

A Never-Ending Fight to Defend One's Land?

Environmental Justice for Indigenous Communities in Canada

Lieke van de Donk

Bachelor's Thesis

dr. Diana Reckien and dr. Pascal Wilhelm

BSc Technology, Liberal Arts & Sciences (ATLAS)

University of Twente

12 July 2024



[Page intentionally left blank]

Acknowledgements

The contributions and encouragement of many were essential to completing my bachelor thesis project as it is, so I would like to thank all those who supported me.

Thank you to my daily supervisors, Dr. Diana Reckien and Dr. Pascal Wilhelm, for their valuable guidance. Their expertise and support were crucial in shaping the direction and quality of my research. I am grateful for the discussions we had, the insightful feedback I received, and the reassurance that I was on the right track when I doubted myself.

Secondly, I appreciate the initial supervision and insights provided by Dr. Cheryl de Boer. Her contributions were instrumental in developing the research design during the early stages of my project.

Special thanks also go to Aart Beunderman, the study advisor, and Dr. Jovana Jezdimirovic Ranito, one of my teachers from ATLAS. I am grateful for their kind support and encouragement, despite their busy schedules.

To my parents and Maarten: thank you for all the encouragement, love and understanding, especially during challenging times. I am also thankful for my friends who studied together with me, motivated me, and spent quality time with me in between study sessions. You made the process more enjoyable!

Explanation of Front Page Image

The design on the front page is part of the promotion materials for Canada's National Indigenous History Month of June 2024 (Government of Canada, 2024b). The purpose of these materials is to highlight Indigenous cultures and promote equity across all communities. Every element on the front page embodies a facet of Indigenous identity: the eagle symbolises the First Nations, the violin represents the Métis, and the narwhal stands for the Inuit. Additionally, the elements water, air, fire and earth are visually depicted. For instance, the sun symbolises the summer solstice and embodies the element fire. Lastly, the multicoloured smoke illustrates the multiplicity and variety of all Indigenous individuals and communities. Smoke holds great importance for First Nations, Métis, and Inuit due to its diverse roles in their cultures and traditions.

Abstract

Indigenous Peoples (IPs) in Canada face ongoing systemic oppression in their centuries-old fight for rights. IPs' top three priorities are acquiring FPIC, self-governance and -government rights, and land and resource rights, as land is central to their identity. Despite the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP) being adopted into Canadian law with the UNDRIP Act (2021) and Action Plan (2023), Canada lags in meeting international self-determination and land tenure laws. Addressing the roots of land rights conflicts is essential to improving policies, laws, and the implementation of the UNDRIP Act and Action Plan. Accordingly, obtaining a state-of-the-art overview of the workings of land conflicts could provide valuable insights into their complex interactions and patterns.

This study aims to acquire a state-of-the-art overview of land conflicts involving Indigenous communities in Canada using the Systematic Literature review (SLR) method. The secondary data extracted from the 18 selected studies was analysed using qualitative coding techniques.

Findings reveal the conflicts' locations, timeframes, and involved IPs and other parties. Opposing actors employ four main approaches in land conflicts: legislative actions, political and legal manoeuvres, economic tactics, and cultural/environmental neglect. IPs respond through legal actions, political and economic engagement, community mobilisation, and cultural/environmental stewardship. The consequences for IPs fall into socio-cultural, environmental, legal, and economic categories. The study highlights the implications of avoiding climate apartheid, enhancing reconciliation, and advancing natural science research. It recommends further research on IPs' land rights to dismantle lingering settler-colonial structures.

Keywords: Indigenous communities, Canada, land conflicts, Indigenous environmental justice, SLR

Table of Contents

List of Figures	7
List of Tables	7
List of Acronyms	7
1 Positionality Statement	8
1.1 Concept of Positionality	8
1.2 Background and Personal Lenses	8
2 Introduction.....	10
2.1 United Nations Declaration on the Rights of Indigenous Peoples	10
2.2 Land at the Core of the Indigenous Identity.....	11
2.3 Research Gap and Relevance	11
2.4 Research Design of Qualitative Literature Review.....	13
3 Theoretical Framework.....	14
3.1 Pillars of the Study.....	14
3.2 Development of an Indigenous Environmental Justice Lens	16
3.2.1 Origin of Environmental Justice.....	16
3.2.2 Distributive, Procedural, Social and Corrective Justice	16
3.2.3 Critical Environmental Justice (CEJ) Framework.....	17
3.2.4 Epistemic Injustice	17
3.2.5 Indigenous Environmental Justice (IEJ) Framework.....	18
4 Methodology	19
4.1 Benefits of the SLR method.....	20
4.2 Literature Databases.....	20
4.3 First Round of Phases A & B: Literature Collection and Categorisation	20
4.3.1 First Round: Keywords and search string.....	20
4.3.2 First Round: Literature Selection.....	21
4.4 Second Round of Phases A & B: Literature Collection and Categorisation.....	23
4.4.1 Second Round: Keywords and search string	24
4.4.2 Second Round: Literature Selection	25
4.5 Phase C. Analysing the data.....	25
5 Results.....	27

5.1	Characteristics of the Land Conflicts.....	27
5.2	Systems, Mechanisms and Actions Used by the Opposing Actors.....	30
5.2.1	Law, Legislature and Policy Implementation.....	30
5.2.2	Legal and Political Manoeuvres in Consultation Mechanisms.....	31
5.2.3	Economic Tactics and Incentives.....	32
5.2.4	Cultural Assimilation and Environmental Neglect.....	33
5.3	Systems, Mechanisms, and Actions Used by the Indigenous Communities.....	34
5.3.1	Legal Actions.....	34
5.3.2	Political Engagement and Economic Opportunities.....	35
5.3.3	Community Mobilisation.....	37
5.3.4	Cultural Revitalisation, Environmental Stewardship and Repossession.....	37
5.4	Consequences of Land Conflicts for IPs in Canada.....	38
5.4.1	Socio-Cultural Impacts and Reconciliation Challenges.....	38
5.4.2	Environmental and Health Impacts.....	39
5.4.3	Legal and Political Ramifications.....	39
5.4.4	Societal and Economic Consequences.....	40
6	Discussion.....	41
6.1	Interpreting and Comparing the Results.....	41
6.2	Limitations.....	43
6.3	Theoretical Contributions.....	44
7	Conclusion & Contextual Exploration.....	45
7.1	Implications.....	45
7.2	Recommendations for Future Research.....	46
8	References.....	48
9	Appendices.....	55
9.1	Appendix A. Keywords.....	55
9.2	Appendix B. Search strings.....	56
9.2.1	Search String of the First Round.....	56
9.2.2	Search String of the Second Round.....	57

List of Figures

Figure 1 The SLR Method. The figure originally comes from Pickering and Byrne (2014, p. 539), with a small change by indicating the phases for this study.....	19
Figure 2 Visualisation of the search string of the first round.....	21
Figure 3 PRISMA statement (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) of the first round.....	23
Figure 4 Visualisation of the search string of the second round.....	24
Figure 5 PRISMA statement (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) of the second round.....	25
Figure 6 Map of Canada indicating the number of case studies conducted (partially or fully) in each province.....	29

List of Tables

Table 1 Synonyms and related concepts of “Indigenous” used in literature search.....	21
Table 2 Inclusion and exclusion criteria to assess and choose literature in the first round of phases A and B.....	22
Table 3 Synonyms and related concepts of “land conflict” used in literature search.....	24
Table 4 Overview of the studies included in the data analysis with information about their characteristics.....	27

List of Acronyms

IPs	= Indigenous Peoples
UNDRIP	= United Nations Declaration on the Rights of Indigenous Peoples
IKS	= Indigenous Knowledge Systems
EJ	= Environmental Justice
IEJ	= Indigenous Environmental Justice
SLR	= Systematic Literature Review

1 Positionality Statement

A positionality statement is not yet commonly included in scientific literature. Hence, I will explain what it entails, why it is essential to include such a statement in this type of research, and how I discovered it before sharing my positionality statement.

1.1 Concept of Positionality

Positionality means positioning oneself in a given context and reflecting on the political, social, and cultural lenses through which someone sees the world. These lenses differ per person based on their epistemological and ontological beliefs and how they believe humans interact with each other and nature (Holmes, 2020). I learned in a few courses about positionality and why it is vital in research, especially in critical social science research. Scholars argue that one's positionality influences the research topic and how one conducts research and interprets results because of possible biases and misconceptions that are unconsciously projected on the study (Holmes, 2020; Bourke, 2014; Savin-Baden & Major, 2013). It is impossible to be completely objective in research. However, by developing a positionality statement, you try to reach the highest level of objectivity possible by reflecting on one's positionality throughout the entire study (Holmes, 2020). In this research, I included three areas of positionality that Savin-Baden and Major (2013) recommend discussing. This section elaborates on my background and the personal lenses I developed. In the discussion section at the end of my thesis, I situate myself in the research context and process based on these lenses and reflect on how my positionality changed throughout the capstone project.

1.2 Background and Personal Lenses

I am a Dutch white woman who grew up in a middle-class family. I had, by Dutch standards, a progressive Western upbringing and education. My parents did not baptise me, but there were quite some elements of Christianity in my life because of, for example, my religious grandparents and the Catholic primary school I attended. As a child, I did not realise how privileged I was, and I do not think I will ever be fully aware of it. To my memory, I have rarely, if ever, been excluded for the following intersectional notions of difference: race, ethnicity, nationality, citizenship, economic class, or education. An example that illustrates how unaware I was of my privileges growing up was an experiment my teacher did. She separated the children with blond hair, which included me, from the other children. Whilst we, the blond children, had to work on an easy assignment, the other children got a difficult arithmetic lesson from the teacher. All the children were unsure why the teacher was doing this, but we did not ask questions; we just tagged along. Some children even got very caught up in 'properly' grouping everyone. After a short while, the teacher interrupted everyone and asked us why we thought she did this. After a clueless silence, she explained that this was an experiment to show what discrimination is. I remember feeling so bizarre as something like this had never happened.

After high school, I wanted to join a bachelor's program with the possibility of exploring different academic directions a little. However, environmental science was already the specialisation aching in the back of my

head. Moreover, I wanted to become part of a diverse student population in terms of nationalities and cultures because I wanted to step out of my comfort zone. In ATLAS, I learned from peers about their diverse backgrounds and what sustainability meant to them. Consequently, I became more interested in the “social side” of climate change concerning environmental justice, policy and governance. I built my academic profile accordingly by taking courses about communities’ vulnerability and resilience to climate change and the marginalisation they endure (e.g., the master’s courses Local Climate Change Planning at ITC and Land & Water Politics at Wageningen University). Outside of academics, I also increasingly consumed more about everything related to the climate crisis by reading books, joining Scientists4Future Twente and the student association Sustain, and following organisations and people (also on social media) who educate their followers on different environmental crises.

Indigenous environmental justice was a part of environmental sociology that I had little knowledge of before starting this research. The images that came to mind when thinking about Indigenous communities before this research were quite stereotypical. I didn’t know much about the historical relationship between Indigenous Peoples (IPs) and Western society. Only in the past few years has my understanding of Indigeneity broadened, as media coverage of Indigenous communities has increased. For instance, the news started reporting more about the deforestation in the Amazon and the Indigenous Peoples that defended their ancestral lands. I do not believe that the techno-fix paradigm will solve all problems in the climate crisis, as I learnt during my bachelor’s that the intricacy of social systems and societies often forms major bottlenecks. Therefore, I appreciate the fact that I was able to research land conflicts involving Indigenous communities in Canada and hope to gain a more nuanced and thorough understanding of their lives and values.

2 Introduction

In Canada, the story of the rights of Indigenous Peoples (IPs) is one of ongoing struggles against systemic oppression. The country made commendable strides, such as the protection of IPs' rights in section 35 of the Constitution Act of 1982 (Mitchell, 2019) and the declaration in 2009 to make June National Indigenous History Month (Schwientek, 2023). Despite these good intentions for Indigenous rights advocacy, there is a centuries-old track record of oppressing the First Nations, Métis, and Inuit communities, the original inhabitants of what is now known as Canada. (Smith & Mitchell, 2020; Tsuji, 2022). On top of that, although IPs from Canada have provided significant contributions to the recognition of Indigenous rights, the state is massively behind in meeting the international expectations of Indigenous rights' protection (Mitchell, 2019; Smith & Mitchell, 2020).

This legacy of Indigenous oppression is not limited to Canada: all over the world, the human rights of IPs continue to be violated (e.g., Atapattu et al., 2021; Maddison, 2022; Short & Lennox, 2018). IPs are challenged with limited access to clean water, health care, education, and employment and must fight against governments and industries who try to take away Indigenous ancestral lands, often for resource-extractive purposes (Short & Lennox, 2018, p. 23). With the looming deadline of the 2030 Agenda for Sustainable Development, it becomes increasingly difficult for the United Nations (UN) to show that they successfully "left no one behind", their credo, thus also not the ~476.6 million IPs worldwide (Brondízio et al., 2021; *Transform Landmark Indigenous Rights Declaration into Reality*, 2024).

2.1 United Nations Declaration on the Rights of Indigenous Peoples

Regarding international expectations, Canada stands out because it was one of the four countries (together with Australia, New Zealand, and the United States) that voted against the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP) (Nagai, 2021). The UNDRIP is one of the primary legal documents to protect Indigenous rights, and with only four votes against it and 144 member states in favour, it was adopted on 13 September 2007 (Short & Lennox, 2018, p. 4). The UNDRIP details the rights of Indigenous peoples in international policy and law, which includes rights concerning, among others: 1) individuals and the collective; 2) culture, language, and identity; 3) education; 4) health; and 5) employment (Office of the High Commissioner for Human Rights, 2007). Furthermore, UNDRIP depicts the prohibition of discrimination against IPs and the promotion of respectful cooperation and relations between IPs and states (Office of the High Commissioner for Human Rights, 2007).

Canada's explanation against the UNDRIP was threefold (e.g., Mitchell, 2014; Nagai, 2021; Smith & Mitchell, 2020). First, they believed it was not legally enforceable, as a declaration would not hold the same power as a treaty. Second, they argued that its stipulations would not reflect established international legal norms. Finally, they did not believe the declaration could have any legal standing within Canada specifically, as it could not be matched with existing national, federal, and provincial legislation. One could argue that this last viewpoint is rather odd, as any document detailing human rights would be unnecessary if legislation already adhered to these fundamental rights.

Nevertheless, after Canada's initial disapproval and thus vote against the UNDRIP, Canada slowly endorsed the UNDRIP in different stages. First, in 2016, the federal government changed course with Justin Trudeau as the new prime minister and endorsed the UNDRIP nevertheless (Smith & Mitchell, 2020). On top of that, the province of British Columbia authorised the UNDRIP in 2017 (Curran, 2019). However, the most hopeful progression was the ratification of Bill C-15 on 16 June 2021, about the UNDRIP Act, which became official legislation a few days later, on National Indigenous Peoples Day, June 21st (Department of Justice, 2021). The Government of Canada writes that “[the] Act creates a lasting and action-oriented framework to advance federal implementation of the UN Declaration in consultation and cooperation with Indigenous peoples” (Government of Canada, 2021). The Act required the state to develop an Action Plan to ensure concrete implementation of the UNDRIP's aims. Last year, the state published this Action Plan, again written in collaboration with representatives of the IPs in Canada (Government of Canada, 2023a). With the help of IPs' representatives, the government has to report annually to the parliament about the progress in the rollout of the UNDRIP Act (Government of Canada, 2024a). These annual reports are in practice self-evaluations, and the Act has only been authorised in 2021.

2.2 Land at the Core of the Indigenous Identity

A scientific attempt to evaluate the progress of Indigenous rights protection in Canada was made by Smith and Mitchell (2020). They developed a framework to examine the degree of adherence to the UNDRIP. In this framework, they focused on three factors: 1) Free Prior and Informed Consent (FPIC), 2) self-governance and self-government, and 3) land and natural resource rights. They chose to examine these three because, according to them, they are most influential on IPs' self-determination and land rights, the first concerns of IPs.

Many sources confirm Smith's and Mitchell's (2020) outlook on the importance of self-determination and land rights. Claeys et al. (2022) write that despite the variety of where IPs come from and their cultures, almost all Indigenous communities have a solid connection to their ancestral lands, going beyond the capitalistic worth that most Western societies focus on. Instead, Claeys et al. (2022) argue that Indigenous relationships with their territories greatly influence their whole identity, including, but not limited to, their culture, spirituality, social norms and values, and language. Some examples of sources about Canadian IPs also confirm the importance of self-determination for their survival. The Cree Nation, for instance, stated: “What You Do to Eeyou Istchee (Our Land), You Do to Eeyouch (Our People)” (Nishiiyuu Council of Elders, 2021, p. 1). Furthermore, a case study on the Yellowknives Dene First Nation's adolescents in the Northwest Territories showed that their relationship with the land was by far the most influential social factor on their health (Lines et al., 2019).

2.3 Research Gap and Relevance

Regrettably, sources indicate that Canada is particularly lagging in the area of Indigenous land rights. The UN Human Rights Council Special Rapporteur on the Rights of Indigenous Peoples published a report on the situation in Canada (Calí Tzay, 2023). Calí Tzay, the first ever elected Indigenous person in the UN,

commanded Canada to hold off any resource extractive projects on Indigenous lands that had not received consent from IPs yet and to remove any existing legal barriers to the effective exercise of Indigenous self-government. The World Report from Human Rights Watch (2024) writes about Canada's endorsement of the contentious Line 5 pipeline, which goes through the territories of over 40 Indigenous communities. The report also depicts how the Canadian government casted aside the wish of the Assembly of First Nations for more consultation before publishing the UNDRIP Act. A pertinent question arises from this poor safeguarding of Indigenous land rights and self-determination. Namely, how is it possible, after all these years of reconciliation efforts, national laws and international pressure from the UNDRIP that Canada is still falling massively behind on land rights' protection for IPs?

When seeking answers from the academic community on this question, one comes across a few studies. Case studies zoom in on a specific Indigenous community's involvement in a conflict about their land rights (e.g., Temper, 2019a). Additionally, case studies discuss land disputes about one specific land development project that affects one or more Indigenous communities (e.g., Hunsberger & Awâsis, 2019). Moreover, some articles on Canada's conformity to legal frameworks impact IPs' land rights (e.g., Tsuji, 2022). However, these studies are all case-specific. They cannot provide insights that apply to all land conflicts concerning Indigenous communities in Canada. Thus, this scattered information makes it difficult to answer why the state fails to protect IPs' land rights.

