

Climate change and the rights of vulnerable populations

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by the

Alberta Civil Liberties Research Centre



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Part I

INTRODUCTION

1.1 Introduction

This report considers the concept of vulnerability to climate change in its relationship to the rights of disadvantaged people.

The Intergovernmental Panel on Climate Change (IPCC) defines climate change as: “..change in the state of the climate that can be identified (e.g. using statistical tests) by changes in the mean and, or the variability of its properties, and that persists for an extended period, typically decades or longer”.¹

Art.1 of the United Nations Framework Convention on Climate Change (UNFCCC) points out that humans are instrumental to a changing climate by stating that: “A change of climate which is attributed directly or indirectly to human activity that alters the composition of the global atmosphere and which is in addition to natural climate variability observed over comparable periods.”²

Anthropogenic greenhouse gas (GHG) emissions are the primary cause of human-induced climate change.³ At the opening statement to the 42nd session of the Human Rights Council, the United Nations High Commissioner for Human Rights, Michelle Bachelet, stated: “Climate Change is a reality that now affects every region of the world. The human implications of currently projected levels of global heating are catastrophic. Storms are rising, and times could submerge entire island nations and

¹ United Nations Framework Convention on Climate Change, “Fact Sheet: climate change science: The status of climate change science today”, online:

<https://unfccc.int/files/press/backgrounders/application/pdf/press_factsh_science.pdf> at 1.

² United Nations Framework Convention on Climate Change, 09 May 1992, 1771 UNTS 107; 31 ILM 801 (1992) at 1-33 (entered into force 21 March 1994) at Art.1.

³ UNEP, “Environment and Vulnerability: Emerging Perspectives”, <<https://www.gdrc.org/uem/disasters/disenvi/environment-vulnerability.pdf>> ; Association of Concerned Scientists, “How Do we Know that Humans are the Primary Cause of Global Warming?” (August 1, 2017) <<https://www.ucsusa.org/resources/are-humans-major-cause-global-warming>>.

coastal cities. Fires rage through our forests, and the ice is melting. We are burning up our future literally.”⁴

Social inequality resulting from socioeconomic status, race, health status, age, ability, income, ethnicity/race and gender dictate a person’s vulnerability to climate change, says the IPCC.⁵

1.2 Statement of the Problem

Scientists predicted that climate change would harm vulnerable people’s health, including that of the poor, the elderly and children. Climate change’s contribution to the spread of diseases led to about 150,000 deaths globally, and 88% of the deceased were children. Climate change will increase incidents of Lyme disease in North America.⁶ Global warming promotes the spread of Lyme disease among people, including children in Canada and the United States of America; other ways climate change affects health is the spread of airborne and vector-borne diseases.⁷

The United Nations International Children’s Emergency Fund (UNICEF) stated that children would suffer disproportionately from climate change risks.⁸ Children will have to contend with life-threatening dangers such as food insecurity, increasing air pollution, malnutrition, diarrhoeal diseases, increased vector-borne disorders, to

⁴ United Nations Human Rights Office of the High Commissioner, (2019) “Opening Statement by UN High Commissioner for Human Rights Michelle Bachelet”, online: <https://www.ohchr.org/en/statements/2019/02/opening-statement-un-high-commissioner-human-rights-michelle-bachelet-40th>.

⁵ Simon K. Allen et al., “IPCC, 2012: Summary for Policymakers” In *Managing the Risks of Extreme Events and Disasters to Advance Climate Change Adaptation*, Field, C.B. et al. (eds.) A Special Report of Working Groups I and II of the Intergovernmental Panel on Climate Change (Cambridge: Cambridge University Press, 2012) at 7.

⁶ Benjamin H. Kaffenberger, et al., “The effect of climate change on skin disease in North America” (2017) 76:1 JAM Acad Dermatol 140 online: <https://pubmed.ncbi.nlm.nih.gov/27742170/#:~:text=Endemic%20North%20American%20illnesses%20such,are%20longer%20and%20more%20intense> > j.jaad.2016.08.014.

⁷ Aaron S. Bernstein & Samuel S. Myers. “Climate change and children’s health” (2011) 23:2 *Current Opinion in Pediatrics* > doi: 10.1097/MOP.0b013e3283444c89.

⁸ UNICEF, “Unless we act now. The impact of climate change on children “, online: *UNICEF* > <https://sustainabledevelopment.un.org/content/documents/2161unicef.pdf> > [UNICEF].

mention a few.⁹ In countries like Peru, there is a severe increase in diarrheal hospitalization rates among children from rising temperatures.¹⁰

In a survey conducted by health care professionals in five English-speaking countries, including Canada and the U.S.A, researchers opined that climate change is already harming public health or has the potential to do so in the future.¹¹ The highest mortality rate from extreme weather events associated with climate change is among older people—a US scientific study revealed.¹² Some of the health effects of climate change on more senior people include respiratory and vector-borne diseases, injury and drowning.¹³

In the United States, extreme heat caused by climate change affects the health of older people adversely.¹⁴ There is still a massive gap in climate change impacts on human health information, even though some experts argue that climate change is the biggest threat to global health in the 21st century. Researchers recommend that there should be the incorporation of climate change preparedness into public health programs.¹⁵

The UNDP reported that climate change is a security threat to the poor and hinders human development by aiding loss of agricultural development, water security

⁹ UNICEF.

¹⁰ Perry E. Sheffield & Philip J. Landrigan, 'Global climate change and children's health: threats and strategies for prevention.' (2011) 119:3 Environmental Health Perspectives 292 at 292, online: < <https://ehp-niehs.nih.gov.ezproxy.lib.ucalgary.ca/doi/pdf/10.1289/ehp.1002233>>.

¹¹ Francesca S Cardwell & Susan J Elliot, "Making the links: do we connect climate change with health? A qualitative case study from Canada" (2013) 13:1 BMC Public Health, online: <<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3608965/>>[Cardwell].

¹² Cardwell.

¹³ Erwin William A. Levya "Health Impact of Climate Change in Older People: An Integrative Review and Implications for Nursing," (2017) 49:6 Journal of Nursing Scholarship 670 at 670 & 674.

¹⁴ Gamble J.L et al., "Climate change and older Americans: state of the science" (2011) 121:1 Environ Health Perspect 15 online: <<https://www.ncbi.nlm.nih.gov/pubmed/23033457>>; <https://sigmapubs.onlinelibrary.wiley.com/doi/pdf/10.1111/jnu.12346>

¹⁵ Philip L. Landrigan et al., "New Academic Partnerships in Global Health: Innovations at Mount Sinai School of Medicine" (2011) 78:3 Mt Sinai J Med 470 online: <<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3190974/>>.

and natural disasters.¹⁶ It leads to forced environmental migration and continues to impact the lifestyles of climate migrants negatively.¹⁷

Most global research on climate change focuses on transitioning to a low-carbon economy, with less attention to the transition process's actual effect on disadvantaged people, who are more vulnerable because they cannot tackle threats to the environment that harm them.¹⁸

Researchers claim that climate change is a justice issue because it affects those who contribute the least to its existence.¹⁹ There should be adequate consideration of the people who suffer from climate injustice in climate change agreements, and one way to achieve this include public participation in climate policy initiatives.²⁰

1.3 The International Climate Change Framework

The international climate change framework focuses on climate change mitigation, adaptation, the creation of financial sources to support mitigation and adaptation, and the use of international oversight to ensure compliance with climate change policies.²¹

Due to the global nature of climate change, international cooperation amongst states is necessary for mitigation and adaptation to climate change, and over time, the growth of international collaboration varies institutionally.²² Thus, there is no centralized mode of addressing climate change internationally. The United Nations

¹⁶ Kevin Watkins, *Human Development Report, Fighting Climate Change: Human Solidarity in a Divided World* (New York: UNDP, 2008) at 9.

¹⁷ Susan Martin, "Climate Change Migration, and Governance" (2010) 16:2 *Global Governance* 397 at 397 [Martin].

¹⁸ Beverly Wright & Earthea Nance, "Toward Equity: Prioritizing Vulnerable Communities in Climate Change" (2012) 4:1 *Duke Forum for Law and Social Change* 1 at 2 & 21 [Wright & Nance].

¹⁹ Edward Cameron, Tara Shine & Wendi Bevins, "Climate Justice: Equity and Justice Informing a New Climate Agreement" (2013) *World Resources Institute Working Paper* [Cameron].

²⁰ Cameron.

²¹ Daniel Bodansky, Jutta Brunnèe, & Lavanya Rajamani, *International Climate Change Law*, 1st ed. (Oxford: Oxford University Press, 2017) at 11 [Bodansky et. al].

²² Robert Stavins et al. "International Cooperation: Agreements and Instruments" in: O. Edenhofer et al eds., *Climate Change 2014: Mitigation of Climate Change. Contribution of Working Group III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change* (Cambridge: Cambridge University Press, 2014) at 1005 [Stavins].

Framework codifies international climate protection.²³ It is one of the universal primary mechanisms to address climate change.²⁴ Most nations in the world have accepted the United Nations policies on Climate Change; thus, it is the global mechanism for addressing climate change.²⁵ This report adopts the UNFCCC framework as the standard for climate change mitigation and adaptation because it was the first to create a platform for nations to address the threats posed by climate change internationally collectively. This report embraces the UN's legal instruments on global climate change and human rights to keep the scope of its work within a manageable frame.

1.3.1 Climate Change and Sustainable Development

Sustainable Development, often used interchangeably with sustainability, is an essential principle in climate change conversations.²⁶ From its inception, sustainable development relates to attempts to infuse social and economic issues into environmental programs.²⁷ There are four intertwined principles of sustainable development: society, environment, culture and economy.²⁸ Sustainability involves planning for a future that includes equal consideration of the community, economy, and environment to improve life quality.²⁹ The Bruntland Commission defines sustainable development as: “A development that meets the needs of the present without compromising the ability of future generations to meet their own needs.”³⁰

²³ Geraldine Terry, “No climate justice without gender justice: an overview of the issues“ (2009) 17:1 Gender & Development 14 [Terry].

²⁴ Terry.

²⁵ Lee Hannah, *Climate Change Biology* (Massachusetts: Academic Press, 2011) at 339; Stavins.

²⁶ Gary W. Yohe et al., Perspectives on Climate Change and Sustainability in M.L. Parry et al. eds., *Climate Change 2007: Impacts, Adaptation and Vulnerability. Contribution of Working Group II to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change*.

²⁷ John B. Robinson & Deborah Herbert, “Integrating climate change and sustainable Development” (2001) 1:2 Int. J. Global Environmental Issues 130 at 137.

²⁸ UNESCO, “Sustainable Development”, online: UNESCO <<https://en.unesco.org/themes/education-sustainable-development/whatis-esd/sd>> [UNESCO].

²⁹ UNESCO.

³⁰ World Commission on Environment and Development, *Our Common Future*, 3rd Edition, (Oxford: Oxford University Press, 1990) [Our Common Future].

The United Nations 1992 Rio Declaration is the first agreement that enshrines the principle that countries must have effective regulations to protect the environment.³¹ Principle 3 of the Declaration provides: “the right to equitable development must be fulfilled to equitably meet developmental and equitable needs of future generations.”³²

Also, principle 4 provides that: “in order to achieve sustainable development, environmental protection shall constitute an integral part of the development process and cannot be considered in isolation from it.”³³

Most times, economic progress in countries has a disadvantageous effect on the environment and human rights.³⁴ Adger, Chapin and Ellemor suggest that the making of poor climate-policy decisions that affect human rights results from the use of defective decision-making methods that relegate courses of action for people’s wellbeing.³⁵

The cost-benefit analysis used by regulators monetizes things such as human lives, which should rightly surpass monetary value.³⁶ Also, there is no adequate representation of underfunded community-based groups’ interests due to the competing interests of dominant-self interest groups who think that such groups have no part to play in decision making.³⁷

Another obstacle to sustainability is the government’s constant focus on climate change mitigation and creating carbon-friendly energy while neglecting communities

³¹Rio Declaration on Environment and Development, 14 June 1992, UN Doc. A/CONF.151/26 (vol.1) 31 ILM 874 (entered into force on 29 December 1993) [Rio Declaration] at principle 11.

³² Rio Declaration at principle 3.

³³ Rio Declaration at principle 4.

³⁴ John C. Dernbach, “Achieving Sustainable Development: The Centrality and Multiple facets of Integrated Decision Making” (2003) 10:1 *Indiana Journal of Global Legal Studies* 247 at 248, online: <<https://www.repository.law.indiana.edu/ijgls/vol10/iss1/10/>> [Dernbach].

³⁵ W. Neil Adger, Jon Barnett, F. S. Chapin III & Heidi Ellemor, “This Must Be the Place: Under Representation of Identity and Meaning in Climate Change Decision-Making” (2011) 11:2 *Global Environmental Politics* 1 at 2.

³⁶ Eileen Gauna, “Environmental Law, Civil Rights and Sustainability: Three Frameworks for Environmental Justice” (2012) 19 *Journal Environmental Sustainability Law* 34 at 50 [Gauna].

