

Hydro Dams and Environmental Justice for Indigenous People. A Comparison of
Environmental Decision-Making in Canada and Brazil

by

Rebeca Macias Gimenez
LL.B, Universidade Federal de Minas Gerais, 2005
LL.M, University of Calgary, 2010

A Dissertation Submitted in Partial Fulfillment
of the Requirements for the Degree of

DOCTOR OF PHILOSOPHY

in the Department of Law

© Rebeca Macias Gimenez, 2021
University of Victoria

All rights reserved. This Dissertation may not be reproduced in whole or in part, by
photocopy or other means, without the permission of the author.

We acknowledge with respect the Lekwungen peoples on whose traditional territory the
university stands and the Songhees, Esquimalt and WSÁNEĆ peoples whose historical
relationships with the land continue to this day.

Supervisory Committee

Hydro Dams and Environmental Justice for Indigenous People. A Comparison of
Environmental Decision-Making in Canada and Brazil

by

Rebeca Macias Gimenez
LL.B, Universidade Federal de Minas Gerais, 2005
LL.M, University of Calgary, 2010

Supervisory Committee

Professor Deborah Curran, Department of Law
Supervisor

Dr. Pooja Parmar, Department of Law
Departmental Member

Dr. Michele-Lee Moore, Department of Geography
Outside Member

Abstract

This research project focuses on decision-making about large hydropower dams, particularly the process and outcomes of impact assessment, involving state, corporations, and local Indigenous communities. The objective of the study is to investigate whether state-led impact assessment, as one tool of regulatory decision-making, can be a way to address environmental justice concerns for Indigenous peoples affected by natural resource infrastructure. The core of this research is a case study comparison between the Belo Monte dam (Brazil) and Site C dam (Canada) to examine the effectiveness of environmental impact assessment (EIA) and decision-making. I analyse these processes' ability to address the inequities caused by disparate adverse effects of dams on Indigenous peoples. Despite evidence of the impacts of large dams on Indigenous peoples, there is limited literature on their experiences with large hydropower projects and their decision-making processes, and mechanisms that would account for Indigenous peoples' experiences. This research aims to fill in that gap in the literature by exposing the limitations of impact assessment and proposing recommendations for environmental decision-making to address Indigenous peoples' concerns and experiences. I start with a review of the development of the environmental justice (EJ) literature as the research's analytical framework. Environmental justice focuses on diagnosing the inequities caused to localized communities under the argument of a necessary 'smaller evil,' so that the larger society may benefit from natural resources development. However, the research participants' experiences pointed to the need to revise the EJ framework towards a more integral approach to environmental decision-making, recognising the fundamental relationship between land and human beings. This research project concludes that EJ for Indigenous peoples helps reinstate decision-making purposes – evaluating the impacts, proposing alternatives to projects, promoting transparency and accountability, and considering the possibility of rejecting projects – when done within a genuine government-to-government collaborative framework between state and Indigenous governments.

Table of Contents

Supervisory Committee	ii
Abstract.....	iii
Table of Contents.....	iv
List of Figures	viii
Acknowledgments.....	ix
Dedication	x
Chapter 1: Introduction	1
1. Introduction.....	1
2. The Impacts of Hydropower Dams and Adverse Effects on Indigenous People.....	3
3. State Environmental Impact Assessment of and Decision-Making about Dams	9
4. Environmental Justice.....	11
5. Structure of the Dissertation	15
Chapter 2: Research Methodology.....	20
1. Introduction.....	20
1.1. Chapter organization.....	21
1.2. Literature review.....	21
1.3. The concept of <i>environment</i> and <i>natural resource</i> in this research project.....	23
1.4. The concept of <i>development</i> in this research project	25
1.5. The concept of <i>equity</i> in this research project	26
1.6. The concept of <i>reconciliation</i> and the relevance of this research project to advance reconciliation	27
1.7. Why researching colonial law?.....	28
1.8. Positionality: Locating the researcher in the research project	29
2. Research Design.....	31
3. Research Analytical Framework.....	32
3.1. Environmental justice literature	32
3.2. Why using environmental justice and not a sustainability framework?	35
3.4. Why using environmental justice and not a political ecology framework?.....	36
3.5. Why using environmental justice and not Indigenous resurgence and sovereignty frameworks?	37
4. Comparative Case Study Methodology	39
4.1. Why these case studies?.....	42
4.2. Conducting empirical research	44
4.3. Field questions	46
5. Conclusion	48
Chapter 3: Literature Review: Environmental Justice in Impact Assessment and Decision- Making.....	50
1. Introduction: Situating the Chapter in the Dissertation	50
2. Environmental Decision-Making.....	52
2.1. General Concept, Purpose, and Challenges	52
2.2. Knowledge Selection in Environmental Decision-making.....	55
2.3. Public Participation in Environmental Decision-making	58
3. Environmental Impact Assessment.....	61