To radically improve the policies, laws, and implementation methods of the UNDRIP Act and the Action Plan regarding land rights advocacy, one must address the roots of these land conflicts and identify overarching patterns. This is because the centuries-old oppression of Indigenous Peoples (IPs) in land conflicts involves complex systemic processes. Nygren and Wayessa (2018) argue that these processes are not simply the state acting as "the man behind the curtain" but involve intricate mechanisms of exclusion and intersectional marginalisation. A comprehensive overview of land conflicts could provide valuable insights into these complex patterns. As the Government of Canada (2023a) indicated, the UNDRIP Act and Action Plan are not static documents. Consequently, IPs, scholars, policymakers, government officials, and other relevant stakeholders could use these independent scientific insights to better evaluate the progress in Indigenous self-determination and land rights acquisition.

Another crucial reason to protect Indigenous land rights and self-determination that IPs have been outstanding stewards of nature and biodiversity on their ancestral lands for centuries (e.g., Brondízio et al., 2021; Reid et al., 2022; Robinson et al., 2021). Additionally, scientific literature shows that IPs use their Indigenous Knowledge Systems (IKS) to enhance their climate adaptation strategies, demonstrating remarkable resilience (e.g., Cameron et al., 2021; Fajardo et al., 2021; Ford et al., 2020; Petzold et al., 2020). A statistic that indicates their sustainable way of living is how Indigenous lands' carbon emissions levels are about ~73% lower than non-Indigenous lands (Robinson et al., 2021). If IPs would only inhabit a very small and unimportant part of the Earth, they wouldn't play such a significant role in combatting climate change. However, despite IPs only equating for ~6.2% of the total global population (Brondízio et al., 2021), they inhabit ~40% of the world's protected areas (Garnett et al., 2018). The urgency that IPs

should be in charge and own their ancestral lands, increases even more if you look at the Synthesis Report of IPCC that reports how the worldwide mitigation and adaptation activities are highly deficient thus far (2023, p. 23). There is a trend in the academic community to learn from IPs and their IKS, to find other climate mitigation and adaptation solutions and consequently make recommendations to policymakers (e.g., Brondízio et al., 2021; Lewis et al., 2020). Lastly, there are studies such as Reed et al. (2022) that argued how environmental policies can only be truly successful if Indigenous land rights are safeguarded.

2.4 Research Design of Qualitative Literature Review

Following the described research topic, its research gap, and the relevance of filling it, this study intends to get a state-of-the-art understanding of the land conflicts between Indigenous communities in Canada and opposing actors in Canada. By opposing actors, we mean anyone involved in land conflicts with IPs, whether they are the government, a company, or a different stakeholder. To attain this objective, the study formulated one overarching research question:

What is the state of the art of land conflicts concerning the Indigenous communities in Canada?

To be clear, the state of the art here refers to the period from 2007 until now. The study chose this timeframe as the UNDRIP was accepted in 2007, an essential development in acknowledging Indigenous rights. Hence, the study will mainly analyse conflicts between 2007 and now.

To answer the main research question, the study had a few sub-questions to guide the data analysis:

Sub-questions:

1. Which Indigenous communities and other actors have been involved in these land conflicts?
2. Where in Canada and when have these land conflicts occurred since 2007?
3. What systems, mechanisms and actions do the Indigenous communities and opposing actors use in these conflicts to advocate for their positions?
4. What are the consequences of these land conflicts for Indigenous Peoples?

This study performed a qualitative literature review based on the systematic literature review (SLR) method. The report is structured as follows. First, the study introduces the key concepts and critical theories that support this research in the theoretical framework. Then, the application of the SLR method is described in detail. Chapter 5, the results chapter, is divided into four sections. Section 5.1 answers sub-questions 1 and 2, thus providing the characteristics of the land conflicts across the dataset. Section 5.2 discusses the systems, mechanisms and actions used by the opposing actors of the IPs, and section 5.3 those of the IPs themselves. Section 5.4 delves into the consequences of the IPs. After the results, the chapter follows the discussion, conclusion, and contextual exploration.

3 Theoretical Framework

This chapter discusses the concepts and theories of the theoretical framework. First, it delves into the concepts that need to be defined as they are the “pillars” on which this research is built. Next, it explores the literature on environmental justice (EJ) and the developments of EJ theory frameworks, which are then compared and evaluated. The result is an Indigenous Environmental Justice (IEJ) framework that guides case studies and analyses of land conflicts involving Indigenous communities in Canada.

3.1 Pillars of the Study

One by one, the pillars, indicated in **bold**, will be defined in this section. The main subject of this research is **Indigenous Peoples (IPs)** who reside in the area that is now called Canada, a state founded through **settler colonialism**. The study analyses **land conflicts** between Indigenous peoples and other parties. As mentioned in the introduction, IPs have three global priorities in these land conflicts to defend their right to **self-determination: 1) Free, prior, and informed consent; 2) self-government and self-governance; and 3) land and natural resource rights**.

Because there is no binding definition of **Indigenous Peoples** in international law, countries, international organisations, and IPs created their conditions (UN Department of Economic and Social Affairs, n.d.). Special Rapporteur Mr. Martínez Cobo (1981) was the first person working for the UN who attempted to define IPs in his study on the discrimination towards them. He laid the groundwork for the aspects that should be considered when defining IPs. Martínez Cobo (1981) suggested that the most critical factors that enable IPs to keep their Indigenous identity alive are not leaving (all) their ancestral lands, having the same lineage, and actively upholding their cultures, religions and languages. According to him, Indigenous communities believe that they are distinctive compared to the colonial settlers who live on their lands. This self-identification as Indigenous is the most defining aspect of a community but also on a personal level when it comes to claiming Indigenous identity, according to Martínez Cobo (1981). Erica-Irene Daes, who led the Working Group on Indigenous Populations following the Martínez Cobo study, confirmed his statement in her report called *Indigenous Peoples and their Relationship to Land* (2000). Scientists also attempted to define IPs. For example, Rogers et al. (2013, p. 238) the term Indigenous peoples describes cultures that originate from or have strong connections to a specific region. It particularly pertains to groups with deep ancestral and spiritual ties to lands that were subsequently colonized by settler societies. A study about IPs in Canada specifically, described IPs as the communities that governed regions in present-day Canada prior to the arrival of European settlers (Curran, 2019).

It is also essential to delineate what (**settler**) **colonialism** entails precisely, as the remaining settler colonial structures to date are from the roots of land conflicts involving IPs in Canada. Scott (2015) describes colonialism as establishing systems of government and jurisdiction by more economically developed countries (MEDCs) in other (areas of) less economically developed countries. Often, it also entailed founding settlements in these new-found lands. Generally, this went hand in hand with acquiring resources for the settlers and their countries overseas. Scott (2015) continues by sharing how colonialism started in

the 15th century in the Americas by the United Kingdom, France, Portugal, Spain, and the Netherlands and spread to all other continents. Veracini (2011) has a similar outlook, as he construes colonialism as the phenomenon in which external entities attempt to take control of an already established society in terms of, for example, politics, governance, culture, and religion. Dei & Kempf (2006) add that even when colonisers leave the land they once colonised, their values and societal mechanisms can continue to be dominant in the respective society of that land. The definitions of colonialism and settler colonialism overlap but are not the same. Veracini (2021) defines settler colonialism as “a specific mode of domination where a community of exogenous settlers permanently displace to a new locale, eliminate or displace indigenous populations and sovereignties, and constitute an autonomous political body” (p. 2412). Thus, the main difference between colonialism and settler-colonialism is that colonialism is more of an action to colonise an area, while settler-colonialism is more of a long-term phenomenon where the settlers permanently take over control of land, government, jurisdictions, and everything else that concerns the native society of that given land.

As mentioned in the introduction, settler-colonial structures in Canada have caused many **land conflicts** to date. Land conflicts are disputes with two or more actors that have different opinions and perspectives on matters such as who owns the land rights of a specific area, who administers the land and how it is administered, who can prohibit other actors from entering the land, etc. (Wehrmann, 2008). Land conflicts always have negative impacts, Wehrmann (2008) argues, affecting the participating and uninvolved actors, even when dealt with as amicably as possible. However, Wehrmann (2008) also claims that land conflicts contribute positively to society, as they are the foundation for change: for example, change in governance, law, relationships, and power dynamics.

As we concluded earlier, these land conflicts between Indigenous communities and other actors usually concern the IPs’ fight for self-determination. In essence, self-determination concerns a society’s desire and right to determine what type of government and state they want to be in relation to other states (Danspeckgruber & Gardner, n.d.). In the context of IPs, Mörkenstam (2015) argues that self-determination should have more of a procedural perspective: recognizing Indigenous peoples' right to self-determination should involve treating them as equals to nation-states, effectively acknowledging their sovereignty. If Indigenous communities lack a strong legal basis to articulate self-governance in their native languages and to arrange their interactions with countries according to their own conditions, the colonial history of violent conquest and domination might persist (Mörkenstam, 2015, p. 3).

The right to **Free Prior and Informed Consent (FPIC)** is one of the three main priorities for IPs in the UNDRIP in their pursuit of self-determination (Smith & Mitchell, 2020; Office of the High Commissioner for Human Rights, 2024, article 18 & 19). FPIC is a measure to safeguard human rights, and Indigenous rights specifically, that must be implemented when any party wants to manage and take away lands inhabited by Indigenous peoples (Tomlinson, 2019). The Expert Mechanism on the Rights of Indigenous Peoples (2018, p. 5) writes in their report that FPIC gives IPs three different rights: the rights to be involved in decision-making, to engage actively, and to possess their lands, territories, and resources. Hence, when

one or more of these rights are not fulfilled, FPIC is not accomplished.

The second priority on top of the list for IPs in the UNDRIP is the right to **self-government and self-governance** (Office of the High Commissioner for Human Rights, 2024, Articles 3, 4, 5 and 20). Kraljić & Stolz (2010) argue that a community needs to tick the boxes of four features to be able to form self-government: 1) The community's land needs to be bordered; 2) the community needs to determine what type of self-government it wants to employ (e.g., having own municipality or delivering local council to state governments) and the duties that come with it; 3) the community members are solely accountable to ensure the implementation either by taking up the duties themselves or voting for representatives; and 4) the community needs to receive material and financial support from the state government to carry out the predetermined duties.

The final priority of IPs concerns acquiring **land and natural resource rights** (Office of the High Commissioner for Human Rights, 2024, Articles 26, 27, 28, 29, and 32). These UN articles involve everything related to these rights, from land possession to land management and conservation to the prevention of environmental pollution.

3.2 Development of an Indigenous Environmental Justice Lens

Now that the study has defined the pillars, this chapter moves forward to developing an Indigenous Environmental Justice lens.

3.2.1 Origin of Environmental Justice

Bullard (1993) describes how the term environmental justice (EJ) came into existence in the 1980s in the United States. Pollutive extractive industries systemically violated environmental rights by planting hazardous waste facilities in the living areas of often Afro-American communities. These marginalised minorities created a national EJ movement fuelled by grassroots activism. Later in Bullard's paper (1993), he defined EJ as follows: all humans have the same environmental rights and deserve the same safeguarding of those rights.

However, environmental justice is a complex term that is not easily understood and theorised (Atapattu et al., 2021). The movement in the 1980s incited academics from all kinds of disciplines to start researching environmental justice. Moreover, the initial focus on hazardous pollutants broadened to all sorts of environmental injustices over the years, ranging from resource extractivism to unfair dispersion of the effects of climate change (Holifield et al., 2018).

3.2.2 Distributive, Procedural, Social and Corrective Justice

One of the oldest and most well-known EJ theories divided environmental justice into four sub-forms: distributive justice, procedural justice, social justice, and corrective justice (Kuehn, 2000). Distributive justice focuses on the equal distribution of resources and opportunities. Procedural justice concentrates on whether this allocation process is fair rather than the distribution itself. The third sub-form, social justice,

calls upon the need for an intersectional lens which combines the influence of all sociological parameters such as ethnicity, gender, age, socioeconomic background, and race. Corrective justice aims at lawfully punishing actors who violate environmental laws and helping those who suffer from the violation. Kuehn's theory (2000) has since then received many critiques from other environmental justice researchers who claim that environmental conflicts often do not accurately conform to those four sub-forms of justice (e.g. Atapattu et al., 2021; Holifield et al., 2018; Menton et al., 2020; Pellow, 2018). Since then, many academics have suggested improvements to the mainstream EJ framework.

3.2.3 Critical Environmental Justice (CEJ) Framework

Pellow (2018) shares four critiques and subsequent recommendations in his Critical Environmental Justice (CEJ) framework to improve the thoroughness of EJ research. He points out that EJ research too often focuses on just one or two drivers of inequality. He recommends a more intersectional approach, as inequalities and disbalance in power can overlap in all combinations. Next, he advocates for a focus on multiscale instead of single-scale EJ research. This is vital to grasp better the intricate spatial and temporal barriers, enablers, results, and solutions to environmental conflicts. Third, he condemns that EJ research often focuses on improving the governance and jurisdictional systems in place. Instead, he pleads the importance of acknowledging that these systems are often the birthplace of inequality and that EJ research should confront those systems rather than accept them. And finally, he argues that everyone, including often marginalised communities, is indispensable to each other. All humans are interconnected and thus need each other's solidarity and need to work together to fight for environmental justice for all.

3.2.4 Epistemic Injustice

Another addition to the mainstream EJ framework is the concept of epistemic injustice, introduced by Fricker (2007). Atapattu et al. (2021, p. 10) claim: [epistemic injustice encompasses] "the failure of Western law and policy to recognise and respect the lived experiences and world views of subaltern communities, particularly Indigenous peoples." Fricker (2007) depicts two types of epistemic injustice: hermeneutical and testimonial injustice. Hermeneutical injustice appears when there is a systemic lack of awareness and understanding of specific social experiences or concepts, which causes inequitable deprivations for certain people. For instance, someone might work in an environment with, according to many other countries, inhuman labour conditions that exploit people. However, this person's country does not view this as exploitative. Testimonial injustices develop when the integrity and reliability of someone are questioned because of the projection of biases and prejudices on this person. An example of testimonial injustice could be that someone with an Asian background does not get a job because of the prejudices that the interviewer has about that ethnicity. Atapattu et al. (2021) argue that epistemic justice should be part of the EJ framework when zooming in on Indigenous communities. To avoid epistemic injustice, policymakers and scientists should thoroughly investigate how much they push Western perspectives and knowledge on IPs. IPs might view and experience an event entirely differently because of their outlook on life and their insights from IKS, or even worse, suffer from Western policies and laws.

3.2.5 Indigenous Environmental Justice (IEJ) Framework

Some scholars worked on EJ frameworks specifically catered towards IPs. For instance, Booth (2017) compared and evaluated EJ theories on race, place and Indigeneity. The race-based EJ theory that Booth describes matches the origin of EJ theory in the United States, where having a certain race and socioeconomic status was connected to living in polluted areas due to resource extraction and other types of land development projects. Booth (2017) explains that Canada first copied the race-based EJ but then switched focus to the influence of geographic and socio-economic factors, such as the most significant economic sectors within an area (e.g., agriculture, resource extraction). Finally, Booth (2017) argues that since a lot of land conflicts in Canada involve IPs, the EJ framework should be further specified for this settler-state. The outcome was a combination of race- and place-based EJ, called Indigenous environmental justice (IEJ). However, on top of the combination of race and place, Booth's (2007) IEJ framework also had eye for the consequences of environmental injustices like the eradication of traditional Indigenous resource practices.

Another author who contributed to the IEJ theory was McGregor (2018). She was critical of the literature on IEJ theory thus far, as she was not convinced that merging other EJ theories would lead to an IEJ theory that legitimately represented IPs. She voiced her concern about the recurrent trend amongst scholars researching IEJ that are in danger of offending or eroding IKS, Indigenous cosmologies and methodologies because of their Western academic lenses, which has similarities with the epistemic justice theory of Fricker (2007). McGregor (2018) argues that IEJ can only be accomplished if its foundation is entrenched in IKS, pointing out that the injustices that IPs still experience are due to what the Western knowledge systems overlooked.

The different developments of the mainstream EJ framework and the narrowed-down IEJ theory provided different lenses on what environmental justice means and what factors influence whether it is reached for Indigenous communities. All lenses considered, this research will try to be as intersectional as possible when analysing results later in the discussion. In practice, this entails that both the mainstream factors (e.g., procedural, distributive and race-based justice) are included, but also the more abstract lenses of Fricker (2007) and McGregor (2018) that use a helicopter view to look at who decides what (in)justice encompasses and which knowledge systems count in the fight for IEJ.

4 Methodology

To recap, the central research question was: *What is the state of the art of land conflicts concerning the Indigenous communities in Canada?* Based on this question, the study developed several sub-questions:

- 1) Which Indigenous communities and opposing actors have been involved in these land conflicts?
- 2) Where in Canada and when have these land conflicts occurred since 2007?
- 3) What systems, mechanisms and actions do the Indigenous communities and opposing actors use in these conflicts to advocate for their positions?
- 4) What are the consequences of these land conflicts for Indigenous Peoples?

To answer these sub-questions and the central research question, the study conducted a Systematic Literature Review (SLR) (Pickering & Byrne, 2014; Pickering & Morrison, 2014, p. 336-344). The method consists of three phases, adopted from Pickering and Byrne (2014) (see **Figure 1**). **Phase A** (steps 1 to 5) concerns the selection of relevant literature. **Phase B** (steps 6 to 10) is about structuring and categorising the chosen literature of **phase A**. **Phase C** (steps 11 to 15) involves investigating the literature to get answers to the research questions.