³⁷ Gauna.

at the receiving end of environmental pollution or prone to displacement from new technology such as waste energy plants.³⁸

Integrated decision-making is the focal point of sustainable development that ensures all necessary ingredients for the growth of its principles, such as the polluter pay principle, intergenerational equity, public participation and the precautionary principle.³⁹

Dernbach and Mintz state that Environmental law sustainable development involves the following measures *inter alia*:

- the use of law for integrated decision-making;
- fostering sustainability with already existing laws;
- the obligation of state governments to ensure sustainability;
- the growing importance of climate change; and
- the importance of NGOs and judicial review in the sustainability process.⁴⁰

Robinson and Murray advise that addressing climate change from a sustainable development point of view will produce more rewarding results in attaining climate goals because it would provide more chances for reducing greenhouse gas (GHG) emissions in a context that would benefit society, businesses and the government.⁴¹

1.3.2 Research Question

This report considers how the law can effectively address the disproportionate impact of climate change on vulnerable populations.

1.3.3 Research Methodology

In gathering information on the research question above, this report used the following methods.

³⁸ Gauna at 6.

³⁹ Gauna at 251-258.

⁴⁰ John C. Dernbach & Joel A. Mintz, “Environmental Laws & Sustainability: An Introduction” (2011) 3 :11 Sustainability 531.

⁴¹ John B. Robinson et al., “Climate Change and Sustainable Development: Realizing the Opportunity” (2006) 35:1 AMBIO 1 at 5.

1.3.3.1 Doctrinal and Non-Doctrinal Research

Hutchinson and Duncan explain that originally, doctrinal research refers to legal principles such as cases, statutes and rules.⁴² It is library-based and aims to find the correct answer to legal problems.⁴³ Non-doctrinal research or sociological research, on the other hand, relies on processes from different disciplines to create verified responses to its research problem.⁴⁴ However, modern doctrinal research encompasses other fundamental research methodologies, law reform, and legal theory.⁴⁵ Nowadays, legal academia may rely on doctrinal methodology and non-doctrinal methodology in their study by infusing the latter in the former.⁴⁶ The preceding is what this research does.

In a bid to answer the question, “how can law effectively address the disproportionate impact of climate change on vulnerable people?” this report refers to scientific research on reported incidents, social experiments on the solutions that affected people seek articles, presentations and other scholarly publications on the subject matter.

1.4 Scope of the Report

This study considers global climate change and human rights and the climate change and human rights regime in Canada. On the international side of things, it focuses on the United Nations legal instruments to achieve a manageable framework.

1.5 Report Structure

The report is in four parts. Part I provides a global overview of the problem of climate change and its impact on disadvantaged people. Part II discusses the theoretical framework for the study. Part III considers the effects of climate change on vulnerable people in Canada and examines the state of climate justice in the country.

⁴² Terry Hutchinson & Nigel Duncan, “Defining and Describing What We Do: Doctrinal Legal Research” (2012) 17:1 Deakin Law Review 83 at 84 [Hutchinson & Duncan].

⁴³ Salim Mohammed Ali, Zuryati Mohamed Yusoff & Zainal Amin Ayub, “Legal Research of Doctrinal and Non-Doctrinal” (2017) 4:1 International Journal of Trend in Research and Development 493 at 493 [Ali].

⁴⁴ Ali.

⁴⁵ Terry Hutchinson, “The Doctrinal Method: Incorporating Interdisciplinary Methods in Reforming the Law” (2015) 3 Erasmus Law Review 130 at 131 [Hutchinson].

⁴⁶ Ali at 138.

Part IV talks about the deficiencies in the international and Canadian climate change and human rights regime and proffers solutions to the identified problems.

1.6 Conclusion

This part introduces the reason for this report, identifies the research question and the research methodology. It also discusses the scope and structure of this study.

Part II

Vulnerability, climate change and vulnerable populations

2.1 Introduction

This chapter discusses the interaction between climate change and vulnerable people.

2.2 Vulnerability and vulnerable populations in international climate change law

Vulnerability, simply put, is being at the mercy of another.⁴⁷ The International Federation of Red Cross (IFRC) says that it refers to a group's or individual's reduced capacity to fight, endure or recuperate from a human-made or natural hazard.⁴⁸ Vulnerability is a characteristic of individuals and groups of people who inhabit a given natural, social and economic space. The said individuals occupy different classes into more or less vulnerable individuals and groups according to their different social positions.⁴⁹ Although the concept of vulnerability is sometimes closely linked to poverty, it also arises when people are in isolation and defenceless against stress and shock.⁵⁰ There are several forms of vulnerability: Physical, economic, social and environmental. Climate change influences all four types of vulnerability.

Physical vulnerability to climate change is the tangible manifestation of geophysical factors that are not dependent on their environments' will.⁵¹ Examples of geophysical factors are droughts, floods, storms and rising sea levels.⁵² Regarding

⁴⁷ Estelle Ferrarese, "Vulnerability and Critical Theory" (2016) 1.2 Critical Theory 1. <https://brill.com/downloadpdf/journals/rpct/1/2/article-p1_1.xml> .

⁴⁸ The International Federation of Red Cross and Red Crescent Societies "What is vulnerability", online: *IFRC* <https://www.ifrc.org/en/what-we-do/disaster-management/about-disasters/what-is-a-disaster/what-is-vulnerability/> [IFRC].

⁴⁹ Terry Cannon, "Vulnerability Analysis and the Explanation of 'Natural Disasters'" in Ann Varley ed. *Disasters, Development and Environment* (England: John Wiley & Sons, 1994).

⁵⁰ IFRC.

⁵¹ Mathilde Closet et al., A Physical Vulnerability to Climate Change Index: Which are the most vulnerable developing countries?, FERDI Working Paper No. 213 (December 2017) <https://hal.archives-ouvertes.fr/hal-01719925v3/document>> at 1.

⁵² USGS, "How can climate change affect natural disasters" online: *USGS* <https://www.usgs.gov/faqs/how-can-climate-change-affect-natural-disasters-1?qt-news_science_products=0#qt-news_science_products>.

(iii) the entity's ability to face damaging exposure to climate change hazards to recover whenever such danger occurs.⁶⁰ Climate inequality exists within and across countries.⁶¹ Social vulnerability points out the types of people that predominantly unequal because of climate change.⁶² Islam and Winkel argue that factors such as gender, poverty, occupation, race and ethnicity, increase climate inequality susceptibility.⁶³

2.3 Climate Change as a Human Rights Issue

Traditionally, climate change talk also centred on the environmental, scientific and economic aspects, but the conversation now includes human rights.⁶⁴

In 2009, the *United Nations High Commissioner on Human Rights relationship between human rights and climate change report* concluded that:

- (i) Climate change threatens the enjoyment of human rights;
- (ii) Climate change does not automatically violate human rights;
- (iii) Climate change duties are imposed on states by human rights laws;
- (iv) The duties owed by countries regarding climate change include international cooperation.⁶⁵

Human rights violations are a strong driving force of climate change vulnerability because they affect exposure to risk among those with inadequate living standards and people displaced from fear of poor inhuman treatment or exposure to climatic extremes, such as floods, droughts and landslides.⁶⁶

⁶⁰ Jon Barnett, "Human Rights and vulnerability to climate change" in Stephen Humphreys (ed.), *Human Rights and Climate Change*, (Cambridge: Cambridge University Press, 2010) at 258 [Barnett].

⁶¹ S. Nazru Islam & John Winkel, Climate Change and Social Inequality, DESA Working Paper No. 152 ST/ESA/2017/DWP/152 (October 2017) <https://www.un.org/esa/desa/papers/2017/wp152_2017.pdf> [Islam & Winkel].

⁶² Lynn, MacKendrick & Donoghue at 8.

⁶³ Islam & Winkel at 16-18.

⁶⁴ Georgios Zampas & Oliver Elgie, "Climate Change as a Human Rights Issue?" (26 September 2019), online: *Herbert Smith Freehills* <https://www.herbertsmithfreehills.com/latest-thinking/climate-change-as-a-human-rights-issue>>

⁶⁵ John H. Knox, "Linking human rights and climate change in the United Nations" (2009) 33 *Harv. Envtl. L. Rev.* 477 (2009).

⁶⁶ Barnett at 259.

The body points out that human rights affected by climate change include the right to equality and non-discrimination of marginalized people, and that preventive action by the international community against climate change and human rights so far is insufficient.⁶⁷

2.4 The Interaction between Climate Change, Vulnerable People and Human Rights

The interaction between climate change and human rights arises from a principle called climate justice. Climate justice is an offshoot of environmental justice. Environmental Justice begins as an interdisciplinary body of literature that provides researchers with the opportunity to document the disproportionate impact of environmental pollution on socially disadvantaged people in the US.⁶⁸

Kuehn argues that environmental justice is capable of several meanings: to communities that face ecological hazards and allege improper consultation in the implementation of environmental policies, it means the indifference of their governments to their plight, while to corporations alleged to commit environmental wrongdoings, environmental justice denotes either denial, indifference or only partial acceptance of the allegations.⁶⁹

The issues that environmental justice seeks to address are in four broad justice components; procedural, corrective, distributive and social justice.⁷⁰ Procedural justice is the right to equal opportunities in the decision-making process on the distribution of goods and opportunities in the society; corrective justice concerns a fair process in ensuring accountability for environmental damage and punishing lawbreakers; for example, indigenous people in the U.S. call for the punishment of some oil companies

⁶⁷ Office of the High Commissioner on Human Rights, “Understanding Human Rights and Climate Change”, online: *OHCHR* <https://www.ohchr.org/Documents/Issues/ClimateChange/COP21.pdf> at 8 [OHCHR, Human Rights].

⁶⁸ Paul Mohai, David Pellow & J. Timmons Roberts, “Environmental Justice” (2009) 34 *Annu. Rev. Environ. Resour.* 405 at 407.

⁶⁹ Robert R. Kuehn, “A Taxonomy of Environmental Justice” (2000) 30:9 *Envtl. L. Rep.* 1068 at 1068 [Kuehn].

⁷⁰ Kuehn.

for environmental degradation.⁷¹ Distributive justice entails the right to equal treatment in the distribution of opportunities, goods and services; social justice asks that everyone make efforts to create a community where there is a complete provision for everyone's needs in society.⁷²

After the disastrous hurricane Katrina in 2005, environmental discussions led to the creation of climate justice as an arm of environmental justice—broad enough for separate consideration in the U.S.⁷³ The significant distinction between environmental justice and climate justice is that the latter concedes to climate change on the environment and quality of human existence, emphasizing equality, human rights and justice.⁷⁴

Harlan et al. are of the view that climate change is a justice issue because social inequalities are one of its consequences; it marginalizes communities that rely less on fossil fuels, culturally, politically and socially.⁷⁵ Two other reasons that they provide are the unequal effect of climate change on the rich and the poor and the exclusion of impoverished and vulnerable people from mitigation and adaptation policies.⁷⁶

Climate justice gives us insight into the ethical implications of climate change, efforts to address it and the consequences of both the problem and solution on justice.⁷⁷ Climate Justice requires that climate action aligns with existing human rights

⁷¹ Kuehn at 10688 & 10693.

⁷² Kuehn at 10683 & 10698.

⁷³ David Schlosberg & Lisette B. Collins, "From environmental to climate justice: climate change and the discourse of environmental justice" (2014) 5:3 WIREs Clim Change 359 at 359 , online:<<https://onlinelibrary.wiley.com/doi/epdf/10.1002/wcc.275>> [Schlosberg & Collins].

⁷⁴ Manuj Bhardwaj, "The role and relationship of climate justice and common but differentiated responsibilities & respective capabilities (CBDR-RC) principle in the international climate change legal framework" online: <https://www.connect4climate.org/sites/default/files/files/publications/Climate%20Justice_Manuj%20Bhardwaj%20India_0.pdf>

⁷⁵ Sharon L. Harlan et al., "Climate Justice and Inequality" in Riley E. Dunlap and Robert J. Brulle, *Climate Change and Society: Sociological Perspectives* at 2 [Harlan et. al].

⁷⁶ Harlan et. al.

⁷⁷ International Bar Association, "International Bar Association Climate Change Justice and Human Rights Task Force Report : Achieving Justice and Human Rights in an Era of Climate Disruption" (July 2014) at 46, online (pdf): International Bar Association, online:

<<https://www.ibanet.org/Document/Default.aspx?DocumentUid=0F8CEE12-EE56-4452-BF43-CFCAB196CC04>>

standards, obligations, agreements and policies.⁷⁸ Scholars use climate justice to stress the urgency for international law to provide solutions for climate change's disproportionate effects.⁷⁹ Its evolution aims to address the lapses of the environmental justice movement in addressing climate change.⁸⁰

There are several climate justice schools of thought. The first, the international level, preaches global justice and the need for international law to impose binding obligations to reduce climate change-causing GHG while recognizing the different levels of priorities and contributions of different countries to climate change.⁸¹ This attitude of acknowledging the need for climate action, bearing in mind the common but differentiated responsibilities (CBDR-RC) of nations, is present in the Kyoto Protocol and Paris Agreement. However, unlike the Kyoto Protocol, which focuses on developed countries, the Paris Agreement adopts a soft-law approach in its requirement that all member countries provide voluntary National Determined Contributions (NDC) as proof of commitment to climate change mitigation and adaptation. The Paris Agreement aims to combat climate change and hold ratifying members to accountability standards in climate change action.⁸² The Agreement urges member states to protect indigenous peoples, migrants, children, persons with disabilities and other vulnerable people while addressing climate change.⁸³

The second school of Climate Justice is the community level, which deals with the exposure of disadvantaged socioeconomic groups to climate change vulnerability.⁸⁴

⁷⁸ Office of the High Commissioner for Human Rights,

<https://www.ohchr.org/Documents/Issues/ClimateChange/COP21.pdf> at 2.

