) 98 Am J Int'l L 276 at 292.

compared to a developing state. Under this approach, Canada has an increased obligation to prevent transboundary harm, and it is in this light that the *GGPPA* and subsequent litigation, carbon taxes and carbon pricing should be considered.

c. The Greenhouse Gas Pricing Pollution Act Reference

In March 2020, the SCC delivered a landmark decision known as the *Re Greenhouse Gas Pricing Pollution.* The case primarily dealt with the constitutionality of the *GGPPA*. Wagner C.J, writing for the majority, recognized that the presence of the *Paris Agreement* was a factor influencing the decision to uphold the *GGPPA.*[245] He did not reference the CIL duty to prevent transboundary harm, although - as established earlier – this also should be a factor under consideration. Even though Canada's obligations under the *Paris Agreement* were not decisive factors, Wagner C.J. recognized that "[a]ddressing climate change requires collective national and international action. This is because the harmful effects of GHGs are by their very nature not confined within borders."[246] Again, while the SCC did not consider CIL, this statement reflects the need for states to prevent transboundary harm to other states. In upholding the *GGPPA*, Wagner C.J recognized that collective action is needed by Canada and acknowledged that harm that crosses borders ought to be prevented, including through a carbon tax.

Taking the inverse approach, if the *GGPPA* was held to be unconstitutional, and the nation-wide carbon pricing scheme was abolished, would Canada be abiding by the CIL duty of prevention? Since Canada is a federalist state, the provinces have a great deal of discretion in establishing their own climate policies. Before the *GGPPA* became law,

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[245] *GGPPA Reference*, *supra* note 164 at para 149.
[246] *Ibid*, at para 12.

only British Columbia, Alberta, and Ontario had carbon pricing mechanisms.[247] In addition, Canada was seriously behind in meeting its *Paris Agreement* GHG emission reduction targets: Canada's overall emissions had only decreased by 3.8 percent from 2005 to 2016, far short of the *Paris Agreement* goals of a 30 percent reduction by 2030.[248] This trajectory virtually guaranteed that Canada would not meet its international *Paris Agreement* commitment. Moreover, this trajectory also demonstrated that Canada was very likely also failing to fulfill the CIL duty to prevent transboundary harm.

Besides the *GGPPA*, there are no other federal legislation tackling climate change, with one exception: the *Canadian Net-Zero Emissions Accountability Act*. This legislation enshrines Canada's commitment to set national targets for the reduction of GHG emissions with the objective of attaining net-zero emissions by 2050.[249] The *Net-Zero Act* requires an emissions reduction plan, a progress report, and an assessment report for Canada's targets.[250] The *Net-Zero Act* also sets the 2030 GHG emission reduction target as more ambitious than what Canada has committed to under the *Paris Agreement*. This target is set at between 40 and 45 percent below 2005 levels.[251] The *Net-Zero Act* demonstrates that Canada is committed to reducing its emissions; but, unlike the *GGPPA*, there is nothing setting out how the commitment will be fulfilled. It is more of a commitment to commit, meaning Canada is creating a law to reduce its emissions, but how this will be done is dealt with by other legislation. This other legislation is the *GGPPA*. Without the *GGPPA*, Canada cannot abide by the CIL duty to prevent

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[247] *Ibid*, at para 23
[248] *Ibid*, at para 24.
[249] *Canadian Net-Zero Emissions Accountability Act*, SC 2021 C 12 at Preamble [hereinafter *Net-Zero Act*].
[250] *Ibid*, at s. 10, 14, at 15.
[251] *Ibid*, at s. 7-0

transboundary harm with the *Net-Zero Act* alone. More is needed for Canada to make its due diligent and "best effort" to prevent the transboundary flow of GHG emissions.

7. Conclusion

The duty to prevent transboundary harm is a CIL. It was established in *Trail Smelter* and has been consistently repeated in treaties subsequent to the 1972 *Stockholm Declaration*. In addition, the ICJ has explicitly stated it is CIL, thereby recognizing the combination of state practice and *opinio juris*. As a result, all states – including Canada - are bound by the obligation to make a due diligence effort to reduce transboundary harms. This due diligence effort is based on a state's capabilities. In other words, this due diligence effort must be reasonable.

The fact that states continue to pollute does not negate the duty's CIL status: the discussion in the ICJ case law has illustrated that states accept and feel bound by the duty to prevent transboundary harm, even if they choose to violate that duty. GHG emissions represent a form of transboundary harm that is covered under the CIL duty to prevent transboundary harm.

The consequences of climate change are potentially catastrophic, and are no longer remote.[252] In 2021, heat waves ravaged Western North America and caused massive forest fires, large parts of Germany and Belgium suffered from unexpected flooding, and stronger than normal monsoons devasted parts of India, triggering

[252] Richard P. Allan and others, *Climate Change 2021 The Physical Science Basis: Summary for Policymakers*, (Working Group I), accessed online: < https://www.ipcc.ch/report/ar6/wg1/downloads/report/IPCC_AR6_WGI_SPM.pdf> [hereainafter Allan et al.].

landslides.[253] Events such as these will only increase in the future.[254] Since GHG emissions flow transboundary, states are obligated to reduce their emissions to prevent such harms from happening.

Canada is bound by the customary duty to prevent transboundary harm. Since Canada follows a modified monist approach, Canada is bound by any CIL that is not displaced by legislation. To date, legislation has not displaced the prevention duty. In fact, the *GGPPA* reiterates this duty. The nation-wide carbon pricing scheme established by the *GGPPA* is consistent with the implementation of the CIL duty to prevent transboundary harm. The adoption of the *GGPPA* demonstrates that Canada is taking legislative action to implement its CIL duty, using its due diligent "best efforts" to reduce emissions through a carbon price. The *GGPPA* does not require an absolute cessation of emissions. Some industries – particularly those involved in creating GHG emissions - will feel its impact more than others, but this fact does not affect or negate Canada's overarching obligation to prevent transboundary harm.

Canada has made clear international commitments to reduce emissions under the *Paris Agreement*. Canada has an additional, simultaneous, duty under CIL to do so. While the *Paris Agreement* quantifies the actual reduction target Canada must meet under international law, the duty to prevent transboundary harm places a concomitant commitment on Canada to prevent the harm from occurring. The *GGPPA* helps to address both the treaty and CIL obligations. The projections are that the prices associated

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[253] Jason Samenow, "The Northern Hemisphere has a punishing heat wave infestation" (20 June 2021) *The Washington Post*, online at: < https://www.washingtonpost.com/weather/2021/07/20/heat-wave-northern-hemisphere/>; "Germany, Belgium floods: Toll exceeds 100, with hundreds missing" (15 July 2021) *AlJazeera*, online at: < https://www.aljazeera.com/news/2021/7/15/germany-floods-several-dead-dozens-missing-heavy-rains>; Aishwarya Kumar, "India: on the frontline of climate change" (25 July 2021) *Phys Org*, online at: < https://phys.org/news/2021-07-india-frontline-climate.html>.
[254] Allan et al, *upra* note 251.

with the per tonne of GHG emissions will lead to GHG emission reductions that exceed Canada's commitments and will, therefore, also assist Canada in meeting the due diligence standard of preventing transboundary harm due to GHG emissions.

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