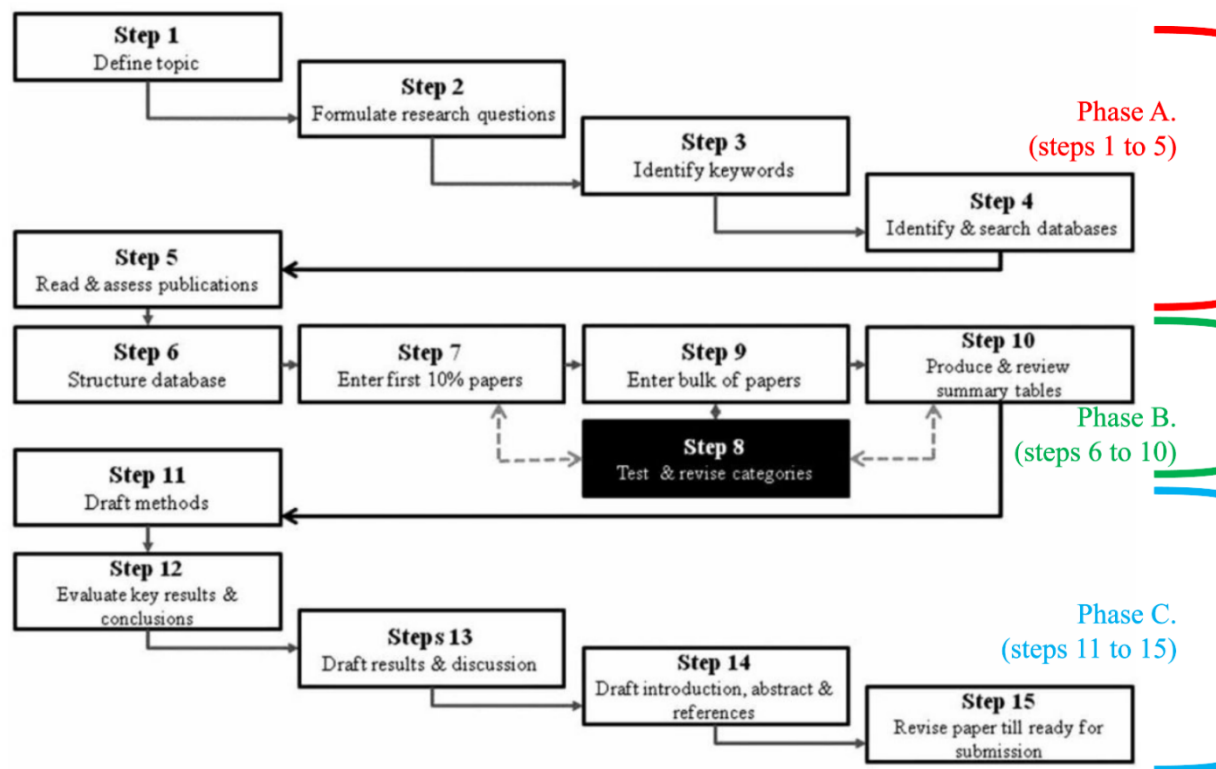


Figure 1 The SLR Method. The figure originally comes from Pickering and Byrne (2014, p. 539), with a small change by indicating the phases for this study.

This chapter explains why this study chose to use SLR and the selected online literature databases. Then, the chapter goes on to the first round of literature selection and categorisation (i.e., phases A and B). Based on the first round, the researcher developed the objectives and research questions about land conflicts in Canada. Next, the methodology discusses the **second round** of phases A and B, which led to this project's final narrowed-down literature database. Finally, this chapter illustrates how phase C took place: the analysis and coding of the literature to acquire results.

4.1 Benefits of the SLR method

The researcher used SLR for the literature review for a few reasons. The study needed a methodological approach like SLR that allowed for non-linearity, as this allows researchers to return to phase A, the literature collection, and phase B, structuring the chosen literature, if necessary.

This qualitative literature review would be more straightforward to replicate for other researchers thanks to the distinctly separate steps of the relatively unambiguous SLR method. The clear structure of SLR made it less complicated to situate oneself in the state of the art and to develop recommendations for future research. Furthermore, the SLR method allows for an easier-to-understand argument in the report than a narrative literature review.

The final considerable advantage of the SLR method is the opportunity to include papers with different research methods, which is especially suited for transdisciplinary research. Since this study merges multiple subjects, such as environmental policy, environmental justice, and sustainable development, it fits perfectly.

4.2 Literature Databases

The study used three databases for the literature search: Scopus, Mendeley and Google Scholar. Scopus operated the search strings, and Mendeley and Google Scholar were supplementary search engines. Moreover, the researcher did manual searches by checking the bibliographies of crucial literature found with the search strings deployed in Scopus. The literature for this study was saved and stored using the reference management software Zotero.

4.3 First Round of Phases A & B: Literature Collection and Categorisation

4.3.1 First Round: Keywords and search string

The process of selecting the literature started with a broad and drafty research question: *What are the environmental injustices that Indigenous communities around the globe experience?* The researcher performed a 'trial and error' search using Mendeley based on this wide-ranging scope. This led to the inclusion of the first few studies in the Mendeley database, enabling the researcher to acquire a basic understanding and fundamental jargon of the field. Based on this initial literature search, the study determined that the primary keywords "Indigenous", "climate", "injustice", and "governance" were imperative to collect the most suitable studies. **Table 1** shows an example of the keyword Indigenous and the string of synonyms and related concepts that the study used in the search string (see 9.1

Appendix A. Keywords for all the synonym strings).

Table 1 Synonyms and related concepts of “Indigenous” used in literature search

Basic keyword	Synonyms and related concepts
Indigenous	“Indigeniz*” OR “Indigenous communit*” OR “Indigenous group*” OR “Indigenous people*” OR “Indigenous knowledge” OR “Indigenous science” OR “Indigenous data” OR “Indigenous right*” OR “Indigenous movement*” OR “Indigenous manag*” OR “Indigenous health” OR “native people*” OR “native commun*” OR “native knowledge” OR “traditional knowledge” OR “traditional ecological knowledge” OR “traditional environmental knowledge” OR “traditional science” OR “primitive* people*” OR “primitive* communit*” OR “primitive* knowledge” OR “subaltern people*” OR “subaltern communit*” OR “subaltern knowledge” OR “subaltern science” OR “aboriginal*” OR “maori” OR “inuit” OR “tribe*” OR “tribalism”

The next step was to develop the search string. Scopus operated the main search string (see the entire search string in 9.2.1 Search String of the First Round). The summarised search string was: **“Indigenous” AND “climate” AND “governance” AND “injustice”**. It returned all publications containing at least one term from each of the four keywords’ synonym strings, as visualised in **Figure 2**.

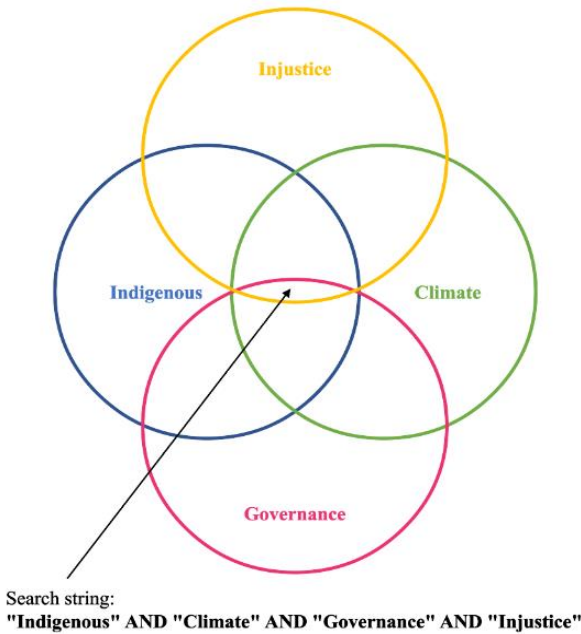


Figure 2 Visualisation of the search string of the first round

4.3.2 First Round: Literature Selection

The study developed inclusion and exclusion criteria for the article's title, abstract and keywords to determine which literature to include in the SLR. **Table 2** shows a selection of them This study included articles from 2007 onwards, as the General Assembly adopted the UNDRIP in September 2007, which was, as mentioned in the introduction, a critical turning point globally for Indigenous communities (Office of the High Commissioner for Human Rights, 2007).

Table 2 Inclusion and exclusion criteria to assess and choose literature in the first round of phases A and B

Inclusion criteria	Exclusion criteria
Open access	No open access
Published between 2007 and now	Published before 2007
Document types: articles, reviews, books, book sections	Document types: notes, conference papers, editorials, letters, errata, short surveys, retracted literature
Language: English	Language: anything but English
Geographic area: the entire planet Earth	Geographic area: n/a
(One of) the primary subject(s): Indigenous peoples	<u>Not</u> (one of) the primary subject(s): Indigenous peoples
<ul style="list-style-type: none"> Negative human-induced environmental impacts related to climate change (e.g., climate hazards, biodiversity loss, floods, droughts, deforestation, etc.) Marginalization of Indigenous peoples in general and/or related to the environment Health directly linked to impacts of climate change or drivers of marginalisation General Indigenous Knowledge Systems (IKS) and/or related to the environment Food in a social context: linked to equity, access, and/or livelihood Environmental education (e.g., related to climate change mitigation, adaptation, vulnerability, resilience, sustainability, sustainable development, etc.) Mobilisation efforts of Indigenous peoples 	<ul style="list-style-type: none"> Not related to climate change at all Energy (in)justice (e.g., mining, hydroelectric dams, pipelines, wind energy, etc.) Health linked to specific diseases/disorders/symptoms/problems that have no direct link to adverse impacts of climate change <ul style="list-style-type: none"> Body fat profiles Access to and utilisation of health services Smoking Cancer Asthma Kidney disease Tuberculosis Diabetes Obesitas Health practitioners from Indigenous communities Local knowledge but not from Indigenous communities Indigenous Knowledge Systems unrelated to the environment, injustice, marginalisation Food in a technical context: systems, landscapes, production, supply chain management of food Migration (indirectly) related to negative human-induced impacts on the environment related to climate change Education unrelated to the environment Family structures and division of roles in Indigenous communities

After applying all in- and exclusion criteria on the title, abstract and keywords of articles, the study was left with 256 records. See **Figure 3** for the PRISMA statement of the first round. The search string in Scopus contributed 154 studies. The remaining 102 studies were found through the trial-and-error search beforehand in Mendeley and by checking the bibliographies of studies found with the search string.

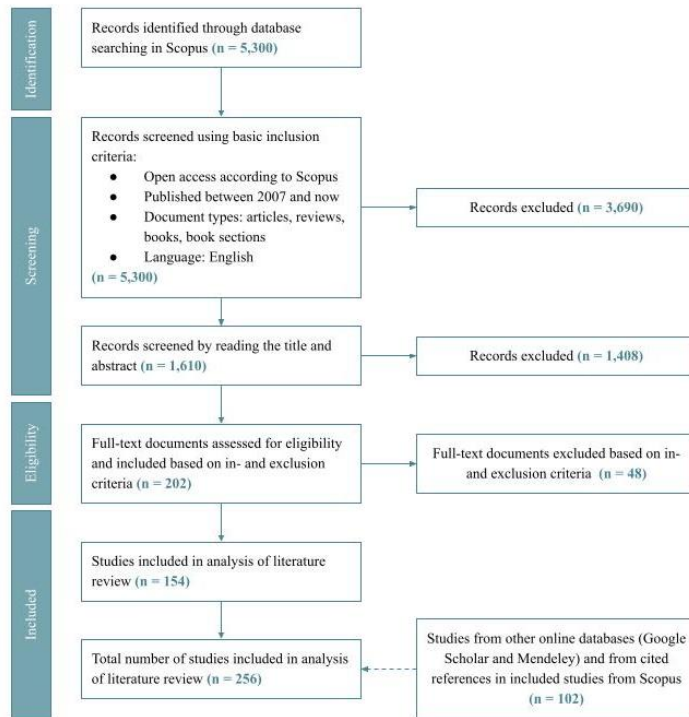


Figure 3 PRISMA statement (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) of the first round

After that, the researcher structured the 256 documents by assigning each piece of literature “tags” in different categories. For example, if one is interested in case studies about African IPs, one should choose the tags “case study” and “Africa” to filter out the relevant literature. First, approximately the first 10% of the literature got tags. Then, the study tested the categories and tags by trying to find suitable literature using these. Afterwards, the remaining literature got assigned tags, too.

4.4 Second Round of Phases A & B: Literature Collection and Categorisation

What stood out from this first round of literature collection and categorisation was the fact that 136 out of 256 records were case studies. The spread of case studies was roughly equal across continents, considering their size. The researcher wanted to narrow down to a country that voted against adopting UNDRIP in 2007, leaving Australia, Canada, New Zealand and the United States to choose from. The study chose to zoom in on Canada as most of the case studies in North America concerned IPs in Canada. To narrow the study even more, the researcher decided not to focus on environmental injustices in general but on land conflicts between IPs and opposing actors. The introduction chapter already explained the relevance of researching land conflicts. Then, she defined the final research question and sub-questions.

4.4.1 Second Round: Keywords and search string

The study needed to perform a second round of literature selection and categorisation to obtain all literature on land conflicts in Canada. This ensured that the literature database would present a comprehensive overview of the field based on search strings 1 and 2. For the second search string, the study needed to use the keywords “Indigenous” and “environmental justice” again and added the keywords “land conflict” and “Canada”. **Table 3** presents the keyword “land conflict” and the string of synonyms and related concepts that the study used in the search string.

Table 3 Synonyms and related concepts of “land conflict” used in literature search

Basic keyword	Synonyms and related concepts
Land conflict	"land conflict*" OR "land grab*" OR "agrarian conflict*" OR "land right*" OR "land management" OR "land heritage" OR "land relationship" OR "land dispossession" OR "dispossession of land*" OR "settler colonialis*" OR "land coloni*" OR "private property" OR "property grab*" OR "stolen land" OR "territor*" OR "territory grab*" OR "unceded territor*" OR "unceded land*" OR "land claim*" OR "land question*" OR "land acquisition" OR "land theft" OR "resource extract*" OR "extractivism" OR "usurpation" OR "usurped land*" OR "land appropriation" OR "land expropriation" OR "land seizure*" OR "land encroachment" OR "forced eviction*" OR "resource grab*"

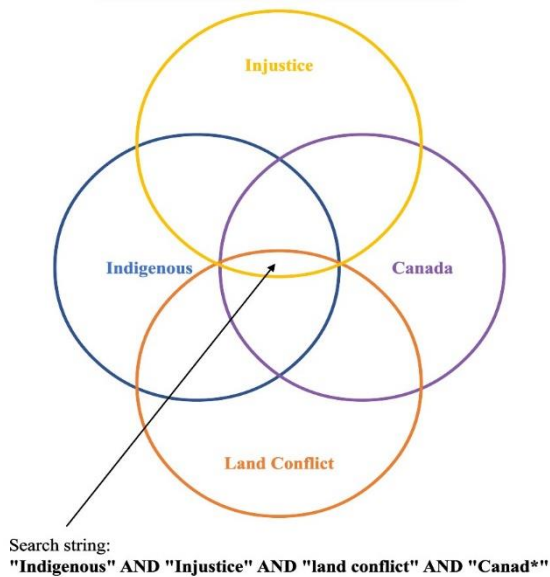


Figure 4 Visualisation of the search string of the second round

The second search string (see the entire search string in 9.2.2 Search String of the Second Round) returned all publications containing at least one term from each of the four keywords’ synonym strings, as visualised in **Figure 4** summarised search string was: **“Indigenous” AND “injustice” AND “land conflict” AND “Canada”**. It returned 621 publications. The following paragraph discusses how the study selected suitable records for this study's objectives and research questions.

4.4.2 Second Round: Literature Selection

Basic in- and exclusion criteria from the first round were applied: to have open access, published between 2007 and now, only certain document types, and written in English. The second step was to read the titles and abstracts of the 160 remaining publications and determine whether they met the in- and exclusion criteria of the first round; however, now the geographical location was merely Canada.

Then, there were 71 records left from the narrowed-down second search string. Before the researcher started the eligibility check, she added the studies from the first round's database that complied with the abovementioned criteria. Next, the researcher only selected the case studies from these 99 records that (also) discussed land conflicts. At the end of the selection process, the researcher was left with 18 case studies to use for her qualitative data analysis about land conflicts concerning Indigenous communities in Canada.

Figure 5 below summarises the literature selection in the second PRISMA statement. Finally, she structured the case studies according to the categories and tags she developed in the first literature selection and categorisation round. The next and final paragraph of the methodology will discuss how the study analysed the case studies.

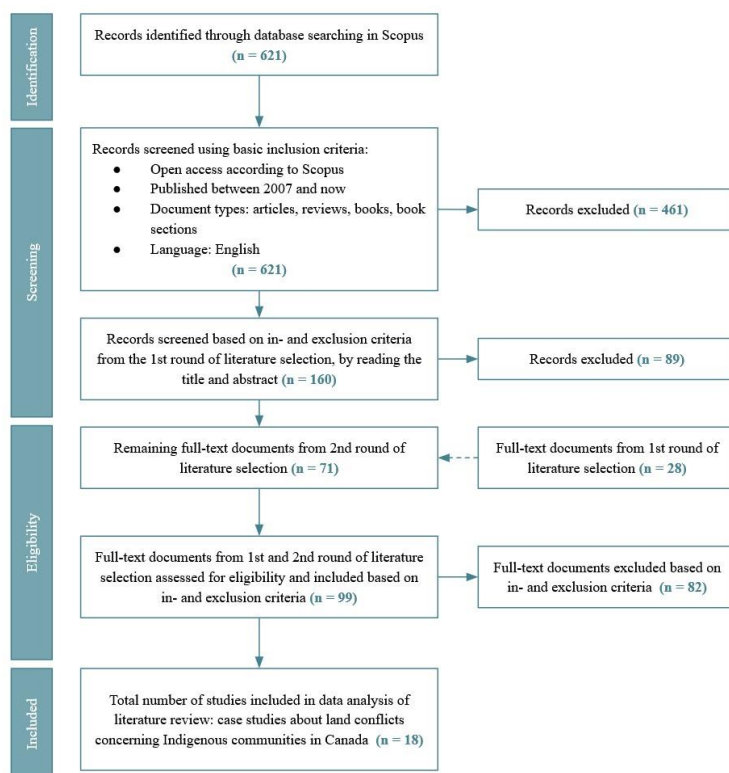


Figure 5 PRISMA statement (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) of the second round

4.5 Phase C. Analysing the data

Although **phase A** (literature selection) and **phase B** (literature categorisation) of the SLR method have very straightforward and duplicable steps, **phase C** (data analysis) was not as helpful- and insightful for this

qualitative study. Namely, in publications where authors advocated for and explained the SLR method (e.g., Pickering & Byrne, 2014; Mengist et al., 2020), they mainly discussed quantitative data analysis techniques. However, because of the transdisciplinary nature of the SLR method, using qualitative data analysis techniques is possible (Pickering & Byrne, 2014; Mengist et al., 2020). Therefore, the study shaped [phase C](#) to its needs by implementing part of Bingham's (2023) qualitative data analysis approach.

According to Bingham (2023), it is vital to establish a specific and transparent data analysis approach to allow for reliable and thorough qualitative research. She also argues that being open about the outcomes and the procedure that led to them will strengthen the coherence and validity of the results. Bingham (2023) developed a five-phase process for qualitative data analysis, where researchers can use one or several phases for their methodologies. The first two phases are about deductive coding, the third and fourth discuss inductive coding, and the final one is relevant to de- and inductive coding approaches.

This study chose to use the inductive approach, which is a bottom-up approach. One starts with specific observations and then tries to discover common themes across the data set. The goal is to conclude from these observations and themes that might contribute to a general theory. The study's objectives revolved around understanding the state-of-the-art land conflicts concerning IPs in Canada, and it did not examine a particular approach or argument based on a hypothesis. Hence, based on the theory behind deductive against inductive reasoning, the study chose to use the inductive approach from Bingham (2023).