⁷⁹ Damilola Olawuyi, "Advancing Climate Justice in International Law: An Evaluation of the United Nations Human Rights-Based Approach", (2015) 11:1 Florida A&M University Law Review at 103 at 103, online <http://commons.law.famu.edu/famulawreview/vol11/iss1/3>. [Olawuyi].

⁸⁰ Schlosberg & Collins, at 362-363 <<https://onlinelibrary.wiley.com/doi/epdf/10.1002/wcc.275>> .

⁸¹ Olawuyi, at 105.

⁸² United Nations Climate Change, "What is the Paris Agreement", online: <https://unfccc.int/process-and-meetings/the-paris-agreement/what-is-the-paris-agreement>

⁸³ Paris Agreement, 12 December 2015, 55 ILM 740 (2016) at preamble (entered into force 4 November, 2016) [Paris Agreement]. In November 2021, the UN held a Climate Change Conference in Glasgow Scotland online: <https://unfccc.int/conference/glasgow-climate-change-conference-october-november-2021> This resulted in the Glasgow Climate Pact, signed by the signatories to the Paris Agreement.

⁸⁴ Trine Stausgaard Munk, "What is Climate Justice", online: *RAMBOLL* <<https://ramboll.com/ingenuity/climate-justice>> [o].

Unlike the international level, the community-level focuses less on climate change and busies itself with the acquisition of political power and representation for socio-economically disadvantaged people in the climate change adaptation process.⁸⁵

Gach argues that in all, there are nine shared principles of climate justice:

- an impression of justice in consonance with the two principles of justice propounded by Rawl, or the three proportions of Scholberg’s distributional, recognition and procedural fairness;
- the need to emphasize the different vulnerability and adaptation capacities of countries to climate change;
- apportioning the reduction of GHG emissions to states following their levels of historical emissions (Climate debt);
- providing compensation for loss and damage incurred from the impact of climate change;
- reconciling human rights and climate change issues;
- the effects of climate change on the rights and cultural heritage of Indigenous peoples;
- the role of climate change and its responses in increasing social inequalities, such as gender, race and social status issues;
- the criticisms of “false solutions” proffered by market and technology approach to climate change; and
- connecting climate change problems with global practices such as trade liberalization, global capitalism and international debt.⁸⁶

In March 2019, Mary Robinson, at the UN General Assembly’s Meeting on the Protection of the Global Climate for Present and the Future Generations, stated that Climate Justice “insists on a shift from a discourse on greenhouse gases and melting

⁸⁵ Munk.

⁸⁶ Evan Gach, “Normative Shifts in the Global conception of Climate Change: The Growth of Climate Justice”, 8:24 (2019) Social Sciences 1 at 2-4.

icecaps into a civil rights movement with the people and communities most vulnerable to climate impacts at its heart.”⁸⁷

2.5 A global pandemic such as COVID-19 has the same effect as climate Injustice on vulnerable people

Scientists and activists liken the COVID-19 pandemic to the climate crisis that the world faces. Nina Juong argues that the people more vulnerable to the impact of climate change are the same people who are at the harshest receiving end of the COVID-19 pandemic.⁸⁸ These people include those with pre-existing health conditions, black and brown communities, older people and the homeless community. Some researchers argue that although there is no direct evidence linking climate change to the COVID-19 pandemic, it is essential to note that the leading causes of climate change help the spread of a disease such as COVID-19; for example, factors such as air pollution, which increases vulnerability to climate change, also does same to COVID-19.⁸⁹ People infected with COVID-19 are more likely to die of the disease if they reside in areas with a high air pollution rate.⁹⁰ Figueres highlights five lessons that COVID-19 teaches us on climate change.⁹¹ The first is that global challenges have no national borders; pandemics and climate change affect people in different geographical locations worldwide and are a global problem. Second, the virus exposes already vulnerable people, such as the poor, who grapple with poverty to further adverse economic constraints. Third, COVID-19 and climate change prevention are safer than waiting to deal with their disastrous consequences. Fourth, only systemic changes in government and company policies and behavioural changes can bring about the much-

⁸⁷ United Nations, Climate Justice” online: *United Nations*, online:

<https://www.un.org/sustainabledevelopment/blog/2019/05/climate-justice/>

⁸⁸ Nina Juong, “Those Most Vulnerable to Coronavirus Are Also Most Vulnerable to Climate Crisis” (April 21, 2020) online: Peril & Promise < <https://www.pbs.org/wnet/peril-and-promise/2020/04/coronavirus-climate-an-earth-day-perspective/>>.

⁸⁹ Harvard T.H. Chan School of Public Health, “Coronavirus and Climate Change”, online: <<https://www.hsph.harvard.edu/c-change/subtopics/coronavirus-and-climate-change/>>

⁹⁰ Bloomberg Green, “A Pandemic that Cleared Skies and Halted Cities Isn’t Slowing Global Warming”, online: *Blomberg Green*< <https://www.blomberg.com/graphics/2020-how-coronavirus-impacts-climate-change/>>.

⁹¹ Christiana Figueres “5 Lessons From Coronavirus That Will Help Us Tackle Climate Change” online: *TIME* <https://time.com/5808809/coronavirus-climate-action/>.

needed actions for both problems. Fifth, response measures for climate change and COVID-19 are based on scientific reports.

The Paris Agreement is the first UN multilateral agreement on climate change that explicitly uses the word “climate justice.”⁹² Although the Agreement does not define climate justice, it demonstrates climate justice expectations in specific other provisions, such as recognizing the importance of climate change response on human rights.⁹³ Other provisions include:

- The identification of loss and damage as crucial in addressing climate change and establishing the Local Communities and Indigenous Peoples Platform;⁹⁴
- the recognition of climate change vulnerability by acknowledging disadvantaged people and nations would suffer the most from climate change impacts. The said impacts are less capacity and resources for adaptation and recovery from social, economic, and environmental damage.⁹⁵

The Inter-American Commission on Human Rights (IACHR) and Mary Robinson opine that the inclusion of climate justice in only the preamble to the Paris Agreement and not its operative provisions only offers a weak guarantee of compliance.⁹⁶ Savaresi and Hartman propose that if agreements include references to human rights in their operative provisions, it will create a connection between states that have failed to comply with human rights obligations and climate change.⁹⁷

⁹²Paris Agreement, Preamble at Paragraph 13.

⁹³ Paris Agreement, Preamble at paragraph 11.

⁹⁴ Paris Agreement, at Art. 8 (1); Art. 7(5).

⁹⁵ Paris Agreement, See Art. 4 Par. 15, Art.7, Art.9 & Art. 9 Par. 1 Paris Agreement & Gach, at 7-8.

⁹⁶ Organization of American States, Inter-American Commission on Human Rights, Press Release, 140, “IACHR Expresses Concern Regarding Effects of Climate Change on Human Rights” (2 December 2015), online: Megan Rowling, “Keep Human Rights in UN Deal to Secure Climate Justice: Robinson”, Reuters (8 December 2015), online:< www.reuters.com/article/us-climatechange-summit-rights-idUSKBN0TR29J20151208>

⁹⁷ Max H Hulme, “Preambles in Treaty Interpretation” (2016) 164 U Pa L Rev 1282 at 1297 at 3.

2.6 Climate Justice and Human Rights

On climate change and human rights, the independent experts of the UN Human Rights Council urge party states to incorporate the following practices in human rights policies to meet the Paris Agreement's 1.5°C mitigation target:⁹⁸

- encourage businesses to consider climate change policies, including environmental impact assessments and human rights due diligence in their operations;
- as a matter of urgency resulting from the devastating consequences of climate change, increase the climate change mitigation goal;
- ensure that indigenous perspectives play a role in the execution of climate change schemes and policies;
- adopt a comprehensive set of guidelines that encompasses obligations in the Paris Agreement concerning gender-inclusive and rights-based climate action; and
- ensure that access to information, complete and efficient participation and transparency exists in the formal negotiations on climate change action.

There are several provisions of UN legal policies that provide for human rights. The *International Covenant on Economic, Social and Cultural Rights (ICESCR)* provides that state parties to the covenant recognize that everyone should enjoy physical and mental health equally.⁹⁹ Improving all aspects of environmental hygiene is one step that state parties must take to achieve the preceding.¹⁰⁰ The ICPC suggests that one of the ways to handle climate change is to identify vulnerable communities. Although people in vulnerable communities are more susceptible to climate change, some populations in developed countries, such as the poor and the elderly, are also at risk.

⁹⁸ United Nations Human Rights Office of the High Commissioner “ Joint Statement of the United Nations Special Procedures Mandate Holders on the occasion of the 24th Conference of the Parties to the UNFCCC”, online: *OHCHR* <

<https://www.ohchr.org/EN/NewsEvents/Pages/DisplayNews.aspx?NewsID=23982&LangID=E>>.

⁹⁹ the International Covenant on Economic, Social and Cultural Rights (December 16, 1966) Date of entry into force January 3, 1976, online: *United Nations Human Rights*, online:

<<https://www.ohchr.org/en/professionalinterest/pages/cescr.aspx>> [ICESCR].

¹⁰⁰ICESCR at Art.12 (1) & 2 (b).

At a meeting of an expert committee of the OHCHR, the committee stated that the UNFCCC should consider, respect, promote and integrate human rights in future UNFCCC processes.¹⁰¹ It further provided the following recommendations on how to achieve human rights and climate justice to member states:

- member states should uphold both international commitments on climate change and human rights obligations;
- member states should act to ensure that human rights stay on the UNFCCC agenda by creating a working group on human rights and climate change, human rights and climate change programs, design meeting points for human, gender, and indigenous rights and ensure that human rights experts engage in the UNFCCC dialogues; and
- recognize indigenous people’s rights and enforce follow-up climate actions from the Paris Agreement that respect and promote their rights, dignity and sustainable development.¹⁰²

The OHCHR does not exclude civil society and national human rights institutions from the call to action on climate change. It enjoins national human rights institutions to provide technical support and advice on climate change and human rights to their respective governments, create a platform for climate-related complaints, and promote awareness on the impact of human actions on climate change.¹⁰³

It expects the civil society to lobby, monitor, support governments, businesses and other key players in implementing climate commitments; institute court actions and complaints to human rights bodies to allow the legal system to establish the

¹⁰¹ OHCHR “Summary of Recommended Actions on Human Rights and Climate Change from OHCHR Expert Meeting of 6-7 October” online: *OHCHR* <https://www.ohchr.org/sites/default/files/Documents/Issues/ClimateChange/SlowOnset/SlowOnsetExpertMeetingRecommendations.pdf> at 2 [OHCHR].

¹⁰² OHCHR at 2 & 3.

¹⁰³ OHCHR at 4.

obligations of states and business organizations on climate change amongst other recommendations.¹⁰⁴

2.6.1 Climate Justice and Climate Change Litigation

There is a growing wave of climate change litigation by citizens and non-governmental organizations against state governments worldwide.¹⁰⁵ For example, in the *People vs. Arctic Oil*¹⁰⁶ climate lawsuit, the Norwegian government was sued by Greenpeace, Indigenous, and youth groups for granting a licence to an oil and gas company to explore the North Sea because the grant violated the Paris Agreement.¹⁰⁷

Climate change litigation is considered a tool that will impact corporate conduct because it could spur private companies and business investors to pay more attention to the dangers of climate change and government policies; it would also influence government policies.¹⁰⁸ A CNN report showed that from 1990 to May 2019, there was climate change legal action against governments and businesses in twenty-eight countries worldwide.¹⁰⁹ Science and human rights are now a part of climate change litigation because claimants allege that climate change is a human rights issue.¹¹⁰ Plaintiffs in these cases use several arguments claims in their actions, and they include:

¹⁰⁴ OHCHR at 5.

¹⁰⁵ Mairi Dupar, “Climate change litigation – a rising tide” (3 May 2012) online: *Climate Change and Development Network* < https://cdkn.org/2012/05/postcard-from-london-rising-tide-of-climate-change-litigation/?loclang=en_gb > .

¹⁰⁶ *People vs. Arctic Oil*, EHCR-LE4.1cR OBS CHB HEP?BTH/kh European Court of Human Rights (22/12/21).