The inductive approach consisted of different steps in a specific order. Before starting with the analysis of the case studies, the researcher created an Excel document with the case studies listed per row and the sub-questions listed per column. Excel had two sheets of this system, each with its purpose. The first sheet was the “Summary” sheet and served as the first step of the inductive approach. Here, the researcher systematically summarised the data per sub-question for each article. These summaries of the case studies gave a more in-depth understanding.

Then, the study moved on to the second sheet, called the “Coding” sheet. The purpose of this sheet was to code the data of the previous “Summary” sheet, utilising different types of inductive coding. First, the study used the open coding strategy. This essentially entails creating and applying codes as one goes over the gathered data of one's research (Bingham, 2023). In practice, this meant that various codes were developed in the Excel sheet for each column with its sub-question. When all case studies were summarised and went through the open coding phase, the research moved on to pattern coding. In this phase, the goal was to work out the results of the qualitative data analysis. Bingham (2023) defines pattern coding as finding common themes and patterns across the collected data. Practically, this boiled down to evaluating the created codes for each sub-question in the open coding phase. This could, for instance, be done by merging codes that were too similar or developing more codes for a topic that had a much more considerable significance than realised during the open coding. Whilst pattern coding, the researcher started to recognise and evolve themes that gave the answers to the research questions and thus led to the results of this research.

5 Results

To recap, the central research question was: *What is the state of the art of land conflicts concerning the Indigenous communities in Canada?*

Based on this question, the study developed several sub-questions:

- 1) Which Indigenous communities and other actors have been involved in these land conflicts?
- 2) Where in Canada and when have these land conflicts occurred since 2007?
- 3) What systems, mechanisms and actions do the Indigenous communities and opposing actors use in these conflicts to advocate for their positions?
- 4) What are the consequences of these land conflicts for Indigenous Peoples in Canada?

The results chapter is structured according to the sub-questions. Section 5.1 shows the dataset's characteristics (time, location, involved parties). Sections 5.2 and 5.3 discuss which actions and mechanisms the opposing actors and the Indigenous communities used in the land conflicts. The results chapter ends with section 5.4, which discusses the consequences of land conflicts.

5.1 Characteristics of the Land Conflicts

The characteristics of the land conflicts (i.e., location, timeframe, Indigenous communities and opposing actors involved) are illustrated in **Table 4**. For some case studies there was no data available on the timeframes.

Table 4 Overview of the studies included in the data analysis with information about their characteristics

Study	Location	Timeframe	Indigenous communities	Opposing actors involved
1 – Atleo & Boron (2022)	1 British Columbia 2 Ontario 3 British Columbia 4 British Columbia	1 1700s till ~2020 2 1700s till 1990s 3 1960s till ~2004 4 no data	1 Nisga'a Nation 2 Haudenosaunee (or Six Nations / Iroquois) 3 Westbank First Nation 4 Wet'suwet'en	1 European settlers, provincial government 2 Dutch, French, English and American settlers 3 European settlers 4 no data
2 – Booth (2017)	British Columbia	No data	Dunne'za (Beaver), Cree	European settlers
3 - Castleden et al. (2017)	Nova Scotia	1700s, 1960s, 1990s	Mi'kmaq	English, national government
4 - Curran (2019)	British Columbia	~2007 till now	1.1 Okanagan Nation Alliance (Syilx peoples) 1.2 Nadleh Wut'en and Stellat'en First Nations 2.1 Tsleil-Waututh First Nation (Coast Salish Peoples) 2.2 Stk'emlúpsenc te Secwépemc First Nation 3.1 Cowichan Tribes (Coast Salish Peoples)	provincial government, federal government, national government

			3.2 Five First Nations of the Nicola Valley—the Coldwater, Lower Nicola, Nooaitch, Shackan, and Upper Nicola Bands	
5 – Datta & Marion (2021)	Saskatchewan	No data	Cree	Provincial government, national government, industries
6 - Dick et al. (2022)	British Columbia	~1770s till now	Kwakwaka'wakw, and Coast Salish	European colonisers, government
7 - Éthier et al. (2021)	Quebec	1871 till ~2020	Atikamekw	provincial government, federal government, national government
8 – Fayazi et al. (2020)	Quebec	No data	Mohawk	English and French settlers, regional government, provincial government, Federal government, national government, insurance companies
9 - Greaves (2016)	Québec, Yukon, Northwest Territories, Nunavut	No data	Inuit	provincial government, federal government, national government
10 - Hugill & Toews (2014)	Manitoba	1870 till 2014	Cree, Ojibwe, Métis Nation	municipality, federal government, provincial government, national government, missionary organisation
11 - Hunsberger & Awâsis (2019)	Ontario, Québec	1976 till 2017	Chippewas of the Thames, Aamjiwnaang, Mississaugas of the New Credit, Mohawk	federal government, national government, supreme court, industries/companies
12 - Nchet et al. (2021)	Québec, Newfoundland & Labrador	1975 till 2021	Innu	national government, industries/companies
13 - Nagai (2021)	British Columbia	1980s till now	Tsilhqot'in Nation	national government, federal government, provincial government, industries/companies, UN, court
14 - Nightingale & Richmond (2022)	Ontario	1850 till 2022	Anishinaabe	national government, industries/companies
15 - Nikolakis (2022)	Canada in general, British Columbia, Ontario, Manitoba, Saskatchewan, Yukon, Northwest Territories, Alberta, Arctic/Nunavut	1736 till 2022	Gitksan Nation, Wet'suwet'en Nation, Tsilhqot'in Nation, Haida Nation, Algonquin Nation	national government, federal government, provincial government, industries/companies
16 - Oliveira (2021)	1: British Columbia 2: Nova Scotia 3: Ontario	1: 2018 till now 2: 2020 3: 2020	1: Wet'suwet'en 2: Sipekne'katik First Nation 3: Pikangikum First Nation	1: Police, industries/companies, provincial government, elected Indigenous band councils 2: Provincial government, non-Indigenous fishers, state department 3: Court, provincial government
17 - Papillon & Rodon (2020)	1: Quebec 2: British Columbia	1: early 2000s 2: from mid-2010s onwards	1: Cree 2: Squamish Nation	1: government, industries/companies 2: Federal and provincial government, industries/companies
18 - Spiegel et al. (2020)	British Columbia	2018 till 2020	Tsleil-Waututh Nation	government, provincial government, industries/companies

The spread of case studies was not even (see **Figure 6**). By far the most case studies were taking place in British Columbia (9 studies). Ontario and Quebec had 5 and 4 case studies respectively. Almost all other provinces only had 1 or 2. There were no case studies located in the provinces New Brunswick and Prince Edward Island.

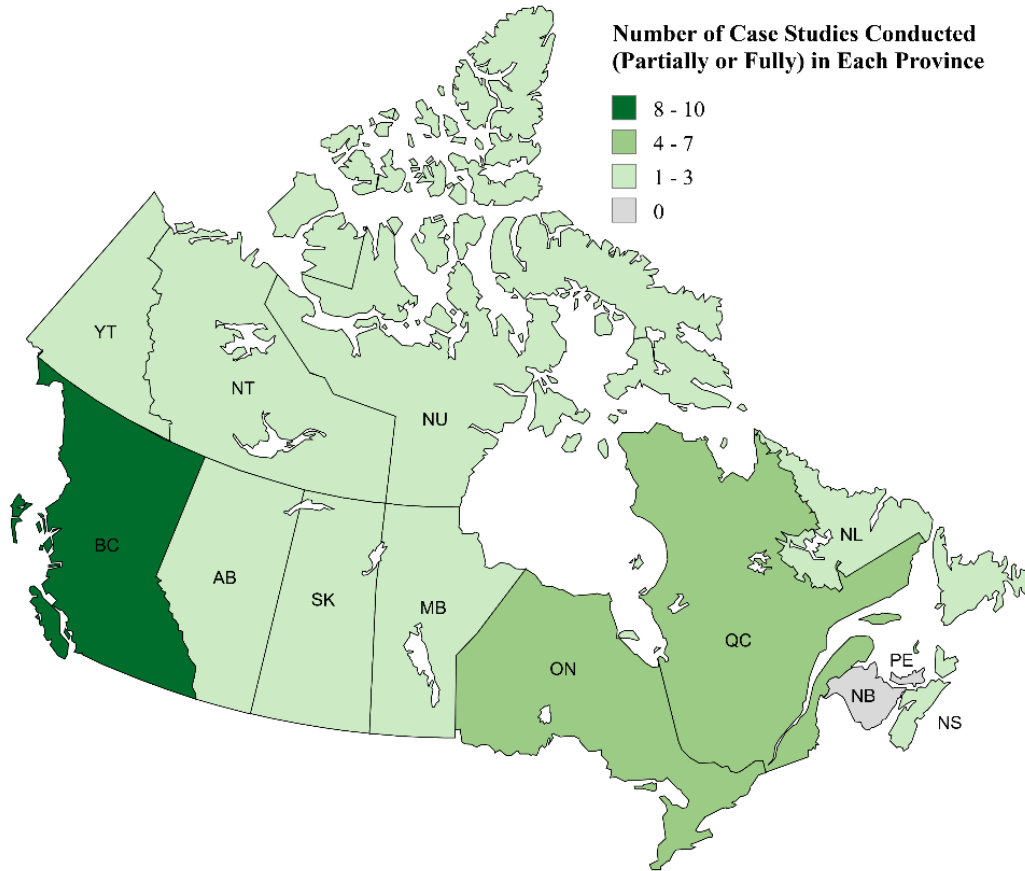


Figure 6 Map of Canada indicating the number of case studies conducted (partially or fully) in each province

5.2 Systems, Mechanisms and Actions Used by the Opposing Actors

Section 5.2 addresses the following sub-question: *What systems, mechanisms and actions do the opposing actors use to advocate for their perspectives and beliefs in these land conflicts?* The study found four themes across the dataset: 1) **Law, Legislature, and Policy Implementation**; 2) **Legal and Political Manoeuvres in Consultation Mechanisms**; 3) **Economic Tactics and Incentives**; and 4) **Cultural Assimilation and Environmental Neglect**.

5.2.1 Law, Legislature and Policy Implementation

The most obvious pattern within this theme was how opposing actors actively ignored and nullified Indigenous (land) rights (14 studies: e.g., Dick et al., 2022). Five studies discussed how colonisers enforced the terra nullius principle when arriving on the land they would rename Canada later (e.g., Atleo & Boron, 2022). This principle boils down to viewing land as deserted and thus free to be claimed by colonisers, even when IPs inhabited those lands. One study describes how land managed by IPs was not recognised as occupied because colonisers only regarded the implementation of Western views on land management as valid (Dick et al., 2022). Nevertheless, another article reported that Indigenous oral history was not considered credible evidence or source to prove Indigenous land claims (Fayazi et al., 2020).

A common way for opposing actors to challenge IPs in land conflicts was litigation (5 studies: e.g., Booth, 2017). Often, the state used these lawsuits to assert Canada's sovereignty over territories through land claim policies to get rid of or not grant Aboriginal titles (4 studies: e.g., Greaves, 2016). In some cases, the state extinguished Aboriginal titles from specific Indigenous communities indirectly by forming agreements with other IPs' overlapping land claims (Éthier et al., 2021). These overlapping land claims also strengthened the position of the opposing actors, as the state could exploit these disputes between Indigenous communities to weaken their resistance or negotiation positions.

Most land conflicts are (partially) about the enforcement of resource extractivist projects or another type of land projects in areas that IPs consider to be (part of) their ancestral lands (14 studies: e.g., Atleo & Boron, 2022). A hot topic in land rights and management negotiations was the land allocation policy. Namely, 11 studies discussed how land allocation decision-making was turned into a depoliticised administrative and juridical operation while neglecting IPs' rights (e.g., Curran, 2019). In Nikolakis' (2022) case study about forest justice specifically, he describes how the government mainly had an eye for the redistribution of licenses but paid barely any attention to the recognition of Indigenous rights, let alone to the representation of IPs in the decision-making. This resulted in laws and policies that were fixated on economic development and led to an unequal reallocation among IPs and the state. This unequal reallocation translated into imposed obligations that IPs had to accept to receive short-term licenses for small areas that did not grant them land rights. Four of the 11 records described how the land allocation mechanism favours certain land license holders that are often not IPs (e.g., Hugill & Toews, 2014). Moreover, 7 out of the 11 articles depicted a lack of oversight on the systemic ecological and legal implications of land allocation decisions by the government (e.g., Datta & Marion, 2021). One study reported land allocation disputes between the

Kanesatake Mohawks and Christian missionaries (Fayazi et al., 2020). The federal government tried to solve these disputes by purchasing land areas in the name of the *Mohawks*. However, these areas were small and mixed with private lands from non-IPs, thus only providing the Mohawks with scattered pieces of their ancestral land.

Finally, there were also three codes related to the security of IPs on their lands. Two studies reported how IPs were dissatisfied with the (climate change) policies (Fayazi et al., 2020; Greaves, 2016). For the *Mohawks* in Québec (Fayazi et al., 2020), this discontent largely came from increased floodings on their ancestral lands. The *Mohawks* claimed they suffered from the consequences of climate change even though not they but the state ("Western society") caused it. In another case study, the *Inuit* demanded better policies as they believed that the state's legislature and policies negatively impacted them for various reasons (Greaves, 2016). First, they argued that the state made many decisions without including the *Inuit*. Second, according to the *Inuit*, this lack of consultation and representation resulted in destructive policies for their ancestral lands and their way of living. A specific code assigned to this study illustrates the subjection of the *Inuit* to the government, which is how Canada used them as 'markers' by forcing them to move to the far northern parts of the Arctic. The state's motive was that the *Inuit* could then support Canada's Arctic sovereignty (Greaves, 2016). The third and final code related to IPs' security was deploying armed forces for different incentives (6 studies: e.g., Nchet et al., 2021). Sometimes, armed forces were used to attack Indigenous checkpoints, move IPs away and make room for land development projects. This was discussed, for instance, in a study on the *Wet'suwet'en* and the *Gidimt'en* Checkpoint, which has been invaded and attacked multiple times by the Royal Canadian Mounted Police (Atleo & Boron, 2022). However, sometimes, these armed troops were not employed by the state but by ordinary civilians who strongly opposed the land management and occupation of IPs (e.g. Oliveira, 2021).

5.2.2 *Legal and Political Manoeuvres in Consultation Mechanisms*

Eleven of the 18 studies were assigned the code "do not comply with FPIC" (e.g., Nchet et al., 2021). Across the dataset, there were different actions that governments, industries, companies, and other opposing actors undertook or did not undertake that were considered insufficient according to IPs to comply with FPIC. For example, three studies highlighted how governments denied having any fiduciary duties (e.g., Hunsberger & Awâsis, 2019). Among the claimants, the *Cree Nation* described how the state misgoverned the allotment given by their community and how they did not receive any financial or juridical aid in court cases against the extractive projects (Datta & Marion, 2021). The *Cree* argued that these three shortcomings were all encroachments of their rights related to FPIC. Two other records also indicated how the IPs in their studies received no financial aid from the state in court cases (Éthier et al., 2021; Nikolakis, 2022). Three of the 18 articles discussed the legal avoidance manoeuvre whereby government officials or companies pushed for out-of-court accords as these avoid lawsuit expenses and have a higher success rate (e.g., Papillon & Rodon, 2020).

A phenomenon described as the levelling process also shows a lack of compliance with FPIC (Hugill & Toews, 2014). It is about how the Canadian government claims that all citizens earn the same rights,

including IPs. However, the state hides behind this levelling process, ignoring its responsibility to respect the exclusive rights and titles of IPs. These exclusive rights are already entirely or at least partly acknowledged and allocated in arrangements between Indigenous communities and the state in negotiations between the two nations. The researchers also observed this levelling process in 2 other studies (Hunsberger & Awâsis, 2019; Oliveira, 2021). Hugill and Toews (2014) confer a different type of hiding: excluding the authentic living circumstances of IPs from the dominant portrayal of the areas where they live. This study is about the Indigenous communities from the *Cree*, *Ojibwe*, and *Métis Nations* living in the North End, in the city centre of Winnipeg. Opponents make use of the mainstream negative portrayals of North End (i.e. unsafe, criminal) and project these xenophobic denunciations upon the IPs. Consequently, the opponents use these negative depictions to argue in favour of urban development projects with Western values (e.g., the settlement of the Youth for Christ organisation).

A different political bias manoeuvre is the favouritism that sometimes occurs in land conflicts where opponents of IPs arrange government officials with a similar background and political agenda (e.g., extractive industries) to resolve the land conflict (Hunsberger & Awâsis, 2019; Nachet et al., 2021). Other tactics of opposing actors involve deceiving IPs, either by spreading misinformation or insufficient information (Datta & Marion, 2021; Hunsberger & Awâsis, 2019) or by lying to IPs about the repercussions of the signed treaty (Castleden et al., 2017).

The final manoeuvres of opposing actors had temporal elements. The first one was used by the National Energy Board (NEB) in the court case concerning the pipeline project of the oil company Enbridge. Namely, the NEB set unrealistic hard-to-reach deadlines for the *Ojibwe*, *Haudenosaunee*, *Métis*, and *Anishinaabe Nations* to examine all available documents from Enbridge, making it challenging to prepare well for the lawsuit (Hunsberger & Awâsis, 2019). The second manoeuvre was observed in the case study about the negotiations between the *Atikamekw Nehirowisiw Nation* and the Canadian government (Éthier et al., 2021). These negotiations were ongoing for about 40 years since the federal government instituted the results-based approach in 2012. The mechanism would focus on reaching agreements between IPs and the state as swiftly as possible. Their method to advance the negotiations was to discard consultation processes with IPs unlikely to successfully close a deal anytime soon, based on the government's conditions. Practically, this meant that the power relations between IPs and the government became even more unequal. First, the state held all power over which Indigenous communities were invited to the negotiation table in the first place. Second, once IPs were engaged in negotiations, they felt constant pressure to capitulate as they could be kicked out when they would not.

5.2.3 *Economic Tactics and Incentives*

The most common economic tactic was to exclude IPs from economic development (5 studies: e.g., Greaves, 2016). For instance, *the Westbank First Nation* in British Columbia experienced exclusion due to ambiguous and erratic economic conditions imposed on them, and the fiduciary assets of *the Six Nations* in Ontario were exploited by the state (Atleo & Boron, 2022). Another method used by the government was to provide economic incentives during corporate lobbying attempts to gain power support for resource

development projects from industries and companies (4 studies: e.g., Éthier et al., 2021). One study depicted how the opposing actors tried to get back by running a gigantic national social media campaign that displayed resource extractivist projects as appealing to everyone (Spiegel et al., 2020).

There were two codes related to economic exploitation. The first was about the exploitation of resources on Indigenous lands for colonial industries without the consent of IPs (4 studies: e.g., Nagai, 2021). The second code concerned how opposing actors exploited IPs by employing them on their ancestral lands to do labour-intensive work in resource extraction industries for little payment (Dick et al., 2022). Moreover, two more codes could be considered economic leverage in negotiations with IPs. The first one involved how the state mostly or only presented economic accommodation to IPs in impact benefit agreements instead of giving them what they advocated for self-determination and self-governance (4 studies: e.g., Curran, 2019). A different type of economic coercion manoeuvre was to divide IPs and weaken their positions in the negotiations by offering economic incentives and benefits to specific Indigenous communities to gain more support for resource extractive or other types of land projects (Nachet et al., 2021).

5.2.4 Cultural Assimilation and Environmental Neglect

The main observation that emerged from the dataset was the disregard of the opposing actors regarding Indigenous environmental stewardship, sovereignty, cultural practices, and social and spiritual identity (8 studies: e.g., Nightingale & Richmond, 2022). In practice, this disregard translated, for instance, in the disruption of Indigenous traditional resource management practices (7 studies: e.g., Dick et al., 2022). Six of the 18 studies reported that the disregard went hand in hand with enforcing Western values, language, laws, governance structures, culture and lifestyles upon IPs (e.g., Oliveira, 2021). In 3 studies, this also entailed the forced conversion of IPs to Christianity (e.g., Hugill & Toews, 2014). The last code concerning cultural assimilation was the assassination of the *Inuit's* sledge dogs by the armed forces of the state in the 1960s (Greaves, 2016).

A code related to the environmental neglect of Indigenous ancestral lands involved the violation of promises regarding responsible waste and water management (6 studies: e.g., Spiegel et al., 2020). For example, the *Pictou Landing First Nation*, a small *Mi'kmaw* community in Nova Scotia, was dealing with the contamination of an inlet of the sea that played an essential role in their Indigenous identity (Castleden et al., 2017). The pollution had been caused by the waste of an industrial pulp mill nearby, established there in the 1960s. Another waste and water management regulation violation involves the *Cree Nation* in Saskatchewan (Datta & Marion, 2021). The community reported a continuous occurrence of pipeline leaks in the river. According to them, the state and industries were avaricious: they only had capitalistic motives and did not concern themselves with possible negative environmental impacts.

The final code of this theme involved a general disregard for the safety of IPs and the environment in emergencies (3 studies: e.g., Hunsberger & Awâsis, 2019). To illustrate, a case study about the *Mohawk community of Kanasatake* in Québec showed they did not have easy access to public emergency services

such as a fire brigade (Fayazi et al., 2020). The Mohawks argued that the disconnect and arguments between several layers of the government and Indigenous representatives created significant barriers for the Mohawks to set up their governmental crisis administration.

5.3 Systems, Mechanisms, and Actions Used by the Indigenous Communities

This section aimed to find answers to the following sub-question: What systems, mechanisms, and actions do *Indigenous communities use in these conflicts to advocate for their perspectives and beliefs?* When searching for patterns, four themes stuck out: 1) **Legal Actions**, 2) **Political Engagement and Economic Opportunities**, 3) **Community Mobilisation**, and 4) **Cultural Revitalisation, Environmental Stewardship, and Repossession**.

5.3.1 Legal Actions

The highest frequency for a code for section 5.3 was “negotiate and/or get land rights” (17 studies: e.g., Papillon & Rodon, 2020). The only articles that did not get assigned this code were focused on the negative (environmental) impacts on Indigenous territories caused by the opposing actors and not so much on legal actions (Castleden et al., 2017; Spiegel et al., 2020; Dick et al., 2022). Like the opposing actors, the IPs also went to court often to fight for their rights (11 studies: e.g., Nikolakis, 2022). An example of litigation can be found in the case study on the *Dunne’za community* in British Columbia (Booth, 2017). It illustrates how they started a lawsuit against the prospective construction of the Site C Dam since they believed it would be an encroachment of their rights, as defined in Treaty 8. Furthermore, they claimed that other solutions would not encroach on their rights or eradicate the Peace River Valley, their ancestral lands.

Whilst all other records involving litigation also discussed infringements of rights on ancestral lands, one record concerned an urban land conflict instead—namely, the conflict involving the Indigenous population in Winnipeg (Hugill & Toews, 2014). The population there (consisting of IPs from the *Métis, Cree, and Ojibwe Nations*, as mentioned before) were forced to migrate from the Indian reserves and ancestral lands midway through the 20th century and formed a community in Winnipeg. The conflict started because the government endorsed the Youth for Christ settlement in North End, a city area where a large majority of the IPs resided. The IPs were against their settlement, as they believed that the “provision of public funds for the project would reproduce the assimilationist dynamic of Indian Residential Schools, whereby the Canadian state sponsored religious organisations to “Christianize” Aboriginal children” (Hugill & Toews, 2014, p. 3). Furthermore, IPs contended that North End is mainly inhabited by them, calling for the government to exclusively subsidise projects that align with the IPs’ way of living, culture, and values.

There were various actions within the borders of the legal Western framework for IPs to defend their rights and lands. A very straightforward but vital one for IPs was publicly demanding the government follow the FPIC protocol (4 studies: e.g., Nikolakis, 2022). Five of the 18 articles discussed how IPs did not sign treaties or policies as they would have ceded their traditional territory if they did (e.g., Nachet et al., 2021). The *Atikamekw Nehirowisiwok* community in Québec is one of the case studies that writes about refusing to sign any treaty with the state (Éthier et al., 2021). In their case, it led, unfortunately, to the extermination

of their land rights. This was because, as discussed in section 5.2, other Indigenous communities did sign treaties that confirmed (part of) their land rights. However, these lands concerned an area that coincided with what the Atikamekw claimed as their territory.

And finally, a few codes detailed how IPs advocated for a different type of land management. First, 8 out of the 18 studies renounced the government's examination of the environmental impacts of extractive or other land projects, thus refusing to consent according to the FPIC protocol (e.g. Atleo & Boron, 2022). Six of the 18 records were assigned the code “evaluating land projects on Indigenous lands by utilising Indigenous laws procedures and explaining them to governments and researchers” (e.g., Oliveira, 2021). An illustration of this type of evaluation is from *the Okanagan Nation* in British Columbia (Curran, 2019). The *Okanagan* worked with the provincial government as the Okanagan Basin Water Board to improve environmental impact assessment methods, specifically about water discharge. The IPs’ contribution was based on their water law, *the Syilx Nation Siwìkw* (water) Declaration, which depicts the relationship between humans and water and the obligations of humans to manage water qualitatively and quantitatively. The *Okanagan* could also potentially expose their water law's infringement by evaluating its implementation in Indigenous-approved policies. The final code about Indigenous views on land management is more insistent. It ensures the inclusion and use of Indigenous laws in environmental assessment policies and jurisprudence (Papillon & Rodon, 2020; Nagai, 2021).

5.3.2 Political Engagement and Economic Opportunities

Regarding political engagement, IPs were proactive in developing and reforming their governments (7 studies: e.g., Atleo & Boron, 2022). A particularly successful example of Indigenous governing is the study of the *Anishinaabe community of Biigtigong Nishnaabeg* (Nightingale & Richmond, 2022). They established their own Department of Sustainable Development to improve the surveillance and examination of all land projects on their lands. Three crucial elements helped make the department prosperous. First, they implemented a structural division between administration and politics. IPs working for the department indicated that it allowed for more cooperative connections between the elected authorities and them, making it easier for them to do their work without constantly being ordered around by the new leaders. Aligned with this, the *Biigtigong* chose not to change their leadership figures too often to keep stability in Indigenous governance. Second, they reduced their economic reliance on external sources and actively strived to increase the government's income. The department launched their enterprises and charged companies that hired them as environmental consultants. The final crucial element of the government's success story was the people: even though there were many barriers, such as lack of funding and capacity, the employees from the Indigenous community were very motivated and dedicated to keeping the *Biigtigong* government up and running.

Three of the seven studies that described the development of an Indigenous government also created their constitution (e.g., Nikolakis, 2022). For example, for the *Westbank First Nation* (WFN) in British Columbia, the development of their constitution was followed by steadily improving their economic position by renting out pieces of the WFN territory. This advancement enabled WFN to escape the Indian

Act and eventually devise its constitution (Atleo & Boron, 2022).

The study found two more codes related to strengthening the position of Indigenous communities. The first described how the corresponding Indigenous communities kept and advanced their approaches to transmitting IKS and territorial authorities (Fayazi et al., 2020; Nightingale & Richmond, 2022). Furthermore, some articles reported how IPs developed their own (non-)governmental organisations to advocate for their interests (4 studies: e.g., Oliveira, 2021). Take the *Inuit*, who live, amongst other areas of different countries, in the northern part of Canada. They defend themselves in organisations such as Inuit-led companies that oversee the implementation of the state's land treaties with IPs, the national Inuit institution called Inuit Tapiriit Kanatami, and the provincial government of Nunavut (where the majority of the population is Inuit) (Greaves, 2016).

There were multiple codes related to collaboration and communication in political settings. Three of the 18 case studies reported that their respective IPs participated in public consultations with the government and industries (e.g. Hugill & Toews, 2014). For instance, a few Indigenous communities (*Chippewas of the Thames, Aamjiwnaang, Mississaugas of the New Credit, and the Mohawk Council of Kanesatake*) in the Hunsberger & Awâsis' (2019) article participated in public consultation processes regarding the Line 9 Pipeline in areas part of Québec and Ontario. During those processes, they, among other things, questioned its transparency and thoroughness, requested an archaeological examination of the area, and claimed that they could not thoroughly investigate the extractive project's environmental impacts due to a lack of information.

In contrast to these public consultations, where IPs mostly challenged the other actors involved, there have also been a few instances of collaboration. Not only did IPs sometimes collaborate with other Indigenous communities (4 studies: e.g., Éthier et al., 2021), but they also collaborated with governments or other stakeholders. One study highlighted the partnership between the *Tsilhqot'in Nation* and the government to address environmental problems and work on abiding reconciliation (Nagai, 2021). Another code specifically considered collaboration to develop and influence policies for land governance together (4 studies: e.g., Papillon & Rodon, 2020).

The last part of this theme is about the economic opportunities that IPs grasped. The first paragraph already illustrated how the *Biigtigong* reduced their financial dependence by, amongst other things, getting investment returns (Nightingale & Richmond, 2022). Several other Indigenous communities, such as the Haida Nation, managed to get revenues under the Great Bear Rainforest Act, similar to how the *Biigtigong* did (Nikolakis, 2022). The *Biigtigong* government also provided job and business skills programs and training to help IPs participate and benefit from economic activities related to land use, promoting sustainable ways to earn a living (Nightingale & Richmond, 2022). The final code is controversial, as two records reported how some of the respective Indigenous communities favoured extractive projects because of employment possibilities (Nachet et al., 2021; Papillon & Rodon, 2020).

5.3.3 Community Mobilisation

Over half of the records reported how IPs engaged in grassroots actions (13 studies: e.g., Castleden et al., 2017). Two of those 13 studies illustrated how the respective Indigenous communities physically defended their lands and rights (Nagai, 2021; Oliveira, 2021). A more commonly used approach in grassroots movements was to use media (e.g. audiovisuals or social media) to communicate their rights and the injustices they face (8 studies: Spiegel et al., 2020). For instance, next to the several protests that the *Dunne'za people* organised against the Site C Dam, they also made two videos that show the state of their ancestral lands before and after the dam installation (Booth, 2017). Two records reported how the Indigenous communities of those studies created organisations to communicate research and information to other IPs within their communities (Éthier et al., 2021; Nightingale & Richmond, 2022). In the case of the *Biigtigong* government, their employees record data and information on ancestral land management (Nightingale & Richmond, 2022). Subsequently, they share this knowledge with community members to cherish the Anishinaabe cultural practices and heritage and use it to improve their legislation and governance.

Sometimes, IPs also get external help and validation of the injustices they experience from non-Indigenous people, researchers, or large and vital institutions or organisations (e.g., NGOs, IOs) to apply (inter)national pressure on governments (3 studies: Booth, 2017; Nagai, 2021; Oliveira, 2021). Lastly, two studies illustrated how Indigenous communities benefited from national campaigns (Atleo & Boron, 2022; Booth, 2017). To urge the Royal Bank of Canada to quit subsidising extractivist projects such as the Coastal GasLink Pipeline, the *Wet'suwet'en* in British Columbia started a campaign (Atleo & Boron, 2022; Booth, 2017). This campaign followed negotiations with the state about the pipeline because of the pressure of the worldwide solidarity protests.

5.3.4 Cultural Revitalisation, Environmental Stewardship and Repossession

Throughout the data, the researcher observed several ways that IPs are used to maintain cultural connections to the land. The method with the highest frequency was the preservation and sharing of IKS (10 studies: Papillon & Rodon, 2020). Seven out of the 18 articles discussed how Indigenous communities documented the community Elders' stories about their culture, traditions, language, knowledge, and spirituality (e.g. Greaves, 2016). In the case study on *the Mi'kmaw community*, the Elders were involved with the documentation of the state of their ancestral lands and the sea inlet that they call A'se'k before the pulp mill was built and started polluting the water of A'se'k and destroying all ecosystems (Castleden et al., 2017). Another approach of IPs to maintain their connection to the land was by revitalising traditional resource practices (8 studies: Fayazi et al., 2020). For example, *the Tsleil-Waututh Nation's* fishing practices are essential for their Indigenous identity as they also serve as spiritual rituals (Spiegel et al., 2020). The final critical method for IPs was to implement cultural and social programs to strengthen community bonds and preserve Indigenous culture (5 studies: Hugill & Toews, 2014).

Then, there were also a few mechanisms that involved IKS. Three records reported how IPs participated

and sometimes even organised symposia to discuss IKS, Western knowledge and land management, and workshops on negotiation techniques (e.g., Nagai, 2021). Additionally, *the Mohawk community of Kanasatake* enhanced their local adaptation strategies using IKS (Fayazi et al., 2020). Two other studies depicted how the *Innu* and the *Tsleil-Waututh Nation* used IKS to show the negative impacts of extractivism (Nachet et al., 2021; Spiegel et al., 2020). Lastly, two studies illustrated how IPs addressed oppressive macro structures that continued to impede Indigenous ways of living, such as federal law and (inter)national economies, to help them in environmental repossession (Nagai, 2021; Nightingale & Richmond, 2022).

5.4 Consequences of Land Conflicts for IPs in Canada

As mentioned in the introduction, land conflicts between IPs and other actors always concern the land rights of IPs, be it in terms of, for example, land boundaries or resource management. However, this section goes beyond the consequence of loss of land and thus dives into the ensuing sub-question: *What are the consequences of these land conflicts for Indigenous Peoples and Canada in general?* Four themes emerged in the data analysis: 1) **socio-cultural impacts and reconciliation challenges**; 2) **environmental and health impacts**; 3) **legal and political ramifications**; and 4) **societal and economic consequences**.

5.4.1 Socio-Cultural Impacts and Reconciliation Challenges

The erosion of the Indigenous identity, consisting of IKS, spirituality and culture, was a negatively perceived consequence of the land conflicts that prominently stuck out of the data set: 13 out of the 18 records discussed it. A few articles mentioned concrete examples of this erosion, like the lack of passing IKS to younger generations (Castleden et al., 2017; Greaves, 2016) or alterations and destructions of Indigenous culturally sacred areas (Nagai, 2021; Spiegel et al., 2020). Eight articles reported the displacement of IPs from their ancestral territories, either at the beginning of colonisation (e.g., Dick et al., 2022) or also in the past few years (e.g., Nightingale & Richmond, 2022). One study described how displacement coincided with the social fragmentation of Indigenous communities, as they were split up into different cities migrating from reserves (Hugill & Toews, 2014). However, the other case study with the code “social fragmentation” discussed how First Nations got divided not spatially but because they disagreed on expanding a natural gas pipeline (Oliveira, 2021). The final negative consequence that recurred frequently (8 times) was the increased feelings of mistrust, suspicion and threat from IPs towards government, industries, and armed forces due to the land conflicts and often refusal of Indigenous (land) rights. To illustrate, the Unist’ot’en clan had become so suspicious of the aims of anyone wanting to enter their claimed lands that they developed their own FPIC protocol, as we already discussed in section 5.3 (Temper, 2019).

The biggest positive consequence of this theme was the strengthened social cohesion of IPs through a fostered sense of justice and self-determination (8 times). Sometimes, this social cohesion helped create Indigenous cooperation to reach co-management agreements with governments or other actors on land claims or how to govern water resources (e.g., Curran, 2019). The code “increased recognition of Indigenous rights” was assigned to 4 studies, among three studies, coincidentally or not, that also got

assigned the codes “social cohesion” and “co-management agreements” (e.g., Nikolakis, 2022).

5.4.2 Environmental and Health Impacts

The code “destruction of critical ecosystems and (agricultural) lands” was assigned to 13 out of 18 studies in the data set, the highest number within this theme. 9 of these 13 records explicitly mentioned air, land and water contamination due to extractivism (e.g., Nachet et al., 2021). Most of these case studies concerned oil and gas development (e.g., Dick et al., 2022), and two case studies mentioned the polluting effects of hydroelectric dam constructions (Booth, 2017; Dick et al., 2022). Four studies claimed that poor waste management of their extractivist projects was the main reason for environmental pollution (e.g., Castleden et al., 2017). Other environmental impacts of the land conflicts involved a decrease in certain foods, essential ingredients for medicines, and resources for sustainable development for IPs (9 studies: e.g., Greaves, 2016); and, more specifically, deforestation (5 studies: e.g., Datta & Marion, 2021) and the loss in quantity and quality of freshwater (6 studies: e.g., Curran, 2019). Four case studies declared a higher vulnerability and risk to natural disasters and climate change. For the two case studies on the Mohawk community of Kanasatake in Québec and the Inuit in the Arctic, this vulnerability added to the pressure of forcefully being displaced (Fayazi et al., 2020; Greaves, 2016).

There were also a few codes about the increased vulnerability of IPs’ health because of the land conflicts. Five articles out of 18 discussed the production of stress and trauma for IPs (e.g., Éthier et al., 2021). For example, the Anishinaabe community experienced high-stress levels because of the pressure to implement their government structure and reclaim their lands, with all its complications, such as lack of financial means and workforce (Nightingale & Richmond, 2022). Four records out of 18 declared higher rates of mortality, disease, and substance abuse within Indigenous communities. In 2 of these records, the respective Mi’kmaw and Tsleil-Waututh Nation claim that the pollution of their ancestral lands caused these higher rates of mortality, disease, and substance abuse in their communities (Castleden et al., 2017; Spiegel et al., 2020).