¹⁰⁷ Arthur Nelson, “Norway faces climate lawsuit over Arctic oil exploration plans” (October 18, 2016) online: *The Guardian* < <https://www.theguardian.com/environment/2016/oct/18/norway-faces-climate-lawsuit-over-oil-exploration-plans> > .

¹⁰⁸ Joana Setzer & Rebecca Byrnes, “Global trends in climate change litigation: 2019 snapshot”, (2019) at 1, online: *Centre for Climate Change Economics and Policy, Columbia Law School, Grantham Research Institute on Climate Change and the Environment* < http://www.lse.ac.uk/granthaminstitute/wp-content/uploads/2019/07/GRI_Global-trends-in-climate-change-litigation-2019-snapshot-2.pdf > [Setzer & Brynes, 2019].

¹⁰⁹ Jack Guy, “Climate Change lawsuits spreading around the world says report” (4 July 2019), online: *CNN* < <https://www.cnn.com/2019/07/04/world/climate-change-lawsuits-scli-intl/index.html> > .

¹¹⁰ See Nicholas Kusnetz, “A Surge of Climate Lawsuits Targets Human Rights, Damage from Fossil Fuels,” online: *insideclimatenews* <https://insideclimatenews.org/news/04012019/climate-change-lawsuits-2018-year-review-exxon-fossil-fuel-companies-human-rights-children-government> ; See also: This Space Ship Earth “A Growing List of Climate Lawsuits Around the World,” online: *This Space Ship Earth* <https://thisspaceshipearth.org/2019/01/a-growing-list-of-climate-lawsuits-from-around-the-world/> .

(i) The Public Trust Doctrine

As one of the earliest environmental law principles, the doctrine of public trust is a social contract that fosters a fiduciary relationship between the public and state governments as trustees to preserve natural resources for present beneficiaries of the trust relationship and their future generations.¹¹¹ It dwells on the public's right to use shared resources and the government's duty to protect these resources as a basis for international human rights litigation on climate change.¹¹² Sax describes the public trust doctrine as "a tool for resource management problems" that will keep in check the excesses of selfish influential minorities with an unfair disadvantage over decisions of legislative and administrative bodies, causing them to ignore the interest of the public regarding public resources.¹¹³ Regarding climate change, Atmospheric Trust Litigation (ATL) applied the public trust doctrine in arguing that the government holds the atmosphere in trust for the public.¹¹⁴ Its goal is to seek judicial remedy in compelling the legislature and the government's executive branches to create laws and implement plans to protect the environment and human health.¹¹⁵

A case where the plaintiffs rely on public trust in atmospheric litigation is *Juliana et al. v the United States of America, et al.*,¹¹⁶ where the plaintiffs—a group of youths—urged the court to use the public trust doctrine to compel the government to

¹¹¹ Mary Christina Wood & Dan Galpern, "Atmospheric Recovery Litigation: Making The Fossil Fuel Industry Pay To Restore a Viable Climate System" (2015) 45 Environmental Law 259 at 272, online <<http://www.law.uh.edu/faculty/thester/courses/Natural%20Resource%20Damage%20Law%20and%20Liability%202016/Atmospheric%20Recovery%20Litigation%20by%20Wood.pdf>>.

¹¹² Brian J. Preston, "Using Environmental Rights to Address Climate Change" (2018) 2 Chinese Journal of Environmental Law 131 at 135 & 136.

¹¹³ Joseph L. Sax, "The Public Trust Doctrine in Natural Resource Law: Effective Judicial Intervention" (1970) 68:3 MICH.L. REV 471 at 474 & 560 <<https://repository.law.umich.edu/mlr/vol68/iss3/3> .

¹¹⁴ Ipshita Mukherjee, "Atmospheric Trust Litigation – Paving the Way for a Fossil-Fuel Free World" (5 July 2017), online: <<https://law.stanford.edu/2017/07/05/atmospheric-trust-litigation-paving-the-way-for-a-fossil-fuel-free-world/>> [Mukherjee].

¹¹⁵ Mukherjee; Mary Christina Wood, "Atmospheric Trust Litigation: Defining Sovereign Obligations in Climate Recovery" online: *The Fletcher Forum of World Affairs* <<http://www.fletcherforum.org/home/2016/8/22/atmospheric-trust-litigation-defining-sovereign-obligations-in-climate-recovery>>.

¹¹⁶ *Juliana et al. v the United States of America, et al.*, 339 F. Supp. 3d 1062.

preserve natural resources for public use. However, a Federal Appeals Court dismissed the case because the relief sought was beyond its constitutional power.¹¹⁷

In a similar matter, *Kain et al. v Massachusetts Department of Environmental Protection (DEP)*,¹¹⁸ the Massachusetts Supreme court found in favour of four youth plaintiffs when it ordered the state department of environmental protection to impose mandatory limits on GHG from various sources and that the said limits must decline annually.¹¹⁹ Relying on the public trust doctrine, a group of four teenage plaintiffs and a not-for-profit organization filed an appeal before the US Supreme Court alleging that the Federal Government owed citizens the duty to tackle climate change effectively. However, the court dismissed the ground's appeal because the Clean Air Act adequately replaced the common law public trust doctrine.¹²⁰ In *Mbawazi & Others v The Attorney General and National Environmental Authority*,¹²¹ the plaintiffs in this case, all children, on their behalf and that of generations unborn, sued the Ugandan government for failing to fulfil its public trustee duty to maintain the country's natural resources and ensure their sustainable use.¹²² They also alleged a failure to take adequate mitigation and adaptation measures to climate change. Incidents that they list as the adverse effects of a changing climate include:

- the untimely death of two children in their sleep after the collapse of their home during a rain storm;
- the demise of two children by drowning from a flood in their home, and

¹¹⁷ John Schwartz, Court Quashes Youth Climate Change Case Against Government, (January 17, 2020), online: *New York Times* <<https://www.nytimes.com/2020/01/17/climate/juliana-climate-case.html>>.

¹¹⁸ *Kain et al. v Massachusetts Department of Environmental Protection (DEP)*, 474 Mass. 278.

¹¹⁹ Our Children's Trust, "Historic Victory: 4 Teenagers win in Massachusetts Climate Change Law Suit" (May 17, 2016), online: *Ecowatch* <<https://www.ecowatch.com/environmental-justice-for-all-act-2645329693.html>>.

¹²⁰ Online: <http://blogs2.law.columbia.edu/climate-change-litigation/wp-content/uploads/sites/16/case-documents/2014/20141003_docket-14-405_petition-for-writ-of-certiorari-1.pdf>.

¹²¹ After a preliminary hearing, the High Court ordered the parties to undertake a 90-day mediation process but has taken no further action as of October 2017.

¹²² Climate Case Chart, *Mbawazi & Others v. The Attorney General and National Environmental Authority*, online: <<http://climatecasechart.com/non-us-case/mbabazi-et-al-v-attorney-general-et-al/>> [Mbawazi] ; See also: <http://blogs2.law.columbia.edu/climate-change-litigation/wp-content/uploads/sites/16/non-us-case-documents/2015/20150828_Civil-Suit-No.-283-of-2012_complaint-1.pdf>.

- the forced displacement of thousands of citizens after storms in Uganda.¹²³

There are several challenges that the public trust doctrine suffers. First, many environmental problem victims are not aware that it is a democratic right, which leads to its violation by state governments and companies alike.¹²⁴ Second, is the difficulty of convincing the court that the atmosphere is worthy of environmental trust protection.¹²⁵ Third, public trust arguments extend beyond law courts' scope by involving the court in public policy affairs.¹²⁶ Fourth, is the issue of legal standing, which consists of evidence that the plaintiffs suffered injuries, showing a connection between the injury and the defendant's alleged actions and whether the court can grant the remedies they seek.¹²⁷ The fifth is the scientific difficulties in establishing a connection between extreme weather events and climate change.¹²⁸

(ii) Fundamental Human Rights

Another basis for climate change litigation is human rights, particularly the rights to equality and life.

There are two types of human rights-based climate change litigation—proactive litigation, which advocates for policy change and reactive litigation, used mainly by corporate actors to oppose climate change action.¹²⁹ Proactive climate litigation involves citizens who institute actions against state governments and corporations for

¹²³ Mbawazi.

¹²⁴ For Love of Water, "What is Public Trust", online: *FLOW* <<https://forloveofwater.org/public-trust-solutions/what-is-public-trust/>> .

¹²⁵ Chris Evans, "Atmospheric Trust Litigation" (13 June 2011), West Coast Environmental Law (blog) online: <<https://www.wcel.org/blog/atmospheric-trust-litigation/>> [Chris Evans].

¹²⁶ Chris Evans.

¹²⁷ Andrew Ballentine, "Full of Hot Air: Why the Atmospheric Trust Litigation Theory is an Unworkable Attempt to Expand the Public Trust Doctrine Beyond Its Common Law Foundations" (2014) 12 *Dartmouth L.J.* 98 at 129-130.

¹²⁸ Hunter Pearl, "Environmental Activism by Court Order: The Dangerous and Faulty Approach of Atmospheric Trust Litigation" online: *Institute of Energy Research* <<https://www.instituteofenergyresearch.org/regulation/environmental-activism-by-court-order-the-dangerous-and-faulty-approach-of-atmospheric-trust-litigation/amp/>>; see also: Setzer & Brynes, 2019, at 1.

¹²⁹ Annalisa Savaresi & Juan Auz, "Climate Change Litigation and Human Rights: Pushing the Boundaries" (2019) *Climate Law*, 2019 1 at 2-3 (SSRN) https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3374730 [Savaresi & Auz].

climate wrongs.¹³⁰ Averill argues that human rights in climate litigation are not substantive, but procedural rights—such as the right to access information are and urged governments to consider the impact of their actions on climate change.¹³¹ State governments or corporations may face human rights climate change litigation under domestic laws, or internationally, through a body such as the International Court of Justice (ICJ), European Convention on Human Rights (ECHR), Inter-American Commission on Human Rights (IACHR), Organisation for Economic Co-operation and Development.¹³² An example of a case where the plaintiffs adopt the international mechanism is *Xákmok Kásek v Paraguay*.¹³³ An example of a legal action where the plaintiffs utilize domestic laws for climate change litigation is *Urgenda Foundation v the Netherlands*, where the court ordered Dutch Government to reduce GHG by at least 25% by 2020 compared to the 1990 levels.¹³⁴

In *Gbemre v Shell*, the plaintiffs brought an action before a Federal High Court in Nigeria, based on constitutional infringement of the right to life and dignity of the person, illustrates the domestic approach.¹³⁵ Also, five tribes in the US instituted a complaint before the UN Special Rapporteur against the United States government, alleging a breach of fundamental human rights from forced displacement resulting from climate change. In their claim, they requested that the Special Rapporteurs make the following suggestions. *inter alia*, to the U.S. government:

- The creation of a federal relocation framework based on human rights protection to respond to climate change threats; and

¹³⁰ Savaresi & Auz at 2.

¹³¹ Marilyn Averill, "Linking Climate Litigation and Human Rights" (2009) 18:2 Review of European Community and International Law 139 at 142-143 [Averill].

¹³² Sara C. Aminzadeh, "A Moral Imperative: The Human Rights Implications of Climate Change" (2007) 30 Hastings Int'l & Comp. L. Rev. 231 at 234 7 260 [Aminzadeh].

¹³³ *Case of the Indigenous Community Xákmok Kásek v Paraguay* (2010), Inter-Am. Ct. H.R. (Ser C) No 214 [Xákmok Kásek v Paraguay].

¹³⁴ Parliament of Canada.

¹³⁵ *Gbemre v Shell Petroleum Development Company Nigeria Limited and Others*, (2005) AHRLR 151 (NGHC 2005) at para.14 [*Gbemre v. Shell*].

- providing adequate adaptation measures to protect the security of their lands, health, water, food, housing and culture.¹³⁶

The right to life and the right to preserve health are two significant rights that plaintiffs claim in environmental, including climate change, litigation.¹³⁷ The importance of the right to life centres on its birthing other rights.¹³⁸ It is a right that is subject to extensive interpretations and includes not only the right to be deprived of one's life but also the requirement that there:

- hindrance to the decent existence of a person;
- countries owe residents an obligation to provide minimum living standards that are equal to the dignity of the human person, and
- countries must take positive actions to safeguard the right to a decent life, especially for vulnerable people and persons at risk.¹³⁹

On the right to life, in *Family Farmers & Greenpeace v Germany*, some German families sued the German government for taking insufficient actions to reduce GHG emissions to meet its 2020 GHG emission target.¹⁴⁰ They claimed that the government's efforts were a constitutional violation of their right to life and health under Art. 2 (2), *inter alia*, other provisions of the German Constitution. The court held that the German government's climate policy is judicially reviewable and must not be so inadequate to fail to protect its citizens' fundamental human rights, such as the right to life and property. The court dismissed the families' action because the 40% reduction of GHGs by 2020, they clamoured for, was legally unenforceable.¹⁴¹ Also, in

¹³⁶ Rights of Indigenous People in Addressing Climate-Forced Displacement (15 January, 2020) online: <http://blogs2.law.columbia.edu/climate-change-litigation/wp-content/uploads/sites/16/non-us-case-documents/2020/20200116_NA_complaint-1.pdf>.