5.4.3 Legal and Political Ramifications

An evident pattern in the data set was the advocacy for better mechanisms to let IPs meaningfully participate in future governance processes (7 studies) (e.g., Papillon & Rodon, 2020). Four of those seven studies also recommended the (further) acknowledgement and implementation of Indigenous justice systems in Canadian legislation (Curran, 2019; Nagai, 2021; Papillon & Rodon, 2020; Spiegel et al., 2020). For instance, Curran (2019) claimed that current water governance and law are often still rooted in settler colonialism by ignoring or even rejecting Indigenous rights. These depoliticised state mechanisms starkly contrast with Canada's endorsement of the UNDRIP. Nagai (2021) supports Curran's opinion on this disjuncture but more from a general governance perspective. Nagai (2021) points out how the Canadian FPIC differs from the international FPIC (defined in the UNDRIP). The Canadian FPIC focuses on fair consultation processes, not on the results of the process. Moreover, according to Canadian law, the state determines the level of consultation that it provides, which depends on the strength of the IPs’ rights. In

international FPIC, it does not matter to which degree their rights are acknowledged in the national constitution; every Indigenous community deserves the same results, namely, to be granted the rights outlined in the UNDRIP.

5.4.4 *Societal and Economic Consequences*

The most recurring code of this theme was: “IPs’ lower socioeconomic indicators” (8 studies) (e.g., Booth, 2017). However, detailed explanations or discussions about this consequence are lacking in the dataset. The runner-up was socioeconomic marginalisation, with 6 out of the 18 studies discussing this (e.g., Éthier et al., 2021). The *Kwakwaka’wakw* and *Coast Salish* communities also experienced this economic marginalisation as the land conflicts destroy their environments, decreasing their connection with their traditional resource practices and access to food that both provide a big part of their livelihood (Dick et al., 2022). Furthermore, four studies reported how IPs experienced little to no benefit from the wealth accumulated from the land development projects in the extractive sector in their territories (e.g., Castleden et al., 2017). A good illustration of this code can be found in the case study on the *Innu community of Matimekush-Lac-John*, a community spread out over Québec and, Newfoundland and Labrador (Nachet et al., 2022). The land conflict centred around the mineral belt called the Labrador Trough. This mining company marginalised this Innu community in various ways as they: 1) barely provided any employment prospects for IPs; 2) profited from excessive tax dispensations; and 3) created an unequal dispersion of economic value as almost all revenues were transferred elsewhere. Three other studies specifically reported a loss of employment from other resources, too (e.g., Greaves, 2016).

Four studies have written about IPs’ increased dependence on governance assistance and, hence, their reduced economic self-sufficiency (e.g., Nikolakis, 2022). The *Atikamekw* community in Québec became more dependent on the state in the negotiations about their land rights (Éthier et al., 2021). To prove the ancestry of their claimed territories, they had to bring in reliable testimonies. However, creating those reliable testimonies required substantial financial capital, which the *Atikamekw* did not have. The only option to keep their place at the negotiation table was getting a government loan. The result was a weakened position for the IPs and a strengthened one for the state, as these mortgages gave the state a more dominant role in the consultation meetings. Lastly, there were two more codes. The second to last concern is the gentrification of the area in the city centre of Winnipeg, where the IPs reside (Hugill & Toews, 2014). The final one was eye-catching, as it was a positive consequence for the IPs, the only positive one within this theme. Namely, the study of Papillon and Rodon (2020) reported how the socioeconomic indicators of the *Cree Nation of James Bay* improved.

6 Discussion

This qualitative systematic literature review researched the state of the art of land conflicts between Indigenous communities and opposing actors in Canada. The review primarily focused on the timeframe from 2007 until now, as the UNDRIP was accepted in 2007. The researcher used the Systematic Literature Review (SLR) methodology of Pickering and Byrne (2014) to guide the review process. Moreover, there were a few sub-questions to help structure the secondary data analysis. The first sub-questions concerned the characteristics of the study (i.e. data on involved parties, geographic and temporal elements). Getting this overview of the features of the land conflicts was a fundamental part of understanding the state of the art. However, the emphasis of the review lay on the other two explorative sub-questions: 1) What systems, mechanisms and actions do the Indigenous communities and opposing actors use in these conflicts to advocate for their perspectives and beliefs; and 2) what are the consequences of these conflicts for Indigenous Peoples?

6.1 Interpreting and Comparing the Results

The overview of the characteristics provided insights into the locations, timeframes, Indigenous communities involved, and opposing actors involved in the land conflicts. What stood out was that some provinces were far more represented in the data set, with British Columbia being the most frequent. The timeframes of the studies differed a lot, as sometimes they discussed land conflicts of centuries ago up till now, and other times, the timeframes were smaller, with a more considerable emphasis on the past few decades. There was a wide variety of Indigenous communities involved in land conflicts. Only a few communities, such as the Cree and the Wet'suwet'en Nation, returned more than once to the dataset. A peculiar finding was the lack of representation of the Métis Peoples in the dataset, seeing that there are ~624,224 thousand Métis Peoples in Canada (Gaudry et al., 2023), thus taking up more than one-third of the total Indigenous population in Canada of ~1.8 million (Government of Canada, 2023b). For the opposing actors, the main result was that the government of Canada was always involved, but on different levels (e.g., federal and provincial). Next to the state, industries, companies, and the Canadian court were also frequently involved. Finally, this study does not correlate with the actual spread of IPs nationwide. In

Four themes emerged when examining the opposing actors' systems, mechanisms, and actions (as discussed in section 5.2). The theme **Law, Legislature and Policy Implementation** mainly illustrated how the state of Canada, industries and other opposing actors actively tried to ignore and nullify the (land) rights of IPs in court and in policies. Smith's and Mitchell's study (2020) illustrated how specifically the Indian Act allowed the state to threaten IPs with possible decreases in financial allowances, coercing IPs not to oppose current policies and laws that determine Indigenous rights. This study did not find this specific oppression tactic back in the dataset. However, a related tactic was how the government threatened IPs to cease negotiations if they would not give up specific demands. The third theme, Economic Tactics and Incentives describes other tactics of excluding IPs from economic development, exploiting IPs, and luring them into agreements with economic incentives. A closely related theme to the former was **Legal and Political**

Manoeuvres in Consultation Mechanisms. The findings almost all revolved around different ways of disobeying the FPIC protocol. Smith and Mitchell (2020) also reported regular FPIC violations and highlighted the absence of the veto right for IPs. Similarly, this review showed how Canada interprets FPIC differently than the UN, with indeed, among others, no veto possibilities. This literature review adds value by giving specific examples of how opposing actors disobeyed FPIC, such as imposing hard-to-reach deadlines on IPs to prepare for lawsuits. Section 5.2 ended with the theme of **Cultural Assimilation and Environmental Neglect.** The key results were the opposing actors' disregard for the Indigenous way of living and the environmental neglect of ancestral lands.

Four themes emerged from the data analysis, respecting the systems, mechanisms, and actions used by the Indigenous communities (section 5.3). The major finding for the theme of Legal Actions was that IPs were almost always (except for three records) negotiating about their (land) rights, mostly in court. Apart from one article, all lawsuits started because IPs claimed there were infringements of rights on their ancestral lands. Furthermore, IPs used different mechanisms to advocate for different types of land management. The second theme, **Political Engagement and Economic Opportunities,** details different IP activities to get closer to self-determination and become less dependent on the state. For example, some Indigenous communities formed their government, constitutions, or (non-)governmental organisations. Some articles also described communication and collaboration efforts of IPs with other actors, such as participating in public consultations or working on better land governance policies with the state. Section 5.3 discussed Indigenous **Community Mobilisation** endeavours. The primary outcome here was how active grassroots movements were and how diverse their tactics (i.e. from audiovisuals to national campaigns). The final theme for IPs was **Cultural Revitalisation, Environmental Stewardship, and Repossession.** The data showed various approaches Indigenous communities use to maintain their connection to the land, such as documenting the stories and knowledge of the community's Elders. Cameron et al.'s (2021) study concerned IPs' perceptions of and solutions against climate change throughout different Canadian provinces. They highlighted similar activities as vital for Indigenous survival. Only the issue in this study was climate change instead of a lack of land rights. Examples included sharing IKS with younger generations and cultural revitalisation efforts. Cameron et al. (2021) argued that the higher vulnerability to climate change and the absence of land entitlements are consequences of the complex, intricate settler-colonial legacies that still oppress IPs today.

The final part of the data analysis examined the consequences of these land conflicts for IPs (section 5.4). The first pattern that arose from the data was **Socio-Cultural Impacts and reconciliation Challenges.** The erosion of the Indigenous identity, consisting of IKS, spirituality and culture, was the most frequent code within this theme and translated in different forms, like alterations and destructions of Indigenous culturally sacred areas. Similarly, Khawaja (2021) described the erosion of culture and language specifically. However, Khawaja (2021) argued that cultural and not environmental assimilation mainly caused and causes language loss. The residential school system, for instance, forbade Indigenous children to speak their native languages, which contributed significantly. Another emerging pattern in this theme was the increased social cohesion of IPs through a fostered sense of justice and self-determination. However, negative

influences on relationships were observed, too: social fragmentation of IPs and increased feelings of mistrust, suspicion and threat from IPs towards opposing actors. The next theme involved the **Environmental and Health Impacts**. Here, the key finding was the destruction of critical ecosystems and (agricultural) lands, translated in, for example, loss in quantity and quality of fresh water. The other result that stood out in this theme was the enlarged vulnerability of IPs' health. **Legal and Political Ramifications** were the third type of consequence. Here, the authors of the studies included in the literature review were more opinionated about the need for further acknowledgement and implementation of Indigenous justice systems in Canadian legislation. Lastly, the results depicted the **Societal and Economic Consequences** of the land conflicts. Here, primarily negative consequences were found, such as the economic marginalisation of IPs and an increased dependence on financial governance assistance. However, one striking result was how, in one study, the socioeconomic indicators had improved.

6.2 Limitations

The summary of key findings and the comparisons to and interpretations are followed by an analysis of the study's limitations.

Methodologically speaking, there were several types of limitations. First, the researchers' biases could have unconsciously influenced her search strings, as discussed in the positionality statement. Even though the researcher tried to be as extensive as possible with the strings of synonyms and related terms, the search strings probably missed some essential keywords. For instance, the term "First Nations" was not included in the search string, whilst that is one of three types of Indigenous communities in Canada. Moreover, the collection and analysis of secondary data could have been influenced by a so-called vividness bias. Due to this vividness bias, certain aspects of land conflicts between IPs and opponents might have been unconsciously ignored, whilst they might have been equally or even more critical. Finally, whilst writing the discussion and conclusion, the study came across other case studies that should have been included in the data analysis but were not found using the SLR method.

The results had several limitations. As mentioned in the previous paragraph, there is more literature on land conflicts between IPs and opposing actors than in this research (e.g., Amatulli, 2022; Tsuji, 2022). Furthermore, in this review, perhaps not all literature provided results that should be viewed with the same significance and importance. The study relied solely on the reported findings from the selected literature and did not examine the methods used in those studies. It might have been better to rank the included records, for instance, based on the extent to which IPs were involved in the research process. In addition, the data collection excluded any grey literature or books. However, they might have had valuable insights that the included articles did not provide, such as the insights of Human Rights Watch (2024) mentioned in the introduction. Lastly, there was very little secondary data about land conflicts with Métis or Inuit Peoples to analyse, indicating that the emerged patterns mainly apply to First Nations based on this research.

Another limitation was that the case studies did not give a realistic representation of the spread of IPs, as some provinces were underrepresented and others were overrepresented. This geographic limitation will

most likely have resulted in fragmented evidence. Hence, the frequency of some codes might have been entirely different if the data set had been a realistic geographical depiction of the IPs' dispersion across Canada. Temporally, the study focused on land conflicts from 2007 until now because of the UNDRIP adoption in 2007 as an essential turning point in Indigenous rights' protection. Nevertheless, it might have been better to have a smaller timeframe to improve the thoroughness of the research. On the other hand, one could also argue for a larger timeframe, as critical events before the UNDRIP adoption might substantially influenced current land conflicts. The broadness of the research scope limited the possible level of detail. The study only examined state-of-the-art land conflicts concerning IPs' rights in general.

Finally, it is possible that the researcher's positionality also influenced the interpretation of the results. The researcher had little affiliation with Indigenous communities before starting this research, both personally and academically. The researcher had little knowledge and understanding of who Indigenous people are, let alone what they value, how they look at the world, and how they are marginalised. In practice, the researchers' biases had considerable consequences on the research. For instance, the researcher started the research project with a very Western perspective by thinking about how we could 'help them' and how we could make environmental policies better by including their perspectives instead of questioning if there might be something fundamentally wrong with how we make our policies and how we do not grant them the rights they are entitled to according to the UNDRIP. In contrast to these arguments however, one could also argue how the SLR method and the awareness in the form of the researcher's positionality contributed positively to the objectivity. The SLR method was chosen because of its transparency, replicability, and options for non-linearity. The transparency and replicability of SLR helps exposing biases, and the non-linearity allowed for improvements of the literature selection and categorisation once biases were detected.

6.3 Theoretical Contributions

The data of this literature review was investigated using the IEJ lens developed in the theoretical framework. Although this was a qualitative study, the results from the data analysis revealed patterns about the intricate interactions and mechanisms in these land conflicts. These patterns contributed to the further development and improvement of the IEJ lens in various ways. Hence, based on the key findings of this study, IEJ should focus more on the three priorities of IPs: FPIC, land and resource rights, and self-governance and -government. Moreover, a large part of the results chapter reported patterns of opposing actors who discriminated and marginalised IPs through intricate legal and political avenues, mostly used by different layers of the government. These have shown how important it is to evaluate if the legal and political rights are adhered to in land conflicts where IPs are fighting for self-determination when using an IEJ lens. When looking at the key findings of the activities that IPs employed in these land conflicts, one priority stands out. Namely, IPs attach great value to maintaining a cultural connection to the land in different manners such as being able to carry out traditional resource practices. Thus, even when IPs have their land rights, it is vital to examine whether IPs are also able to perform all their activities to maintain the cultural connection to their lands from an IEJ perspective.

7 Conclusion & Contextual Exploration

To help unravel the complex systemic oppression mechanisms of land conflicts, this qualitative literature review's objective was to provide a state-of-the-art analysis of land conflicts between Indigenous communities in Canada and their opposing actors. Using the SLR method, 18 studies were selected for the data analysis. The results first provided an overview of where and when these land conflicts occurred and which IPs and opponents were involved. There were a few striking observations. Some provinces, like British Columbia, were overrepresented compared to others. In addition, the Métis Peoples were heavily underrepresented in the dataset. Another main finding amongst the opposing actors was how the court was heavily involved in the land conflicts.

Then, the results illustrated how the opposing actors and the IPs used a variety of mechanisms and approaches in these land conflicts. The four categories of approaches for the opposing actors were 1) Law, Legislature, and policy Implementation; 2) Legal and Political Manoeuvres in Consultation Mechanisms; 3) Economic Tactics and Incentives; and 4) Cultural Assimilation and Environmental Neglect. The study also found four themes for the IPs across the data set: 1) Legal Actions; 2) Political Engagement and Economic Opportunities; 3) Community Mobilization Endeavours; and 4) Cultural Revitalization, Environmental Stewardship, and Repossession.

The final sub-question to complete the state-of-the-art involved the consequences of these land conflicts for IPs. Here, four themes emerged in the data analysis: 1) Socio-Cultural Impacts and Reconciliation Challenges; 2) Environmental and Health Impacts; 3) Legal and Political Ramifications; and 4) Societal and Economic Consequences.

7.1 Implications

The implications of this study are diverse as they include societal implications, promising advantages for solving socio-technical issues, and valuable perspectives for the academic community. Although this study focused on the workings of land conflicts, Western society could learn a lot from how Indigenous communities positioned themselves in the world and their life priorities. Their strong cultural, spiritual, and social relationship to their ancestral lands is at the core of the Indigenous identity, contradicting the capitalistic standard around the world.

In terms of the socio-technical issue of the climate crisis, the Western world could learn much from Indigenous views on land. IPs do not believe you can really own the land. They view their relationship with nature as equal or even dutiful, as they are here on Earth to live in harmony with the land and take care of it (e.g. Tsuji, 2022). Many IPs believe that parts of nature, such as forests or rivers, should have legal rights too, just like people. This perspective is crucial because the dominant societal model does not prevent extractive land development projects from proceeding unless there are laws in place to halt them (e.g., Brondízio et al., 2021; Wilson et al., 2019). Legal trends are emerging to grant rights to nature (Zeebroeck, 2022). Given IPs' exemplary skills in caring for nature, as described in the introduction, it is advisable for

policymakers and legislators not only to allow them to continue safeguarding their lands but also to carefully consider IPs' views on land management and protection. This approach could potentially contribute to achieving Sustainable Development Goal (SDG) 13, Climate Action (Neshovski, n.d.).

From a societal perspective, there are two other SDGs that this study aligns with as well, namely SDG 15, Life on Land, and SDG 16, Peace, Justice, and Strong Institutions (Neshovski, n.d.). The United Nations Special Rapporteur on extreme poverty and human rights spoke of the looming threat of 'climate apartheid' by the end of this century (UNEP, 2020). He described this unequal phenomenon as follows: rich people (mostly from the Global North) have enough financial resources to stay safe, regardless of how severe climate change effects will turn out. However, the poor, who contributed least to climate change to begin with, don't have that option and will have to endure severe consequences such as droughts and food shortages. If IPs were to achieve IEJ and gain self-determination and land rights, they would reach SDGs 15 and 16 within their own communities. This would make them less likely to suffer from climate apartheid, as their cultural heritage would prosper in harmony with flourishing natural environments that provide sufficient resources and food for their livelihoods.

Academically, there are a few implications too. The first one is directed towards natural scientists who get in contact with IPs by wanting to do some research on Indigenous lands or at least do research that affects Indigenous communities in some way. The opposing actors in this study on land conflicts were mainly different legislature and judiciary layers. However, we sometimes saw how researchers can ignore or deny IPs their rights, like in the case study from Datta & Marion (2021). Various publications, mainly from social scientists, have asked to integrate social science into natural science (cite my source later). Even more specifically, there are publications in which academics ask for reconciliation integration in natural science studies, such as Wong et al. (2020). This study on land conflicts concerning IPs in Canada could educate natural scientists immensely to avoid disrespectful attitudes towards IPs. Moreover, although the researcher of this study is not an Indigenous person herself, she argues that academia would be more inclusive towards IPs if more Indigenous researchers were given a stage.

7.2 Recommendations for Future Research

In addressing the imperative of indigenous environmental justice in Canadian communities, the following recommendations aim to advance research about Indigenous self-determination and land rights protection.

Future research could make similar state-of-the-art overviews of land conflicts involving IPs but then of other countries with significant Indigenous populations. Good options of countries to zoom in on are the other three countries that also voted against the UNDRIP back in 2007: Australia, New Zealand, and the United States. If there were systematic literature reviews of all these four big countries with large numbers of IPs, it could also be interesting to summarise the findings in a worldwide literature review. It could be interesting to extrapolate it as this field could then learn if there are common patterns in approaches taken by IPs and opposing actors involved on a global level.

It could also be interesting to look into other major problems for IPs in Canada, such as the National Inquiry

into Missing and Murdered Indigenous Women and Girls (Bell, 2018). Entangling the systemic oppression mechanisms of other conflicts could serve the same purpose as for this review and thus inform future researchers and policymakers about the intricate interactions and events regarding this severe issue in Indigenous rights protection.

A few patterns stuck out When looking at how the IPs and the opponents acted in these land conflicts and which approaches they used. Namely, the results detailing the legal manoeuvres and political mechanisms were most prominent for both. Thus, further investigating the interplay between these legal and political battles about Indigenous land rights could provide more thorough insights. A theme that was part of these land conflicts but got little explanation was the economic tactics and consequences. Hence, it would be interesting to understand, among others, how economic marginalisation takes place and how the state uses economic leverage to gain more power.

This section has already briefly touched upon the economic consequences of the previous paragraph. Nevertheless, there were also a few other research avenues concerning the consequences. First, the secondary data analysed did not provide much information about the specific changes to the environment and biodiversity of Indigenous lands. Primary data studies with interviews with IPs or studies in the field of biology could make the negative impacts of resource extractivism and other land development projects more evident. This would significantly contribute to the field because IPs could use this scientific information as evidence in their fight for their land rights.

Altogether, in embracing the imperative of Indigenous land rights and self-determination, we pave a path towards a future where justice, reconciliation, and environmental harmony flourish for Indigenous Peoples in Canada and beyond.

8 References

1. Atapattu, S. A., Gonzalez, C. G., & Seck, S. L. (Eds.). (2021). *The Cambridge Handbook of Environmental Justice and Sustainable Development*. Cambridge University Press. <https://doi.org/10.1017/9781108555791>
2. Atleo, C., & Boron, J. (2022). Land Is Life: Indigenous Relationships to Territory and Navigating Settler Colonial Property Regimes in Canada. *Land*, 11(5), Article 5. <https://doi.org/10.3390/land11050609>
3. Bingham, A. (n.d.). From Data Management to Actionable Findings: A Five-Phase Process of Qualitative Data Analysis. Retrieved 10 July 2024, from <https://journals.sagepub.com/doi/full/10.1177/16094069231183620>
4. Bell, B. (2018, March 4). Our Mandate, Our Vision, Our Mission | MMIWG. <https://www.mmiwg-ffada.ca/mandate/>
5. Booth, A. L. (2017). Northern Environmental Justice: A Case Study of Place, Indigenous Peoples, and Industrial Development in Northeastern British Columbia, Canada. *Case Studies in the Environment*, 1(1), 1–19. <https://doi.org/10.1525/cse.2017.sc.454154>
6. Bourke, B. (2014). Positionality: Reflecting on the Research Process. *The Qualitative Report*, 19(33), 1–9. <https://doi.org/10.46743/2160-3715/2014.1026>
7. Brondízio, E. S., Aumeeruddy-Thomas, Y., Bates, P., Carino, J., Fernández-Llamazares, Á., Ferrari, M. F., Galvin, K., Reyes-García, V., McElwee, P., Molnár, Z., Samakov, A., & Shrestha, U. B. (2021). Locally Based, Regionally Manifested, and Globally Relevant: Indigenous and Local Knowledge, Values, and Practices for Nature. *Annual Review of Environment and Resources*, 46(Volume 46, 2021), 481–509. <https://doi.org/10.1146/annurev-environ-012220-012127>
8. Bullard, R. (1993). Race and Environmental Justice in the United States. *Yale Journal of International Law*. <https://openyls.law.yale.edu/handle/20.500.13051/6282>
9. Calí Tzay, J. F. (2023). A/HRC/54/31/Add.2: Visit to Canada - Report of the Special Rapporteur on the rights of Indigenous Peoples. <https://www.ohchr.org/en/documents/country-reports/ahrc5431add2-visit-canada-report-special-rapporteur-rights-indigenous>
10. Cameron, L., Mauro, I., & Settee, K. (2021). “A Return to and of the Land”: Indigenous Knowledge and Climate Change Initiatives across the Canadian Prairies. *Journal of Ethnobiology*, 41(3), 368–388. <https://doi.org/10.2993/0278-0771-41.3.368>
11. Castleden, H., Bennett, E., Group, P. L. N. W., Lewis, D., & Martin, D. (2017). ‘Put It Near the Indians’: Indigenous Perspectives on Pulp Mill Contaminants in Their Traditional Territories (Pictou Landing First Nation, Canada). *Progress in Community Health Partnerships: Research, Education, and Action*, 11(1), 25–33. <https://doi.org/10.1353/cpr.2017.0004>
12. Claeys, P., Cotula, L., Gilbert, J., Golay, C., Kothari, M., & Torres-Marengo, V. (2022). Land Is a Human Right. In S. M. Borrás Jr. & J. C. Franco (Eds.), *The Oxford Handbook of Land Politics* (p. 0). Oxford University Press. <https://doi.org/10.1093/oxfordhb/9780197618646.013.36>
13. Curran, D. (2019). Indigenous Processes of Consent: Repoliticizing Water Governance through Legal

- Pluralism. *Water*, 11(3), Article 3. <https://doi.org/10.3390/w11030571>
14. Daes, E.-I. A. (2000). Indigenous peoples and their relationship to land: Final working paper /: prepared by the Special Rapporteur, Erica-Irene A. Daes. <https://digitallibrary.un.org/record/419881>
 15. Danspeckgruber, W., & Gardner, A.-M. (n.d.). Self-Determination. *The Princeton Encyclopedia of Self-Determination*. Retrieved 7 July 2024, from <https://pesd.princeton.edu/node/656>
 16. Datta, R., & Marion, W. P. (2021). Ongoing Colonization and Indigenous Environmental Heritage Rights: A Learning Experience with Cree First Nation Communities, Saskatchewan, Canada. *Heritage*, 4(3), Article 3. <https://doi.org/10.3390/heritage4030076>
 17. Dei, G. J. S., & Kempf, A. (2006). Anti-Colonialism and Education: The Politics of Resistance. In *Anti-Colonialism and Education*. Brill. <https://brill.com/display/title/36650>
 18. Department of Justice. (2021, June 16). Joint Statement by Minister Lametti and Minister Bennett on the Senate Passing Bill C-15, An Act Respecting the United Nations Declaration on the Rights of Indigenous Peoples [Statements]. <https://www.canada.ca/en/department-justice/news/2021/06/joint-statement-by-minister-lametti-and-minister-bennett-on-the-senate-passing-billc-15an-act-respecting-the-united-nations-declaration-on-the-righ.html>
 19. Dick, C., Sewid-Smith, D., Recalma-Clutesi, K., Deur, D., & Turner, N. J. (2022). “From the beginning of time”: The colonial reconfiguration of native habitats and Indigenous resource practices on the British Columbia Coast. <https://www.facetsjournal.com/doi/full/10.1139/facets-2021-0092>
 20. Éthier, B., Ottawa, G., & Cocoo, C. (2020). Redefining the Lexicon of Power, Envisioning the Future: The Atikamekw Nehirowisiw Nation and the Comprehensive Land Claims Negotiations. *Anthropologica*, 62(2), Article 2. <https://doi.org/10.3138/anth-2018-0054>
 21. Expert Mechanism on the Rights of Indigenous Peoples. (2018). Free, prior and informed consent: A human rights-based approach (A/HRC/39/62). United Nations - Human Rights Council. <https://www.ohchr.org/en/calls-for-input/free-prior-and-informed-consent-report>
 22. Fajardo, P., Beauchesne, D., Carbajal-López, A., Daigle, R. M., Fierro-Arcos, L. D., Goldsmit, J., Zajderman, S., Valdez-Hernández, J. I., Terán Maigua, M. Y., & Christofolletti, R. A. (2021). Aichi Target 18 beyond 2020: Mainstreaming Traditional Biodiversity Knowledge in the conservation and sustainable use of marine and coastal ecosystems. *PeerJ*, 9, e9616. <https://doi.org/10.7717/peerj.9616>
 23. Fayazi, M., Bisson, I.-A., & Nicholas, E. (2020). Barriers to climate change adaptation in indigenous communities: A case study on the mohawk community of Kanasatake, Canada. *International Journal of Disaster Risk Reduction*, 49, 101750. <https://doi.org/10.1016/j.ijdrr.2020.101750>
 24. Ford, J. D., King, N., Galappaththi, E. K., Pearce, T., McDowell, G., & Harper, S. L. (2020). The Resilience of Indigenous Peoples to Environmental Change. *One Earth*, 2(6), 532–543. <https://doi.org/10.1016/j.oneear.2020.05.014>
 25. Fricker, M. (2007). *Epistemic Injustice: Power and the Ethics of Knowing*. Oxford University Press. <https://doi.org/10.1093/acprof:oso/9780198237907.001.0001>
 26. Garnett, S. T., Burgess, N. D., Fa, J. E., Fernández-Llamazares, Á., Molnár, Z., Robinson, C. J., Watson, J. E. M., Zander, K. K., Austin, B., Brondizio, E. S., Collier, N. F., Duncan, T., Ellis, E., Geyle, H., Jackson, M. V., Jonas, H., Malmer, P., McGowan, B., Sivongxay, A., & Leiper, I. (2018).

- A spatial overview of the global importance of Indigenous lands for conservation. *Nature Sustainability*, 1(7), 369–374. <https://doi.org/10.1038/s41893-018-0100-6>
27. Gaudry, A., Welch, M. A., & Gallant, D. (2023, November 28). Métis. *The Canadian Encyclopedia*. <https://www.thecanadianencyclopedia.ca/en/article/metis>
 28. Government of Canada. (2021, November 18). About the Act. <https://www.justice.gc.ca/eng/declaration/legislation.html>
 29. Government of Canada. (2023a, March 10). The Action Plan. <https://www.justice.gc.ca/eng/declaration/ap-pa/index.html>
 30. Government of Canada. (2023b, June 21). Canada’s Indigenous population. <https://www.statcan.gc.ca/o1/en/plus/3920-canadas-indigenous-population>
 31. Government of Canada. (2024a). Annual progress reports on implementing the United Nations Declaration on the Rights of Indigenous Peoples Act. <https://www.justice.gc.ca/eng/declaration/report-rapport/index.html>
 32. Government of Canada. (2024b). Images for National Indigenous History Month. Government of Canada. <https://www.rcaanc-cirnac.gc.ca/eng/1100100013251/1534874002459>
 33. Greaves, W. (2016). Arctic (in)security and Indigenous peoples: Comparing Inuit in Canada and Sámi in Norway. *Security Dialogue*, 47(6), 461–480. <https://doi.org/10.1177/0967010616665957>
 34. Holifield, R. B., Chakraborty, J., & Walker, G. P. (2018). *The Routledge handbook of environmental justice*. Routledge, Taylor & Francis Group.
 35. Holmes, D., & Gary, A. (2020). Researcher Positionality—A Consideration of Its Influence and Place in Qualitative Research—A New Researcher Guide. *Shanlax International Journal of Education*, 8(4). <https://doi.org/10.34293/education.v8i4.3232>
 36. Hugill, D., & Toews, O. (2014). Born Again Urbanism: New Missionary Incursions, Aboriginal Resistance and Barriers to Rebuilding Relationships in Winnipeg’s North End. *Human Geography*, 7(1), 69–84. <https://doi.org/10.1177/194277861400700112>
 37. Human Rights Watch. (2024). Canada: Events of 2023. *World Report 2024*. <https://www.hrw.org/world-report/2024/country-chapters/canada>
 38. Hunsberger, C., & Awâsis, S. (2019). Energy Justice and Canada’s National Energy Board: A Critical Analysis of the Line 9 Pipeline Decision. *Sustainability*, 11(3), Article 3. <https://doi.org/10.3390/su11030783>
 39. IPCC (2023). AR6 Synthesis Report: Climate Change 2023 — IPCC. IPCC. <https://www.ipcc.ch/report/sixth-assessment-report-cycle/>
 40. Kraljić, S., & Stolz, A.-B. (2010). Indigenous Peoples: From Unrighteousness to the Right to Self-Government. *Lex Localis - Journal of Local Self-Government*, 8(1), Article 1. [https://doi.org/10.4335/8.1.35-63\(2010\)](https://doi.org/10.4335/8.1.35-63(2010))
 41. Kuehn, R. R. (2000). A Taxonomy of Environmental Justice (SSRN Scholarly Paper 628088). <https://papers.ssrn.com/abstract=628088>
 42. Lewis, D., Williams, L., & Jones, R. (2020). A radical revision of the public health response to environmental crisis in a warming world: Contributions of Indigenous knowledges and Indigenous

- feminist perspectives. *Canadian Journal of Public Health*, 111(6), 897–900.
<https://doi.org/10.17269/s41997-020-00388-1>
43. Lines, L.-A., Jardine, C. G., & Yellowknives Dene First Nation Wellness Division. (2019). Connection to the land as a youth-identified social determinant of Indigenous Peoples' health. *BMC Public Health*, 19(1), 176. <https://doi.org/10.1186/s12889-018-6383-8>
 44. Maddison, S. (2022). Agonistic reconciliation: Inclusion, decolonisation and the need for radical innovation. *Third World Quarterly*, 43(6), 1307–1323.
<https://doi.org/10.1080/01436597.2021.2006054>
 45. Martínez Cobo, J. (1981). Martínez Cobo Study—Study of the Problem of Discrimination Against Indigenous Populations. United Nations - Department of Economic and Social Affairs.
<https://www.un.org/development/desa/indigenouspeoples/publications/2014/09/martinez-cobo-study/>
 46. McGregor, D. (2018). Mino-Mnaamodzawin: Achieving Indigenous Environmental Justice in Canada. *Environment and Society*, 9(1), 7–24. <https://doi.org/10.3167/ares.2018.090102>
 47. Mengist, W., Soromessa, T., & Legese, G. (2020). Method for conducting systematic literature review and meta-analysis for environmental science research. *MethodsX*, 7, 100777.
<https://doi.org/10.1016/j.mex.2019.100777>
 48. Menton, M., Larrea, C., Latorre, S., Martinez-Alier, J., Peck, M., Temper, L., & Walter, M. (2020). Environmental justice and the SDGs: From synergies to gaps and contradictions. *Sustainability Science*, 15(6), 1621–1636. <https://doi.org/10.1007/s11625-020-00789-8>
 49. Mitchell, T. (2014). The Internationalization of Indigenous Rights: UNDRIP in the Canadian Context. Centre for International Governance Innovation.
<https://www.cigionline.org/publications/internationalization-indigenous-rights-undrip-canadian-context/>
 50. Mitchell, T. (2019). Realizing Indigenous Rights in the Context of Extractive Imperialism: Canada's shifting and fledgling progress towards the implementation of UNDRIP. *International Journal of Critical Indigenous Studies*, 12(1), Article 1. <https://doi.org/10.5204/ijcis.v12i1.1140>
 51. Mörkenstam, U. (2015). Recognition as if sovereigns? A procedural understanding of indigenous self-determination. *Citizenship Studies*, 19(6–7), 634–648.
<https://doi.org/10.1080/13621025.2015.1010486>
 52. Nchet, L., Beckett, C., & MacNeil, K. S. (2022). Framing extractive violence as environmental (in)justice: A cross-perspective from indigenous lands in Canada and Sweden. *The Extractive Industries and Society*, 12, 100949. <https://doi.org/10.1016/j.exis.2021.100949>
 53. Nagai, F. (2021). Protecting Aboriginal Rights and Title in Canada: A Growing Space for the United Nations Declaration on the Rights of Indigenous Peoples. *Vibrant: Virtual Brazilian Anthropology*, 18, e18703. <https://doi.org/10.1590/1809-43412021v18a703>
 54. Neshovski, R. (n.d.). UN SDGs. United Nations Sustainable Development. Retrieved 12 July 2024, from <https://www.un.org/sustainabledevelopment/>
 55. Nightingale, E., & Richmond, C. A. M. (2022). Building structures of environmental repossession to reclaim land, self-determination and Indigenous wellness. *Health & Place*, 73, 102725.