¹³⁷ Veronica de la Rosa Jaimes, "Climate Change and Human Rights Litigation in Europe and the Americas" (2015) 5:1 Seattle Journal of Environmental Law 165 at 170-177 [Jaimes].

¹³⁸ *Yakye Axa Community v Paraguay*, Petition 12.313, Inter-Am. C.H.R., Report No.2/02, OEA/Ser.L/V/II.117,doc. [*Yakye Axa Community v Paraguay*].

¹³⁹ *Yakye Axa Community v Paraguay*; Averill, at 172.

¹⁴⁰ *Sabin Centre, Family Farmers and Greenpeace Germany v Germany*, online: Climate Case Chart <http://climatecasechart.com/non-us-case/family-farmers-and-greenpeace-germany-v-german-government/> [Greenpeace].

¹⁴¹ Greenpeace.

In *Xákmok Kásek v Paraguay*, the plaintiffs argued interference with their rights to life, and the court concluded that Paraguay breached the duty to take appropriate measures to protect the plaintiff from unsafe conditions.¹⁴²

Regarding equality rights, in *Maria Khan et al. v Federation of Pakistan et al.*, a group of women sued the Federation of Pakistan for human rights infringement, including the right to a clean and healthy environment and a climate capable of sustaining human life.¹⁴³ Another vital part of their argument is that the government's failure to treat climate change as an emergency violated the rights to equal protection and discrimination against women under the law because they are disproportionately affected by climate change.¹⁴⁴

Still on equality rights, four persons and the Association of Senior Women for Climate Protection, Switzerland, with about 1,200 members consisting of women aged 65 years and older, filed a climate change lawsuit against the government of Switzerland and some administrative bodies.¹⁴⁵ The suit, which was before the Federal High Court, claimed that inadequate climate policies contribute to increasing heatwaves. The court found that because everyone feels the impact of climate change equally, the senior women did not have the right to have their case heard.

Some challenges to human rights in climate change lawsuits are the aspirational nature of human rights law, which international human rights declarations apply to state parties and not private persons and corporations, and the difficulty in proving causation.¹⁴⁶

¹⁴² *Xákmok Kásek v Paraguay* at paras. 234 & 337.

¹⁴³ Climate Case Chart, *Maria Khan et al. v Federation of Pakistan et al.* online: *Climate Change Chart* <<http://climatecasechart.com/non-us-case/maria-khan-et-al-v-federation-of-pakistan-et-al/>>

¹⁴⁴ *Maria Khan v Pakistan*.

¹⁴⁵ See: Greenpeace International "Swiss seniors appeal climate case in the Federal Supreme Court," January 21, 2019, online: *Greenpeace* <<https://www.greenpeace.org/international/press-release/20343/swiss-seniors-appeal-climate-case-in-federal-supreme-court/>> [Green Peace]; Cordelia Christiane Bähr et al., *Wimaseniorinnen: lessons from the swiss Senior women's case for future climate change litigation* (201) 9:2 *Journal of Rights and the Environment* 194 <<https://www.mdpi.com/1660-4601/16/9/1583>>.

¹⁴⁶ Green Peace at 141.

(iii) Tort Law

Generally, the goal of tort law is to address the harms caused by humans.¹⁴⁷ Two questions arise in tort actions; the first is whether the defendant owes a duty of care to the plaintiff, while the second is the composition of the duty of care: there is a connection between both questions and the foreseeable risk of harm the plaintiff suffers.¹⁴⁸

There are international and domestic tort lawsuits against fossil fuel corporations and state institutions on climate change.¹⁴⁹ Weinbaum submits that global legal action grounded in tort law is likely to be unsuccessful because the international law framework is not comprehensive enough to accommodate the plaintiffs' unique claims.¹⁵⁰ Another reason for the failure of tort law actions is the difficulty in establishing the ingredients of tort liability in such cases; scholars argue that the US and Australia's failure to prove tort liability in the *Tuvalu* case before the ICJ is one of the reasons for plaintiffs' defeat.¹⁵¹

There are several climate change actions founded in nuisance against major multinational carbon-emitting corporations. The purpose of tort-based climate lawsuits is to hold the fossil fuel industry for climate change, and they include cases in the United States, France, Argentina, Netherlands, Germany, Philippines, United Kingdom, and Nigeria.¹⁵²

In *Board of County Commissioners of Boulder County et al. v Suncor Energy (U.S.A)*, the plaintiffs sought compensation for hardship associated with climate change

¹⁴⁷ Eduardo M. Penalver, Acts of God or Toxic Torts? Applying Tort Principles to the Problem of Climate Change (1998) 38 Nat. Resources 564 at 588.

¹⁴⁸ David Hunter & James Salzman, "Negligence in the Air" (2007) 155:6 1741 at 1746, online: <http://www.jstor.com/stable/40041378>.

¹⁴⁹ Roger Cox, "A climate change litigation precedent: Urgenda Foundation v The State of the Netherlands" (2016) 34:2 Journal of Energy and Natural Resources Law 143 at 144 & 145, online: <https://doi.org/10.1080/02646811.2016.1147887>.

¹⁵⁰ Aura Weinbaum, "Unjust Enrichment: An Alternative to Tort Law and Human Rights in the Climate Change Context?" (2011) 20:2 Pac. n L & Pol'y J 429 at 438, online: <https://digitalcommons.law.uw.edu/wilj/vol20/iss2/7> [Weinbaum].

¹⁵¹ Weinbaum at 440, 441 & 442.

¹⁵² Joana Setzer & Rebecca Brynes, at 18 & 19.

from the continuous burning of fossil fuels by the defendants.¹⁵³ In *San Francisco v Big Oil*, the plaintiff's case was dismissed by the Federal High Court because the courts were not the appropriate forum to address its allegations.¹⁵⁴

A relatable problem from negligent actions from CBDR in international law that could arise against states is the flip-side effect on taxpayers after a finding of state governments' negligence in interstate tort claims; state governments rely on funds from taxpayers who would be paying for the negligent actions of poor decisions of their governments in these cases.¹⁵⁵

2.7 Climate Justice Drivers and a Call to Action

Activists warn that state parties' commitment to the UNFCCC Paris Agreement is insufficient to address the problems caused by climate change, including addressing the disparity of its effects on vulnerable people.¹⁵⁶ Experts call on state governments at the national and state level, individuals, companies and non-governmental groups (NGOs) to take definite steps to address help for vulnerable people on mitigation and adaptation to climate change.¹⁵⁷

2.8 Conclusion

This part of the study considers the international framework on climate justice and human rights. It finds that actions by the international community are insufficient to address climate justice.

¹⁵³ John Schwartz, "Climate Change Lawsuits, Once Limited to the Coasts, Jump Inland" online: New York Times <<https://www.nytimes.com/2018/04/18/climate/exxon-climate-lawsuit-colorado.html>>.

¹⁵⁴ Jackie Flynn Mogensen, "San Francisco Vs. Big Oil: Climate Change Case Dismissed", online: Wired <<https://www.wired.com/story/san-francisco-vs-big-oil-climate-case-dismissed/>>.

¹⁵⁵ See Eric A. Posner & Cass R. Sunstein, "Climate Change Justice" (2008) 96:5 Geo LJ 1565 at 1601.

¹⁵⁶ Fiona Harvey, "Paris climate change deal too weak to help the poor, critics warn" (14 December 2015) online: *The Guardian* <<https://www.theguardian.com/environment/2015/dec/14/paris-climate-change-deal-cop21-oxfam-actionaid>> [Harvey].

¹⁵⁷ Harvey.

Part III

Climate Change and Vulnerable People in Canada

3.1 The Impact of Climate Change on Vulnerable People

The Government of Canada identified six areas in which climate change affects the socio-economy of the country.¹⁵⁸ These are: extra pressure on health care, interference with livelihoods, a distortion of social networks by extreme weather events, damage to housing infrastructure and shelter.¹⁵⁹ The environmental emergency caused by climate change poses more health challenges to Canadians.¹⁶⁰ It increases the vulnerability of young and old persons, low-income persons and persons living with existing medical conditions.¹⁶¹ Although biological and human activities in the climate have contributed to global warming in Canada, the human factor contribution is more predominant than natural occurrences.¹⁶² More than half of global warming is due to the influence of human activities.¹⁶³

The impact of climate change is already occurring in the Arctic regions in Canada. Drought challenges vulnerable populations by fostering food insecurity; 8.3% of Canadian households experienced food insecurity in 2011-2012.¹⁶⁴ British Columbia's Okanagan Valley is one of Canada's drier places, agricultural activities in the region further drain the land, and climate change would lead to hotter summers, thereby increasing vulnerability in the area.¹⁶⁵ All the prairie provinces are vulnerable

¹⁵⁸ Government of Canada, "Climate change and health: Populations at risk", online: *Government of Canada* <https://www.canada.ca/en/health-canada/services/climate-change-health/populations-risk.html> [Climate change and health].

¹⁵⁹ Climate change and health.

¹⁶⁰ Lisa Bendall, "How climate change is making you sick," online: *Reader's Digest Canada* <<https://www.readersdigest.ca/health/healthy-living/climate-change-making-you-sick/>> [Bendall].

¹⁶¹ Bendall.

¹⁶² Elizabeth Bush et al., *Canada's Changing Climate Change Report* (Government of Canada, 2019) at 4-5 [Bush et al.].

¹⁶³ Bendall.

¹⁶⁴ Anna Yusa et al., "Climate Change, Drought and Human Health in Canada," (2015) 12 *Int. J. Environ. Res. Public Health* 2015 at 8360 <<https://www.mdpi.com/1660-4601/12/7/8359/file:///C:/Users/Visitor/Downloads/ijerph-12-08359-v2.pdf>> at 8379 [Yusa et al.].

¹⁶⁵ CBC News, "Here are the places in Canada-yes, Canada-vulnerable to drought" online: *CBC News* <<https://www.cbc.ca/news/technology/water-at-risk-canada-drought-1.4570333>> [CBC News, Vulnerable].

to drought; projections show that people in Palliser's triangle, Saskatchewan, would be badly hit by climate change despite adaptive measures to the region's aridity with sustainability measures building farms apart. Further climate change would increase aridity on the land.¹⁶⁶ Drought is associated with wildfires; in 2011, severe droughts and fires in the Northern Prairies led to the loss of homes and businesses in Alberta, and future climate change will worsen such events.¹⁶⁷ Droughts increase the mosquito population, which are significant distributors of vector-borne diseases in Canada's eastern regions.¹⁶⁸ The Canadian Prairies link droughts to an increase in the risk of illnesses that mosquitos transmit.¹⁶⁹

3.1.1 Who are Vulnerable Populations in Canada?

A qualitative study reports that Canadians feel that climate change is a threat to public health.¹⁷⁰ The changing climate will affect the health needs of people at risk.¹⁷¹ There should be adjustments in the health system to take into account the following future climate change impacts on vulnerable populations such as:

- low-income Canadians;
- Indigenous people;
- older people;
- children; and
- those with heart, breathing and immunity problems to attain public health standards.¹⁷²

¹⁶⁶ CBC News, Vulnerable.

¹⁶⁷ Yusa et al. at 8373.

¹⁶⁸ Yusa et al. at 8365.

¹⁶⁹ Yusa et al. at 8370.

¹⁷⁰ Francesca S Cardwell & Susan J Elliot, "Making the links: do we connect climate change with health? A qualitative case study from Canada" (2013) 13:1 BMC Public Health online: <<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3608965/>>.

¹⁷¹ Lisa Bendall, "How Climate Change is making you sick" *Readers Digest* (21 October 2019) online: <https://www.readersdigest.ca/health/healthy-living/climate-change-making-you-sick/>.

¹⁷² Round Table on the Environment and the Economy, National. Degrees of Change: Climate Warming and the Stakes for Canada. 9781100170053. Ottawa: National Round Table on the Environment and the Economy, 2010.

3.1.1.1 Low-income Canadians

Human-induced climate change contributes to flooding; for example, researchers found that human-induced climate change contributed to the 2013 floods in Southern Alberta. Reviews from floods in Ontario identify climate change and future droughts as likely contributors to the spread of water and airborne diseases. Research showed that respiratory and water-borne ailments connected to drought affect some Canadians in the Prairie provinces.¹⁷³

Municipalities in provinces like Ontario rely on flood hazards rather than flood risks in addressing risk-sharing for flooding. The use of such plans places a more significant financial burden on low-income owners in residential properties that are prone to flooding.¹⁷⁴

3.1.1.2 Indigenous People

In less than 30 years, Indigenous people will suffer a tremendous loss in fisheries, which are currently the mainstay of their communities.¹⁷⁵ Fewer than half of Canada's barren-ground Caribou population remains. The Bathurst herd has reached a 95% decline by dropping from 472,000 in 1986 to 19,769.¹⁷⁶

Climate change is a threat to food production in First Nation groups. Studies show that it affects the traditional food sources of First Nations in Canada.¹⁷⁷ Research shows that climate change would adversely affect commercial production and revenue

¹⁷³ Yusa et al. at 8365.

¹⁷⁴ Daniel Henstra & Jason Thistlethwaite, "Climate Change, Floods, and Municipal Risk Sharing in Canada." file:///C:/Users/Visitor/AppData/Local/Temp/imfgpaper30_henstra_thistlethwaite_Feb_23_2017.pdf.

¹⁷⁵ Darryl Fears, "Scientists say climate change is threatening the life of Canada's native people", Washington Post <<https://go-gale-com.ezproxy.lib.ucalgary.ca/ps/i.do?&id=GALE|A439814165&v=2.1&u=ucalgary&it=r&p=AONE&sw=w>> [Fears].

¹⁷⁶ Winnipeg Free Press, "Editorial Exchange: Reindeer victims of climate change", December 19, 2016, Canadian Press Enter Inc. online <https://ucalgary-primo.hosted.exlibrisgroup.com/primo-explore/fulldisplay?docid=TN_proquest1853715681&context=PC&vid=UCALGARY&lang=en_US&search_scope=EVERYTHING&adaptor=primo_central_multiple_fe&tab=everything&query=any,contains,climate%20change%20%20endangered%20people%20%20canada>.

¹⁷⁷ Lauren V. Weatherdon et al., "Projected Scenarios for Coastal First Nations' Fisheries Catch Potential under Climate Change: Management Challenges and Opportunities" (2016) 11:1 PLoS ONE <<https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0145285>> at 2 [Weatherdon].

from the first nations' marine fisheries in the BC area.¹⁷⁸ A survey of 16 of the 78 First Nations along the North Pacific Coast says that in less than 30 years, wild salmon and herring that are First Nation Tribes eat, sell and use for ceremonies will swim north alongside other species due to climate change.¹⁷⁹ The waters in British Columbia will warm up, and the fish will move to colder areas. Marine species will leave fishing areas at a rate of 6 to 11 miles per year between now and the middle of the century.¹⁸⁰ Salmon along Canada's western coast will suffer a decline of 20%, and 28 million that the tribes derived from fishing between 2001 and 2010 would fall by up to 90%.¹⁸¹ Thinning ice leads to reduced mobility and resultant accidents; for example, two young men drowned after a thinning ice accident in 2003.¹⁸²

Exploratory research in Nunavut communities revealed that climate change contaminates the food water and changes weather conditions in the region; it also restricts mobility, hinders livelihood and melts permafrost since a cold environment in the area is essential, the rate of melting ice going on affects the wellbeing of inhabitants and exposes them to personal and collective vulnerability.¹⁸³ Also, 36.7% of Nunavut households experienced food insecurity in the years 2011-2012.¹⁸⁴

Scientific studies revealed that anthropogenic climate change damages the subsistence and cultural resources of Inuit people.¹⁸⁵ Climate change has led to the

¹⁷⁸ Weatherdon at 4.

¹⁷⁹ Fears.

¹⁸⁰ Fears.

¹⁸¹ Fears.

¹⁸² Odine Nelson, "Two men drown in Inukjuak," JANUARY 31, 2013 NUNATSIAQ NEWS <https://nunatsiaq.com/stories/article/two_men_drown_in_inukjuak/>

See also, Christopher Furgal and Jacinthe Seguin, Climate Change, Health, and Vulnerability in Canadian Northern Aboriginal Communities <<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1764172/pdf/ehp0114-001964.pdf>>

¹⁸³ G.K. Healey et al., 'Community Perspectives on the Impact of Climate Change on Health in Nunavut, Canada' (2011) 64:1 Artic 89 at 91-92

https://www.researchgate.net/publication/273924037_Community_Perspectives_on_the_Impact_of_Climate_Change_on_Health_in_Nunavut_Canada.

¹⁸⁴ Yusa et al. at 8379.

¹⁸⁵ Andrew Stobo Sniderman and Adam Shedletzky, "Aboriginal Peoples and Legal Challenges to Canadian Climate Change Policy" (2014) 4:2 Western Journal of Legal Studies 1 at 4 <<https://ojs.lib.uwo.ca/index.php/uwojls/article/view/5583/4668>> ; James D. Ford, "Dangerous climate change and the importance of adaptation for the Arctic's Inuit population" (2009) Environ. Res. Lett.4 at 2

skinny appearance of the polar bears and the loss of caribou-an outstanding ethnic food for the Inuit.¹⁸⁶ Climate change affects the Inuit's mental health by putting them in a situation known as "ecological grief."¹⁸⁷ Climate change affects the physical and emotional wellbeing of the Inuit and Rigolet communities.¹⁸⁸

For the Tahltan First Nation in British Columbia, climate change promotes the rapid spread of flames during wildfires, and an example is the wildfire incident in Telegraph Creek in August 2019.¹⁸⁹ The Old Crow people in the Vuntut Gwitchin Nation and the Gwich'in Ginsik linguistic group in Alaska and Canadian northwest territories; complain that they suffer the loss of food of traditional food sources caused by climate change.¹⁹⁰ Hunters now have to go further afield for animals, thereby increasing transportation costs, declining traditional culture among the younger generations and creating an economic strain on the community.¹⁹¹ The older methods of preserving meat, such as smoking and drying, are being lost due to weather conditions.¹⁹²

The Inhabitants of the Rigolet community and St. Lewis community in Nunatsiavut and Labrador, respectively and:

< <https://iopscience.iop.org/article/10.1088/1748-9326/4/2/024006/pdf>>; Erika Chamberlain, The Crown's Fiduciary Duties to Aboriginal Peoples as an Aspect of Climate Justice 2012 30-2 Windsor Yearbook on Access to Justice 289, 2012 CanLIIDocs 38.

¹⁸⁶ The Climate Reality Project, "How is Climate Change Affecting Canada?" (16 July 2018), online: <https://www.climate reality project.org/blog/how-climate-change-affecting-canada>

¹⁸⁷ Ashlee Cunsolo & Neville R. Ellis, "Ecological grief as a mental health response to climate change-related loss," 8 (2018) Nature Climate Change, 275 at 276, online: <https://www.nature.com/articles/s41558-018-0092-2>; Ashlee Cunsolo Wilcox et al., "Climate change and mental health: an exploratory case study from Rigolet, Nunatsiavut, Canada" (2013) 121 Climate Change at 255.

¹⁸⁸ Ashlee Cunsolo Wilcox, "From this Place and of This Place," climate change, sense of place, and health in Nunatsiavut, Canada," 75:3 (2012) Social Science and Medicine, online: https://ashleecunsolo.files.wordpress.com/2010/12/a-necessary-voice_petrasek-macdonald-2012.pdf at 538.

¹⁸⁹ Laura Kane, "Indigenous guardians raise the alarm on the impact of climate change in Canada," The Globe and Mail (March 14, 2019) <<https://www.theglobeandmail.com/canada/article-indigenous-guardians-raise-the-alarm-on-impact-of-climate-change-in/>>

¹⁹⁰ Vasilik Douglas et. al. "Reconciling Traditional Knowledge, Food Security and Climate Change: Experience from Old Crow, YT, Canada," 8:1 Progress in Community Health Partnerships: Research, Education, and Action 21 at 21 & 25
https://www.researchgate.net/publication/262607634_Reconciling_Traditional_Knowledge_Food_Security_and_Climate_Change_Experience_From_Old_Crow_YT_Canada [Douglas].

¹⁹¹ Douglas.

¹⁹² Douglas.

- reduced and foreseeable opportunities to collect and transport firewood, hunt and fish;
- additional-cost of buying processed foods,
- restrictions in setting traps, and
- Limited access to land from slushy ice surfaces that affect snowmobile travel and so on, due to shorter winters from weather changes resulting from climate change.¹⁹³

3.1.1.3 Older People

In Canada, extreme climate and weather events would impact health care services to seniors supported by community health agencies at home, thereby leaving them isolated and at risk.¹⁹⁴

3.1.1.4 Children

Increased temperatures from climate change pose a unique threat to children because kids need more air for their developing lungs.¹⁹⁵

3.1.1.5 Canadians with Health Complications

Climate change increases the risks to Canadians' mental health, especially those marginalized in society.¹⁹⁶ The wildfires that occur every year in Canada contribute to air pollution that causes cancer.¹⁹⁷ Women's lungs are particularly susceptible to lung cancer, and Canada has seen a spike in cancer-related deaths among females in recent

¹⁹³ Johanna Wolf, Hana Alice & Trevor Bell, "Values, Climate Change, and implications for adaptation: Evidence from two communities in Labrador, Canada (2013) 23 Environmental Change 548 at 553-555. <<https://www.sciencedirect-com.ezproxy.lib.ucalgary.ca/science/article/pii/S0959378012001380>>.

¹⁹⁴ John Muscedere & George Heckman, "Older people are at greater risk from climate change" (July 4, 2019), online: *The Star* <https://www.thestar.com/opinion/contributors/2019/07/04/older-people-are-at-greater-risk-from-climate-change.html>>

¹⁹⁵ Irena Buka, "Global climate change and health in Canadian children" (14 August 2019) *Canadian Paediatric Society* online: < <https://www.cps.ca/en/documents/position/global-climate-change>>.

¹⁹⁶ Katie Hayes, Peter Berry & Kristie L. Ebi, "Factors Influencing the Mental Health Consequences of Climate Change in Canada", 16: 9 (2019) *Int.J.Environ.Res.Public Health*, 1.

¹⁹⁷ Bendall.

years.¹⁹⁸ Some matters connected to Canada's climate change are an adverse change in food patterns, air and water-borne diseases, which may intensify through droughts.¹⁹⁹

3.2 *The Basis for Legislation on Environmental Matters in Canada*

3.2.1 The Federal Government

The *Constitution Act, 1867*²⁰⁰ determines the responsibility of each tier of government in Canada. The Act does not assign environmental regulation solely to any organ of government. However, the courts have held that it is a shared responsibility; thus, the federal, provincial and municipal governments can regulate the environment.²⁰¹

The federal government exercises conceptual powers and functional powers over the environment. Regarding conceptual powers, the environmental problem and the government's response is usually the connecting jurisdictional factor, and on this, the relevant provisions of the *Constitution Act, 1867* include the residual power on Peace, Order and Good Government (POGG) (section 91); the power on trade and commerce (subsection 91(2)), power on federal taxation (subsection 91(3)), national spending power and the criminal law power (subsection (91(27)). These powers grant the federal government the authority to:

- legislate on matters that do not fall within the exclusive jurisdiction of the federal government with the residual power of POGG that may arise in emergencies or situations of national concern as seen in *R v Hydro Quèbec*;
- support federal programs on environmental protection, tax undesirable environmental behaviour, and reward environmental conservation with the federal taxation power;

¹⁹⁸ Bendall.

¹⁹⁹ Yusa et al., at 8360.

²⁰⁰ *Constitution Act, 1867*, 30 & 31 Vict, c 3.

²⁰¹ Jonathan Kahn & Anne-Catherine Boucher (eds.), *Canada: Environment and Climate Change Law 2020*, *The International Comparative Legal Guides and the International Business Reports* (Canada: Global Legal Group, 2020) <<https://iclg.com/practice-areas/environment-and-climate-change-laws-and-regulations/canada>>.

- influence environmental activities, support interim regulations, provide an inducement to desist from environmental degradation and awards for environmental protection with the national spending power, and
- use the command and control approach to enact provisions that criminalize harm to human health.²⁰²

On functional powers, some heads of power give the federal government direct authority to implement laws on environmental matters to which human activities pose a threat; these federal government functional heads of power include jurisdiction over communication, transportation, navigation and shipping.²⁰³

3.2.2 Provincial Government

The authority of provinces in Canada stems mainly from s 92(1) and s 92(16) of the *Constitution Act, 1867*, concerning property and civil rights in the province and local and private nature matters.²⁰⁴ Two other relevant sources about the environment are s 92 (A) and s 109 of the *Constitution Act, 1982*.²⁰⁵ The former confers powers on the provincial governments to develop, conserve and manage non-renewable resources, forest resources and electricity, while the latter grants legislative authority to provinces resulting from ownership or proprietary rights over natural resources.²⁰⁶

3.2.3 Local, Municipal and Indigenous Governments

Local and municipal governments exercise jurisdiction over construction and zoning with by-laws, creating provincial laws and other similar matters; these governments derive their authority from provincial regulations.²⁰⁷ Indigenous

²⁰² Meinhard Doelle, “The Federal Environmental Assessment Process: A Guide and Critique (Markham: LexisNexis Butterworths, 2008) at 51-61 [Doelle, *Environmental Assessment*]; *R v Hydro Québec*, [1997] 3 S.C.R. 213.

²⁰³ Doelle.

²⁰⁴ Jamie Benidickson, *Environmental Law*, 5th ed (Toronto: Irwin Law, 2019) at 40-41 [Benidickson].

²⁰⁵ Benidickson at 41. *Constitution Act, 1982*, Schedule B to the Canada Act, 1982 (UK), 1982, c 11.