<https://doi.org/10.1016/j.healthplace.2021.102725>

56. Nikolakis, W. (2022). Reconciliation in the woods? Three pathways towards forest justice. *Canadian Journal of Forest Research*, 52(8), 1154–1164. <https://doi.org/10.1139/cjfr-2022-0046>
57. Nishiiyuu Council of Elders. (2021). What You Do to Eeyou Istchee (Our Land), You Do to Eeyouch (Our People)”. <https://docslib.org/doc/12186762/what-you-do-to-eeyou-istchee-our-land-you-do-to-eeyouch-our-people>
58. Nygren, A., & Wayessa, G. (2018). At the intersections of multiple marginalisations: Displacements and environmental justice in Mexico and Ethiopia. *Environmental Sociology*, 4(1), 148–161. <https://doi.org/10.1080/23251042.2017.1419418>
59. Office of the High Commissioner for Human Rights. (2007, September 13). United Nations Declaration on the Rights of Indigenous Peoples. United Nations Human Rights. <https://www.ohchr.org/en/indigenous-peoples/un-declaration-rights-indigenous-peoples>
60. Oliveira, F. (2021). Indigenous Legal Resurgence as a Path to Reconciliation: Three Case Studies. *Vibrant: Virtual Brazilian Anthropology*, 18, e18706. <https://doi.org/10.1590/1809-43412021v18a706>
61. O’Sullivan, D. (2023). Indigenous Peoples: Policy, Culture and the Sustainable Development Goals. In D. O’Sullivan (Ed.), *Indigeneity, Culture and the UN Sustainable Development Goals* (pp. 39–66). Springer Nature. https://doi.org/10.1007/978-981-99-0581-2_3
62. Papillon, M., & Rodon, T. (2020). The Transformative Potential of Indigenous-Driven Approaches to Implementing Free, Prior and Informed Consent: Lessons from Two Canadian Cases. *International Journal on Minority and Group Rights*, 27(2), 314–335. <https://doi.org/10.1163/15718115-02702009>
63. Pellow, D. (2020). What is critical environmental justice? *Journal of Environmental Studies and Sciences*, 10(2), 210–211. <https://doi.org/10.1007/s13412-019-00575-8>
64. Petzold, J., Andrews, N., Ford, J. D., Hedemann, C., & Postigo, J. C. (2020). Indigenous knowledge on climate change adaptation: A global evidence map of academic literature. *Environmental Research Letters*, 15(11), 113007. <https://doi.org/10.1088/1748-9326/abb330>
65. Pickering, C., & Byrne, J. (2014). The benefits of publishing systematic quantitative literature reviews for PhD candidates and other early-career researchers. *Higher Education Research & Development*, 33(3), 534–548. <https://doi.org/10.1080/07294360.2013.841651>
66. Pickering, C., & Morrison, C. (2022). Systematic Quantitative Literature Reviews. In R. Dekkers, L. Carey, & P. Langhorne, *Making Literature Reviews Work: A Multidisciplinary Guide to Systematic Approaches* (pp. 336–344). Springer International Publishing. <https://doi.org/10.1007/978-3-030-90025-0>
67. Reed, G., Brunet, N. D., McGregor, D., Scurr, C., Sadik, T., Lavigne, J., & Longboat, S. (2022). Toward Indigenous visions of nature-based solutions: An exploration into Canadian federal climate policy. *Climate Policy*, 22(4), 514–533. <https://doi.org/10.1080/14693062.2022.2047585>
68. Reid, M., Collins, M. L., Hall, S. R. J., Mason, E., McGee, G., & Frid, A. (2022). Protecting our coast for everyone’s future: Indigenous and scientific knowledge support marine spatial protections proposed by Central Coast First Nations in Pacific Canada. *People and Nature*, 4(5), 1052–1070. <https://doi.org/10.1002/pan3.10380>

69. Robinson, J. M., Gellie, N., MacCarthy, D., Mills, J. G., O'Donnell, K., & Redvers, N. (2021). Traditional ecological knowledge in restoration ecology: A call to listen deeply, to engage with, and respect Indigenous voices. *Restoration Ecology*, 29(4), e13381. <https://doi.org/10.1111/rec.13381>
70. Rogers, A., Castree, N., & Kitchin, R. (2013). A Dictionary of Human Geography. In *A Dictionary of Human Geography*. Oxford University Press. <https://www.oxfordreference.com/display/10.1093/acref/9780199599868.001.0001/acref-9780199599868>
71. Schwientek, S. (2023, June 27). June is National Indigenous History Month but how did it come to be? CBC News. <https://www.cbc.ca/news/indigenous/june-national-indigenous-history-month-how-it-come-to-be-1.6889287>
72. Scott, J. (2015). A Dictionary of Sociology. In *A Dictionary of Sociology*. Oxford University Press. <https://www.oxfordreference.com/display/10.1093/acref/9780199683581.001.0001/acref-9780199683581>
73. Short, D., & Lennox, C. (Eds.). (2018). *Handbook of Indigenous Peoples' Rights*. Routledge. <https://doi.org/10.4324/9780203119235>
74. Smith, J. A., & Mitchell, T. L. (2020). Development of an UNDRIP Compliance Assessment Tool: How a Performance Framework Could Improve State Compliance. *The International Indigenous Policy Journal*, 11(2), 1–23. <https://doi.org/10.18584/iipj.2020.11.2.10713>
75. Spiegel, S. J., Thomas, S., O'Neill, K., Brondgeest, C., Thomas, J., Beltran, J., Hunt, T., & Yassi, A. (2020). Visual Storytelling, Intergenerational Environmental Justice and Indigenous Sovereignty: Exploring Images and Stories amid a Contested Oil Pipeline Project. *International Journal of Environmental Research and Public Health*, 17(7), Article 7. <https://doi.org/10.3390/ijerph17072362>
76. Temper, L. (2019). Blocking pipelines, unsettling environmental justice: From rights of nature to responsibility to territory. *Local Environment*, 24(2), 94–112. <https://doi.org/10.1080/13549839.2018.1536698>
77. Tomlinson, K. (2019). Indigenous rights and extractive resource projects: Negotiations over the policy and implementation of FPIC. *The International Journal of Human Rights*, 23(5), 880–897. <https://doi.org/10.1080/13642987.2017.1314648>
78. Tran, T. C., Neasloss, D., Kitsoo/Xai'xais Stewardship Authority, Bhattacharyya, J., & Ban, N. C. (2020). “Borders don't protect areas, people do”: Insights from the development of an Indigenous Protected and Conserved Area in Kitsoo/Xai'xais Nation Territory. *FACETS*, 5(1), 922–941. <https://doi.org/10.1139/facets-2020-0041>
79. Transform landmark Indigenous rights declaration into reality: UN General Assembly President | UN News. (2024, April 17). News.Un.Org. <https://news.un.org/en/story/2024/04/1148691>
80. Tsuji, S. R. J. (2022). Canada's Impact Assessment Act, 2019: Indigenous Peoples, Cultural Sustainability, and Environmental Justice. *Sustainability*, 14(6), Article 6. <https://doi.org/10.3390/su14063501>
81. UN Department of Economic and Social Affairs. (n.d.). Indigenous Peoples at the United Nations | Division for Inclusive Social Development (DISD). Retrieved 3 July 2024, from

<https://social.desa.un.org/issues/indigenous-peoples/indigenous-peoples-at-the-united-nations>

82. UNEP. (2020, August 6). Indigenous Peoples and the nature they protect. UNEP.
<http://www.unep.org/news-and-stories/story/indigenous-peoples-and-nature-they-protect>
83. Veracini, L. (2011). Introducing settler colonial studies. *Settler Colonial Studies*, 1(1), 1–12.
<https://doi.org/10.1080/2201473X.2011.10648799>
84. Veracini, L. (2021). Settler Colonialism. In I. Ness & Z. Cope (Eds.), *The Palgrave Encyclopedia of Imperialism and Anti-Imperialism* (pp. 2412–2417). Springer International Publishing.
https://doi.org/10.1007/978-3-030-29901-9_26
85. Wehrmann, B. (2008). *Land Conflicts: A practical Guide to Dealing with Land Disputes*. Deutsche Gesellschaft für Technische Zusammenarbeit. <https://dlc.dlib.indiana.edu/dlc/handle/10535/5409>
86. Wilson, N. J., Harris, L. M., Joseph-Rear, A., Beaumont, J., & Satterfield, T. (2019). Water is Medicine: Reimagining Water Security through Tr’ondëk Hwëch’in Relationships to Treated and Traditional Water Sources in Yukon, Canada. *Water*, 11(3), Article 3.
<https://doi.org/10.3390/w11030624>
87. Wong, C., Ballegooyen, K., Ignace, L., Johnson, M. J. (Gùdia), & Swanson, H. (2020). Towards reconciliation: 10 Calls to Action to natural scientists working in Canada. *FACETS*, 5(1), 769–783.
<https://doi.org/10.1139/facets-2020-0005>
88. Zeebroeck, S. V. (2022, October 6). What Countries Grant Legal Rights to Nature And Why? Earth.Org. <https://earth.org/nature-rights/>

9 Appendices

9.1 Appendix A. Keywords

Basic keyword	Synonyms and related concepts
Indigenous	<p>“Indigeniz*” OR “Indigenous communit*” OR “Indigenous group*” OR “Indigenous people*” OR “Indigenous knowledge” OR “Indigenous science” OR “Indigenous data” OR “Indigenous right*” OR “Indigenous movement*” OR “Indigenous manag*” OR “Indigenous health” OR “native people*” OR “native commun*” OR “native knowledge” OR “traditional knowledge” OR “traditional ecological knowledge” OR “traditional environmental knowledge” OR “traditional science” OR “primitive* people*” OR “primitive* communit*” OR “primitive* knowledge” OR “subaltern people*” OR “subaltern communit*” OR “subaltern knowledge” OR “subaltern science” OR “aboriginal*” OR “maori” OR “inuit” OR “tribe*” OR “tribalism”</p>
climate	<p>“changing climate” OR “climat change*” OR “climate risk*” OR “climate variabilit*” OR “climate extrem*” OR “climate uncertain*” OR “natur*” OR “natural disaster*” OR “disaster*” OR “climate hazard*” OR “hazard*” OR “resilien*” OR “vulnerab*” OR “sustain*” OR “anthropo*” OR “global warming” OR “temperature ris*” OR “greenhouse gas*” OR “environment*” OR “environmental degradation” OR “environmental sustainability” OR “planet” OR “earth” OR “ecosystem*” OR “ecolog*” OR “conservation” OR “preservation” OR “wildlife” OR “species” OR “habitat” OR “biodiversity” OR “extinction” OR “deforestation” OR “forest*” OR “bushfire” OR “wildfire” OR “sea level ris*” OR “flood*” OR “desertification” OR “drought*” OR “heat wave”</p>
injustice	<p>“injustice*” OR “justice*” OR “unjust” OR “marginali*” OR “unequal*” OR “inequit*” OR “oppress*” OR “environmental oppression” OR “environmental justice*” OR “environmental injustice*” OR “environmental equit*” OR “environmental equalit*” OR “social justice*” OR “social inclusion” OR “distributive justice*” OR “procedural justice*” OR “corrective justice*” OR “recognitional justice*” OR “restorative justice*” OR “economic justice*” OR “epistemic justice*” OR “human right*” OR “gender equalit*” OR “racis*” OR “discriminat*” OR “colonialism” OR “decoloniali*” OR “subjugat*” OR “bigot*” OR “intersectional” OR “intersectionalism”</p>
governance	<p>“govern*” OR “environmental governance” OR “politics” OR “polic*” OR “environmental polic*” OR “climate change polic*” OR “local climate change plan*” OR “climate mitigat*” OR “climate adaptat*” OR “mitigat*” OR “adapt*” OR “local adaptation” OR “environmental decision-mak*” OR “climate change decision-mak*” OR “decision-mak*” OR “implement*” OR “democra*” OR “leader*” OR “power*” OR “empower*” OR “authorit*” OR “institution*” OR “manag*” OR “organi*” OR “corporat*” OR “participat*” OR “regulat*” OR “self-determination” OR “sovereign*” OR “independen*” OR “autonom*”</p>
land conflict	<p>"land conflict*" OR "land grab*" OR "agrarian conflict*" OR "land right*" OR "land management" OR "land heritage" OR "land relationship" OR "land dispossession" OR "dispossession of land*" OR "settler colonialis*" OR "land coloni*" OR "private property" OR "property grab*" OR "stolen land" OR "territor*" OR "territory grab*" OR "unceded territor*" OR "unceded land*" OR "land claim*" OR "land question*" OR "land acquisition" OR "land theft" OR "resource extract*" OR "extractivism" OR "usurpation" OR "usurped land*" OR "land appropriation" OR "land expropriation" OR "land seizure*" OR "land encroachment" OR "forced eviction*" OR "resource grab*"</p>

9.2 Appendix B. Search strings

9.2.1 Search String of the First Round

TITLE-ABS-KEY (("Indigeniz*" OR "Indigenous communit*" OR "Indigenous group*" OR "Indigenous people*" OR "Indigenous knowledge" OR "Indigenous science" OR "Indigenous data" OR "Indigenous right*" OR "Indigenous movement*" OR "Indigenous manag*" OR "Indigenous health" OR "native people*" OR "native commun*" OR "native knowledge" OR "traditional knowledge" OR "traditional ecological knowledge" OR "traditional environmental knowledge" OR "traditional science" OR "primitive* people*" OR "primitive* communit*" OR "primitive* knowledge" OR "subaltern people*" OR "subaltern communit*" OR "subaltern knowledge" OR "subaltern science" OR "aboriginal*" OR "maori" OR "inuit" OR "tribe*" OR "tribalism") **AND** ("changing climate" OR "climat change*" OR "climate risk*" OR "climate variabilit*" OR "climate extrem*" OR "climate uncertaint*" OR "natur*" OR "natural disaster*" OR "disaster*" OR "climate hazard*" OR "hazard*" OR "resilien*" OR "vulnerab*" OR "sustain*" OR "anthropo*" OR "global warming" OR "temperature ris*" OR "greenhouse gas*" OR "environment*" OR "environmental degradation" OR "environmental sustainability" OR "planet" OR "earth" OR "ecosystem*" OR "ecolog*" OR "conservation" OR "preservation" OR "wildlife" OR "species" OR "habitat" OR "biodiversity" OR "extinction" OR "deforestation" OR "forest*" OR "bushfire" OR "wildfire" OR "sea level ris*" OR "flood*" OR "desertification" OR "drought*" OR "heat wave") **AND** ("injustice*" OR "justice*" OR "unjust" OR "marginali*" OR "unequal*" OR "inequit*" OR "oppress*" OR "environmental oppression" OR "environmental justice*" OR "environmental injustice*" OR "environmental equit*" OR "environmental equalit*" OR "social justice*" OR "social inclusion" OR "distributive justice*" OR "procedural justice*" OR "corrective justice*" OR "recognitional justice*" OR "restorative justice*" OR "economic justice*" OR "epistemic justice*" OR "human right*" OR "gender equalit*" OR "racis*" OR "discriminat*" OR "colonialism" OR "decoloniali*" OR "subjugat*" OR "bigot*" OR "intersectional" OR "intersectionalism") **AND** ("govern*" OR "environmental governance" OR "politics" OR "polic*" OR "environmental polic*" OR "climate change polic*" OR "local climate change plan*" OR "climate mitigat*" OR "climate adaptat*" OR "mitigat*" OR "adapt*" OR "local adaptation" OR "environmental decision-mak*" OR "climate change decision-mak*" OR "decision-mak*" OR "implement*" OR "democra*" OR "leader*" OR "power*" OR "empower*" OR "authorit*" OR "institution*" OR "manag*" OR "organi*" OR "corporat*" OR "participat*" OR "regulat*" OR "self-determination" OR "sovereign*" OR "independen*" OR "autonom*") **AND** (**LIMIT-TO** (OA,"all")) **AND** (**LIMIT-TO** (PUBYEAR,2023) OR **LIMIT-TO** (PUBYEAR,2022) OR **LIMIT-TO** (PUBYEAR,2021) OR **LIMIT-TO** (PUBYEAR,2020) OR **LIMIT-TO** (PUBYEAR,2019) OR **LIMIT-TO** (PUBYEAR,2018) OR **LIMIT-TO** (PUBYEAR,2017) OR **LIMIT-TO** (PUBYEAR,2016) OR **LIMIT-TO** (PUBYEAR,2015) OR **LIMIT-TO** (PUBYEAR,2014) OR **LIMIT-TO** (PUBYEAR,2013) OR **LIMIT-TO** (PUBYEAR,2012) OR **LIMIT-TO** (PUBYEAR,2011) OR **LIMIT-TO** (PUBYEAR,2010) OR **LIMIT-TO** (PUBYEAR,2009) OR **LIMIT-TO** (PUBYEAR,2008) OR **LIMIT-TO** (PUBYEAR,2007)) **AND** (**LIMIT-TO** (DOCTYPE,"ar") OR **LIMIT-TO** (DOCTYPE,"re") OR **LIMIT-TO** (DOCTYPE,"ch") OR **LIMIT-TO** (DOCTYPE,"bk"))

9.2.2 Search String of the Second Round

TITLE-ABS-KEY (("Indigeniz*" OR "Indigenous communit*" OR "Indigenous group*" OR "Indigenous people*" OR "Indigenous knowledge" OR "Indigenous science" OR "Indigenous data" OR "Indigenous right*" OR "Indigenous movement*" OR "Indigenous manag*" OR "Indigenous health" OR "native people*" OR "native commun*" OR "native knowledge" OR "traditional knowledge" OR "traditional ecological knowledge" OR "traditional environmental knowledge" OR "traditional science" OR "primitive* people*" OR "primitive* communit*" OR "primitive* knowledge" OR "subaltern people*" OR "subaltern communit*" OR "subaltern knowledge" OR "subaltern science" OR "aboriginal*" OR "maori" OR "inuit" OR "tribe*" OR "tribalism") **AND** ("injustice*" OR "justice*" OR "unjust" OR "marginali*" OR "unequal*" OR "inequit*" OR "oppress*" OR "environmental oppression" OR "environmental justice*" OR "environmental injustice*" OR "environmental equit*" OR "environmental equalit*" OR "social justice*" OR "social inclusion" OR "distributive justice*" OR "procedural justice*" OR "corrective justice*" OR "recognitional justice*" OR "restorative justice*" OR "economic justice*" OR "epistemic justice*" OR "human right*" OR "gender equalit*" OR "racis*" OR "discriminat*" OR "colonialism" OR "decoloniali*" OR "subjugat*" OR "bigot*" OR "intersectional" OR "intersectionalism" OR "land grab*") **AND** ("land grab*" OR "land conflict*" OR "agrarian conflict*" OR "land right*" OR "land management" OR "land heritage" OR "land relationship" OR "land dispossession" OR "dispossession of land*" OR "settler colonialis*" OR "land coloni*" OR "private property" OR "property grab*" OR "stolen land" OR "territor*" OR "territory grab*" OR "unceded territor*" OR "unceded land*" OR "land claim*" OR "land question*" OR "land acquisition" OR "land theft" OR "resource extract*" OR "extractivism" OR "usurpation" OR "usurped land*" OR "land appropriation" OR "land expropriation" OR "land seizure*" OR "land encroachment" OR "forced eviction*" OR "resource grab*") **AND** ("Canad*") **AND** (**LIMIT-TO** (OA,"all")) **AND** (**LIMIT-TO** (PUBYEAR,2023) OR **LIMIT-TO** (PUBYEAR,2022) OR **LIMIT-TO** (PUBYEAR,2021) OR **LIMIT-TO** (PUBYEAR,2020) OR **LIMIT-TO** (PUBYEAR,2019) OR **LIMIT-TO** (PUBYEAR,2018) OR **LIMIT-TO** (PUBYEAR,2017) OR **LIMIT-TO** (PUBYEAR,2016) OR **LIMIT-TO** (PUBYEAR,2015) OR **LIMIT-TO** (PUBYEAR,2014) OR **LIMIT-TO** (PUBYEAR,2013) OR **LIMIT-TO** (PUBYEAR,2012) OR **LIMIT-TO** (PUBYEAR,2011) OR **LIMIT-TO** (PUBYEAR,2010) OR **LIMIT-TO** (PUBYEAR,2009) OR **LIMIT-TO** (PUBYEAR,2008) OR **LIMIT-TO** (PUBYEAR,2007)) **AND** (**LIMIT-TO** (DOCTYPE,"ar") OR **LIMIT-TO** (DOCTYPE,"re") OR **LIMIT-TO** (DOCTYPE,"ch") OR **LIMIT-TO** (DOCTYPE,"bk")))