²⁰⁶ Benidickson.

²⁰⁷ Government of Canada, “Roles and Responsibilities of Governments in Natural Resources” online: *Government of Canada* <https://www.nrcan.gc.ca/our-natural-resources/minerals-and-mining/mining/taxation/mining-taxation-canada/roles-responsibilities-governments-natural-resources/8882> > [Government of Canada].

governments derive their powers from agreements with the federal and provincial governments; they exercise authority over reserve lands.²⁰⁸

3.2.4 Jurisdiction on Climate Change

Canadian governments consider climate change a threat and, based on the legislative division of powers, commit to a collaborative effort to address it effectively.²⁰⁹

3.3 Canada and the United Nations Climate Change Movement

There are two ways by which international law influences the model and application process of environmental law in Canada: the first is the global nature of the ecological problems that Canada faces, which it handles through the international legal order or cooperation, for example, joining multilateral agreements such as the Paris Agreement, 2015.²¹⁰ Second is Canadian environmental policies influenced by international public environmental law, principles, norms, and environmental protection institutions.²¹¹

Sands and Peel explain that Canada's involvement in the international legal order arises from the understanding that some ecological problems do not respect national territories, and whatever modes employed to address such issues are a matter of global cooperation.²¹² Thus, the international legal order regulates an international community's undertakings, member states, non-state actors, and international bodies while recognizing the state actors' permanent sovereignty over their natural resources.²¹³

²⁰⁸ Government of Canada.

²⁰⁹ Office of the Auditor General of Canada, "Perspectives on Climate Change Action in Canada—A Collaborative Report from Auditors General—March 2018" online: *Office of the Auditor General of Canada* <https://www.oag-bvg.gc.ca/internet/English/parl_otp_201803_e_42883.html> [OAGC]; Richard Lindgren, "Environmental Law 2020: Looking Down the Road" (13 January 2020) online: *Canadian Environmental Law Association* <<https://cela.ca/environmental-law-2020/>>

²¹⁰ William L. Tilleman et al., *Environmental Law and Policy* 4th ed (Toronto: Emond Montgomery Publications Ltd., 2020) at 117-118 [Tilleman et al.].

²¹¹ Tilleman et al. at 118.

²¹² Phillippe Sands & Jacqueline Peel, "The Environment and International Society" in *Principles of International Environmental Law* 4th ed (Cambridge: Cambridge University Press, 2018) at Chapter 1 [Sands].

²¹³ Sands.

Canada's involvement with the United Nation's Climate Change Regime begins with its acceptance of the objective of the *United Nations Framework Convention on Climate Change* in stabilizing GHGs in the atmosphere.²¹⁴ Although Canada pulled out of its commitment to the Kyoto Protocol, in its NDC under the Paris Agreement, Canada commits to reduce GHG emissions by 30% below 2005 levels by 2050 and achieve zero-net emissions by the year 2050.²¹⁵

Canadian governments outline steps for an effective response to climate change, and they include:

- proposals on detailed climate change mitigation and adaptation plans;
- effective consultation and engagement of all relevant stakeholders in the implementation of the proposed action plans;
- the application of action plans, practices and policies across the provinces and the federal government; and
- ensuring efficient monitoring and reporting on milestones on set goals.²¹⁶

3.4 Environmental Sustainability, Legal and Policy Action on Climate Change in Canada

Canada adopts two strategies for addressing climate change. The first strategy is mitigation, while the other is adaptation.²¹⁷

²¹⁴ Jenette Poschwatta, "Alberta's 2008 Approach to Climate Change: A Step Forward?" (2008) Canadian Institute of Natural Resources Law Occasional Paper No 24 at 8.

²¹⁵ Silvia Maciunas & G raud de Lassus Saint-Geni s, "The Evolution of Canada's International and Domestic Climate Policy: From Divergence to Consistency?" (2018) Centre for International Governance Government of Canada Paper No 21, online:

<<https://www.cigionline.org/sites/default/files/documents/Reflections%20Series%20Paper%20no.21%20Maciunas.pdf>>; [Maciunas & Saint-Geni s]; United Nations Framework Convention on Climate Change", online: *Government of Canada* <https://www.canada.ca/en/environment-climate-change/corporate/international-affairs/partnerships-organizations/united-nations-framework-climate-change.html>.

²¹⁶ OAGC.

²¹⁷ Benidickson at 398.

As a signatory to several agreements that aim to achieve sustainable development, Canada commits to doing the same in domestic legislation at the federal, provincial and territorial levels.²¹⁸

3.4.1 Federal Government Actions

The federal government introduced the *Canadian Environmental Protection Act*, 1999 to prevent pollution and contribute to sustainable development.²¹⁹ Before its eventual withdrawal from the Kyoto Protocol, two federal climate change implementation initiatives by the Federal government in the years 2000 and 2002, respectively, were:

- the Government of Canada Action Plan 2000, which targeted the reduction of GHG emissions by 65 MT yearly by 2010;²²⁰ and
- the Climate Change Plan for Canada,²²¹ which eventually introduced Project Green—Moving Forward in Climate Change: A plan for Honouring our Kyoto Commitment.²²² The federal government’s first regulation that aimed to reduce GHG in line with the Agreement is the *Kyoto Protocol Implementation Agreement* (KPIA) (now repealed).²²³

In 2018, the federal government enacted the *Greenhouse Gas Pollution Pricing Act* (GGPPA)²²⁴ as a valid exercise of its POGG Power.²²⁵ The Act implements its year 2016 Pan African Approach to Carbon Pricing Plan to reduce GHG emissions 30

²¹⁸ Erin Ellis, *An Evaluation of Environmental Sustainability Reporting in Canada* (B.Sc. Dissertation, Simon Fraser University, 2013) [Unpublished] at 6.

²¹⁹ *Canadian Environmental Protection Act*, SC 1999, c 33 at preamble.

²²⁰ Government of Canada, *Government of Canada Action Plan 2000 on Climate Change* (Ottawa: Government of Canada, 2000); John Ayres et al., “Government of Canada’s Action Plan 2000 on Climate Change and Specific SF6 Reduction Strategies for the Magnesium Sector” online: http://www.epa.gov/sites/production/files/2016-02/documents/conf02_fasoyinu_paper.pdf

²²¹ Government of Canada, “Climate Change Plan for Canada.

²²² Project Green—Moving Forward on Climate Change: A Plan for Honouring Our Kyoto Commitment (Ottawa: Environment Canada, 2005).

²²³ *Kyoto Protocol Implementation Act*, SC 2007, c. 30.

²²⁴ *Greenhouse Gas Pollution Pricing Act*, SC 2018, c. 12, s. 186[GGPPA].

²²⁵ *References re Greenhouse Gas Pollution Pricing Act*, 2021 SCC 11 (CanLII), <<https://canlii.ca/t/jdwnw>>. Jason Maclean, Climate Change, Constitutions and Courts: The Reference re Greenhouse Gas Pollution Pricing Act and Beyond, 2019 CanLIIDocs 2718” (2019) 82:2 Saskatchewan Law Review 147 <<http://www.canlii.org/t/smkx>> [Maclean].

percent below 2005 levels in 2030.²²⁶ The Act recognizes that responsibility for GHG emissions lies in the polluter pays principle.²²⁷ It imposes a fuel charge on over twenty GHG that contributes to climate change.²²⁸ Maclean opines that the reduction goal of the Act is insufficient and unattainable.²²⁹

3.4.2 Provincial Government: Alberta

Alberta is the biggest provincial emitter of GHG in Canada. In response to the *Albertans and Climate Change: Taking Action* report in 2002,²³⁰ which recommends mandatory reporting by industrial polluters in the province, the government enacted the *Climate Change and Emissions Management Act (CEMA)*.²³¹ The Act provided a province-wide emission reduction target of 50 percent below 1990 levels or a reduced target.²³² In 2007, the *Climate Change and Emissions Management Amendment Act (CCEMAA)* replaced the CEMA.²³³ With the CCEMAA and the:

- *Emissions Management and Climate Resilience Act*;
- *Climate Leadership Implementation Act*;
- *Oil Sands Emissions Emission Limit Act*; and
- *Carbon Competitiveness Regulation*;

Alberta's climate change regulatory regime combines cuts on GHG emissions by large industrial emitters and levies imposed on GHG.²³⁴

²²⁶ Environment and Climate Change Canada, Pan-Canadian Approach to Pricing Carbon Pollution (3 October 2016), online: *Government of Canada* <<https://www.canada.ca/en/environment-climate-change/news/2016/10/canadian-approach-pricing-carbon-pollution.html>>.

²²⁷ GGPPA, at preamble.

²²⁸ GGPPA at Part I.

²²⁹ Maclean.

²³⁰ Alberta Government, "Albertans and climate change : moving forward" (1 January, 2007) online: *Alberta Government* <<https://open.alberta.ca/dataset/7f335c7e-e05c-4b22-b101-a440157fea67/resource/7ff2312f-6eab-4148-849d-07facefc56e2/download/207814-2017-12-07-015251.pdf>>.

²³¹ *Climate Change and Emissions Management Act*, SA 2003, c C-16.7 [CEMA].

²³² CEMA at ss 3 & 4.

²³³ *Climate Change and Emissions Amendment Act*, SA 2007, c 4.

²³⁴ *Emissions Management and Climate Resilience Act*, SA 2003, c E-7.8; *Climate Leadership Implementation Act*, SA 2016, c 16; *Oil Sands Emissions Limit Act*, SA 2016, c O-7.5; *The Carbon Competitiveness Regulation*, Alta Reg 255/2017.

3.5 Climate Justice and Human Rights in Canada

3.5.1 Does Climate Change Violate the Canadian *Charter*?²³⁵

Regarding human rights and climate change in Canada, activists argue that climate change violates s 7(1) and 15(1) of the *Charter*.²³⁶ Looking at climate change through the lens of s 7 of the *Charter*²³⁷ shows that it increases the risk of mortality and liberty and affects indigenous people by putting their communities, cultural practices, and food security at risk.²³⁸ It affects a person's safety by instilling the fear of losing one's community or way of life and extreme weather events.²³⁹

Everyone is a potential claimant of s 7, while s 15²⁴⁰ only applies to certain persons that can claim under analogous grounds.²⁴¹ Such persons include Indigenous persons and or communities in the north, youth and future generations, senior women, pregnant women, coastal communities and farmers.²⁴²

There are several United Nations Agreements to which Canada is a party that provide the right to equality of the person and power to live applicable to vulnerable people. The first is the *International Covenant on Civil and Political Rights* (ICCPR).²⁴³ Art. 26 of the ICCPR provides that all persons are equal before the law and are entitled to its equal protection without any form of discrimination; Art 25 is to the effect every

²³⁵ *Canadian Charter of Rights and Freedoms*, 1982, Schedule B to the Canada Act, 1982 (UK), 1982, c 11 [Charter].

²³⁶ Nathalie Chalifour, "Feeling the Heat: Using the Charter to take on climate change in Canada" PowerPoint presentation delivered at the Ontario Climate Consortium-Just Transformation Climate Law and Justice Panel <<https://climateconnections.ca/app/uploads/2017/06/1B-Nathalie-Chalifour.pdf>> [Chalifour].

²³⁷ *Charter* Section 7 reads: 7. Everyone has the right to life, liberty and security of the person and the right not to be deprived thereof except in accordance with the principles of fundamental justice.

²³⁸ Chalifour.

²³⁹ Chalifour.

²⁴⁰ *Charter* s 15 reads: 15. (1) Every individual is equal before and under the law and has the right to the equal protection and equal benefit of the law without discrimination and, in particular, without discrimination based on race, national or ethnic origin, colour, religion, sex, age or mental or physical disability.

(2) Section (1) does not preclude any law, program or activity that has as its object the amelioration of conditions of disadvantaged individuals or groups including those that are disadvantaged because of race, national or ethnic origin, colour, religion, sex, age or mental or physical disability.

²⁴¹ For a more detailed discussion on how the *Charter* works in Canada, see: ACLRC: "Know Your Charter Rights" online: <<https://www.aclrc.com/how-do-i-make-a-charter-claim>>.

²⁴² Chalifour.

²⁴³ See *International Covenant on Civil and Political Rights*, 19 December 1966, 999 UNTS 171, art 6 (entered into force 23 March 1976, accession by Canada 19 May 1976).

citizen of a country should have equal access to its public services and participate in public affairs, whether directly or indirectly, while Art 6 provides that every human being has the inherent right to a life worthy of constitutional protection. Another relevant Agreement is ICESCR. Canada's accession to the ICESCR was May 19, 1976; the treaty entered into force on August 19, 1976.²⁴⁴

Can Canada argue absolution from all responsibility for climate change since it only emits a small portion of global emissions?

Perhaps the courts may adopt the stance of the government in the Dutch case where the court rejected the above argument because:

- Nations have both an individual and collective responsibility;
- Every emission contributes to the rising global concentration of CO₂;
- Annex I countries must assume a leading role in actions against climate change; and
- Dutch per capita emissions are high.²⁴⁵

If claiming under s15, claimants need to show that the government creates a distinction that creates disadvantages; the claimant must show that he or she receives a different treatment than others, carries a burden that others do not, and that there was a denial of a benefit given to others.²⁴⁶

3.5.2 Climate Change Lawsuits

Human rights cases challenging governments for insufficient action on climate change are on the rise. In the past, lawsuits that combined a human-rights-based

²⁴⁴ Government of Canada, "Canada's appearance at the United Nations Committee on Economic, Social and Cultural Rights," online: Government of Canada <https://www.canada.ca/en/canadian-heritage/services/canada-unesco-2015-report/commitments-economic-social-cultural-rights/canada-appearance.html>.

²⁴⁵ Chailfour.

²⁴⁶ Chalifour.

argument with a large-scale environmental issue occurred through the 'soft law' of Canada's international commitments.²⁴⁷

In November 2018, an application was filed by Environment JEUnesse, alleging the infringement of the right to life and security of the person of young people under s 7 of the young people and section s 15 of the *Charter*.²⁴⁸

In 2013, a petition filed before the inter-commission on Human Rights by the Arctic Athabaskan Council argued that Canada's lack of regulation of black carbon emissions violates rights to culture, property & health under the *American Declaration of the Rights and Duties of Man* (Parliament of Canada).²⁴⁹

In 2019, the City of Victoria approved a class-based climate change action lawsuit against oil and gas companies for costs incurred by city residents from the impact of companies burning fuels on the environment. However, the city mayor, the driving force behind the call for municipalities to support climate change action, later backtracked on the plan after heavy criticism.

*Lho'imggin et al. v Her Majesty the Queen*²⁵⁰

This lawsuit was brought against the Canadian government by the Wet' suwet' en Indigenous group who allege that:

The approach of the government to climate change violates their constitutional and human rights. They claim that Canada's alleged infringement is on three grounds:

- i. Failing to meet international commitments for GHG reduction, including:
 - Canada's responsibility at the 1992 *United Nations Framework Convention on Climate Change*;
 - The 1992 international conference on the changing atmosphere;
 - The 1998 Kyoto Protocol;

²⁴⁷ Library of Parliament, "A Human Rights Approach to Climate Change: What is the State of the Law in Canada" (February 6, 2019), online: *Parliament of Canada* <<https://hillnotes.ca/2019/02/06/a-human-rights-approach-to-climate-change-what-is-the-state-of-the-law-in-canada/>> [Parliament of Canada].

²⁴⁸ Library of Parliament, "A Human Rights Approach to Climate Change: What is the State of the Law in Canada" (February 6, 2019), online: *Parliament of Canada* <<https://hillnotes.ca/2019/02/06/a-human-rights-approach-to-climate-change-what-is-the-state-of-the-law-in-canada/>> [Parliament of Canada].

²⁴⁹ Parliament of Canada.

²⁵⁰ *Lho'imggin et al. v Her Majesty the Queen*, 2020 FC 1059.

- The 2009 Copenhagen Accord;
 - The 2010 Cancun Agreement; and
 - The 2015 Paris Agreement.
- ii. Canada's NDC under the Paris Agreement is insufficient to fulfill commitments to keep at 1.5 degree Celsius or below; and
- iii. the government's failure to exercise discretion to refuse approval of GHG emitting ventures.

They argue that eliminating the above will help the country meet its Paris Agreement commitments. That indigenous people's historical treatment and the racial discrimination they face aggravate their psychological and social damage.

Some of the declaratory reliefs that they seek are:

- An order requiring the government to amend each of its environmental assessment statutes that apply to current GHG emitting projects to allow project approval cancellation if Canada is unable to meet its Paris Agreement commitments; or
- an order that climate change is a national emergency; and a court order for the government to prepare an annual account of its cumulative GHG emissions in a format that allows a comparison to Canada's carbon budget.²⁵¹

La Rose v The Queen

In this lawsuit, the plaintiff, all teenagers, argued before the Federal High Court through the doctrine of public interest standing that youths and future generations are at particular risk from climate change and have already begun to feel its effects in Canada. They alleged that the defendants breached their public interest duties to protect Canada's waters and their resources, the air, including the atmosphere, and permafrost. The case was dismissed for failure to disclose a reasonable cause of action and is currently on appeal before the Federal High Court of Appeal.²⁵²

²⁵¹ Parliament of Canada.

²⁵² Climate Case Chart, *La Rose v Her Majesty the Queen* 2020 FC 1008 online: *Climate Case Chart* <<http://climatecasechart.com/non-us-case/la-rose-v-her-majesty-the-queen/?cn-reloaded=1>>.

ENvironnement JEUne Lho'imggin et al. v Her Majesty the Queen v Canada

In this case, the plaintiff, a not-for-profit environmental organization, brought an action against the Canadian government on behalf of Quebec citizens from 0 - 35 years.²⁵³ One important thing to note about this case is that before its dismissal, the judge pointed out that the effect of climate change is justiciable, and both the Canadian and Quebec Charters apply to government actions in that area.

²⁵³ ENvironnement JEUnesse, “Youth v. Canada” online: *ENvironnement JEUnesse*, online : <
<https://enjeu.qc.ca/justice-eng/>>.

Part IV

Criticisms of Climate Justice and Recommendations

4.1 International Climate Justice

On the international scene, Islam and Winkel attribute the climate problems experienced by vulnerable people to:

- The lack of a unifying conceptual framework or evidence of inequality; and
- The lack of scientific research on climate harm that disadvantaged people suffer from climate change.²⁵⁴

Although the climate justice movement has gained some ground in bringing the needs of vulnerable people to the forefront in the climate change discourse, it is fraught with criticisms. One of the inefficiencies of justice in the climate change discourse is the under-representation of women, particularly in rural communities, in the climate change adaptation process. There is also talk of research gaps in areas that would make the climate justice movement stronger. Werritty, et al argue that there is a void in researching the long-term and abstract effects of climate change incidents on people's wellbeing.²⁵⁵ Disseminating information communities in danger of climate catastrophes and preparing plans to address such events is another area deserving of further research. However, another area is the effects of climate change on local business activities. For example, a study conducted revealed that in coastal zones, climate change effects in the UK show that such results sometimes lead to forced migration and displacement.

4.2 Climate Justice in Canada

In Canada, some researchers are skeptical of the federal government's show of enthusiasm for climate change mitigation on the international front, arguing that such passion lacks domestic action as displayed in inconsistencies and inactions. They

²⁵⁴ Islam & Winkel.

²⁵⁵ Alan Werritty, "Exploring the Social Impacts of Flood Risk and Flooding in Scotland" (2 April 2007) online: UKWA <<http://www.scotland.gov.uk/Publications/2007/04/02121350/0>>.

conclude that such discrepancies, in contrast to acts, arise from the international climate change regime's aspirational nature.²⁵⁶

Climate vulnerability is an adaptation issue, and the Council of Canadian Academies finds that the Canadian government falls short in adaptation decision-making.²⁵⁷ The government places a higher priority on mitigation rather than adaptation; this should not be the case.²⁵⁸

A report of the Standing Committee on Environment and Sustainable Development concludes that from a human rights perspective, one of Canada's focal law on environmental protection, the *CEPA*, does not provide for the environmental human rights of indigenous people enshrined in the United Nations Declaration on Human Rights (*UNDRIP*), an international agreement recognized by Canada.²⁵⁹ The committee also argues that the Act does not provide for 'environmental justice' by addressing the inequalities of exposure to toxic substances and such exposure vulnerabilities.²⁶⁰ Another deficiency is procedural environmental regarding greater transparency in environmental decision making, access to justice and public participation in environmental decision making.²⁶¹ Lastly, the Act lacks a practical approach to the substantive right to environmental equality.²⁶²

²⁵⁶ Maciunas at 13.

²⁵⁷ House of Commons, "Report of the Standing Committee on Environment and Sustainable Development: Healthy Environment, Healthy Canadians, Healthy Economy, Strengthening the Canadian Environmental Protection Act, 1999 (June 2017) at 5, online (pdf):

< <https://www.ourcommons.ca/Content/Committee/421/ENVI/Reports/RP9037962/envirp08/envirp08-e.pdf>>.

²⁵⁸ Gideon Forman, "Climate Change Already Makes Us Sick" (April 2015), online: *Science and Solutions* <https://www.alternativesjournal.ca/science-and-solutions/climate-change-already-makes-us-sick>> [Forman]

²⁵⁹ Forman at 6.

²⁶⁰ Forman.

²⁶¹ Forman.

²⁶² Forman.

4.3 Recommendations

4.3.1 International

In world efforts to transition to a global carbon economy, governments should address equity among vulnerable people in achieving sustainable development.²⁶³

Andrew Gage and Margaretha Wewerinke recommend that the international climate change regime should create an international model *Climate Compensation Act* founded on the tort of nuisance, that will provide *inter alia* for the following :

- clarify the law on climate change legal action, or alter the existing norm to recognize more heads of climate claims;
- identify the locus-standi [ability to go to court] for plaintiffs and defendants for climate-related damages;
- outline what rules apply to determine whether the actions of a defendant are responsible for climate-connected compensation; and
- identify the jurisdiction of national courts regarding the provisions of the Act.²⁶⁴

Some other recommendations include:

- create international and national laws, policies, and mechanisms to address the impacts of climate immigration by state governments; and²⁶⁵
- redress climate change impacts on the enjoyment of human rights, particularly the rights to equality by vulnerable people, to forestall the possibility of unrest from prolonged marginalization and access to justice issues.²⁶⁶

²⁶³ Wright & Nance, at 21.

²⁶⁴ Andrew Gage & Margaretha Wewerinke, "Taking Climate Justice into our Own Hands A Model Climate Compensation Act" (1 December 2015) WestCoast Environmental Law at 4, 5, 6 & 24, online: (pdf): *West Coast Environmental Law* https://www.wcel.org/sites/default/files/publications/cca_report_updated_web.pdf

²⁶⁵ Martin, at 398.

²⁶⁶ Lyal S. Sungha, "Does Climate Change Kill People in Darfur?" (2011) 21:1 J of Human Rights & the Environment 64 at 84.

4.3.2 Canada

Amnesty International says that Canada is not doing enough to address human injustices from climate change.²⁶⁷ It recommends that positive steps that Canada should take in this regard include a complete phase-out of fossil fuels and a shift to the use of renewable energy by the year 2040; making sure that the transition from fossil to renewable energy protects and safeguards human rights and providing financial and technical support to assist vulnerable communities with mitigating and adapting to climate change.²⁶⁸

Regarding Indigenous communities, the Canadian government should do away with the fear that the inclusion of the narrative of Indigenous people's perspectives in environmental protection would dominate its view on solutions to environmental problems, including climate change, through greater integration of their participation in the decision-making process.²⁶⁹

The federal, provincial and territorial governments should create mechanisms on climate change action by;²⁷⁰

- conducting risk assessments to identify low-income and vulnerable communities that are at risk of being disproportionately affected by climate change and appraise how much adaptation funding the communities require;
- facilitating studies on low-income barriers to ascertain the political, social, economic, psychological and technological factors that will underscore the adaptation capacity of low-income and vulnerable communities to climate change; and
- creating measures to ensure that the federal government and governments at the provincial and territorial levels use climate change adaptation funds to

²⁶⁷ Amnesty International, "How is the Climate Crisis a Human Rights Issue", online: Amnesty International <<https://www.amnesty.ca/paragraphs-pages/climate-justice>> [Amnesty International].

²⁶⁸ Amnesty International.

²⁶⁹ Heather A. Smith, "Choosing not to see" (2010) *International Journal* 931 at 941.

²⁷⁰ Theresa Mclenaghan, "Climate Change and Vulnerable Communities" (Presentation delivered at the climate change symposium, International Research Events at Western 12 November 2019) [Unpublished].

effectively deal with the outcome of carbon-pricing on financially disadvantaged communities.²⁷¹

In addition to the above, we also recommend a Federal Climate Compensation Act in Canada that recognizes that climate change affects vulnerable populations' rights to equality and dignity. The said Act should provide financial compensation and adaptation strategies for affected communities.

4.4 Conclusion

After considering how the law can effectively address the disproportionate impact of climate change on vulnerable populations in Canada, this study finds that climate justice theory is the premise for challenging climate vulnerability. Atmospheric litigation is one method used by affected people to assert wrongdoing from climate change through the public trust doctrine, fundamental human rights or nuisance. On human rights, plaintiffs do not raise the right to dignity as a stand-alone basis for climate change human rights violation claims. Most atmospheric climate change litigation is a combination of the public trust doctrine, torts, and the right to life, a healthy environment and dignity. Canadian courts are reluctant to grant human rights claims in climate change litigation, and one major hurdle to successful human rights litigation on climate change is the lack of scientific evidence to link the climate calamities and hardships that plaintiffs allege to climate change.

²⁷¹ Theresa Mclenaghan, "Climate Change and Vulnerable Communities" (Presentation delivered at the climate change symposium, International Research Events at Western12 November, 2019) [Unpublished].

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