3.1. Concept and Purpose.....	61
3.2. General Environmental Impact Assessment Stages.....	64
3.3. Public Participation in EIA	65
3.4. Consultation with Indigenous Peoples.....	67
3.5. Free, Prior, and Informed Consent.....	69
4. Critiques to Environmental Decision-making and EIA	72
5. Environmental Justice.....	75
5.1. The development of an environmental justice literature.....	76
5.2. Critiques of environmental justice in the environmental decision-making literature	85
5.3. Environmental justice for Indigenous peoples in natural resources decision-making.....	88
6. Proposing Equity Principles by Which to Assess EIA	97
Chapter 4: Belo Monte Hydropower Project Impact Assessment and Decision-Making	100
1. Introduction.....	100
1.1. Overview and goals of the chapter.....	100
1.2. Brief historical background of development in the Brazilian Amazon	106
1.3. Belo Monte project and biophysical impacts.....	110
2. Overview of the Legal and Regulatory Regime Applied to the Belo Monte Case Study	117
2.1. Constitutional division of powers and legal principles.....	117
2.2. Environmental laws	119
2.3. Indigenous rights.....	121
2.4. Federal impact assessment and environmental decision-making regulatory framework	125
3. Belo Monte Impact Assessment and Decision-making	131
4. Belo Monte in the Courts.....	136
5. Data results.....	139
5.1. Recognition aspects of environmental justice in impact assessment and decision-making.....	141
5.2. Procedural aspects of environmental justice in impact assessment and decision-making.....	147
5.3. Distributional aspects of environmental justice in impact assessment and decision-making.....	155
5.4. Summary of the data results.....	160
5. Conclusion	162
Chapter 5: Site C Hydropower Project Impact Assessment and Decision-Making.....	164
1. Introduction.....	164
1.1. Overview and goals of the chapter.....	164
1.2. Brief historical background of development in the Northeast of BC	171
1.3. The Site C project and biophysical changes	174
2. Overview of the Legal and Regulatory Regime Applicable to the Site C Case Study	177
2.1. Constitutional division of powers	178
2.2. Aboriginal Constitutional and Treaty rights	179

2.3. Environmental law	183
2.4. Federal and provincial impact assessment regulatory frameworks	184
3. Site C Environmental Assessment and Decision-Making	190
3.1. Pre-panel stage	190
3.2. Joint review panel stage	196
3.3. Post-panel stage	199
4. Site C in the Courts	201
5. Data results.....	205
5.1. Recognition aspects of environmental justice in impact assessment and decision-making.....	206
5.2. Procedural aspects of environmental justice in impact assessment and decision-making.....	212
5.3. Distributional aspects of environmental justice in impact assessment and decision-making.....	224
5.4. Summary of the data results.....	230
6. Conclusion	231
Chapter 6: Analysis of the Data Results	233
1. Introduction.....	233
2. Comparison of the Historical and Political Contexts of Site C and Belo Monte Case Studies.....	234
3. Comparison of the Legal and Regulatory Regimes	236
4. Comparison of the Regulatory Processes and Court Cases	238
5. Analysis of the Data Results	240
5.1. Recognition.....	241
5.2. Procedural justice.....	244
5.3. Distributional justice.....	247
6. Law Reform and Environmental Justice Issues in the Case Studies	250
6.1. British Columbia Environmental Assessment Act, 2018	250
6.2. Canada Impact Assessment Act, 2019.....	253
6.3. Environmental assessment and decision-making law reform proposals in Brazil	255
7. Conclusion	258
Chapter 7: Conclusion.....	262
1. Introduction.....	262
2. Recommendations for State Laws and Policies on Impact Assessment and Environmental Decision-making	264
2.1. Recognition of Indigenous nations as jurisdictions	264
2.2. Compliance with existing Indigenous and state-led plans and policies for the use of lands and waters.....	264
2.3. Independent third-party bodies with equal participation of Indigenous nations and the state, with shared decision-making to jointly design and conduct the process	264
2.4. Justified and accountable state governments' decisions.....	265
2.5. Independent third-party bodies to adjudicate conflict resolutions related to Treaty and constitutional Aboriginal/Indigenous rights infringement regarding development proposals' decision-making.....	266

2.6. Strategic and Regional Environmental Assessment to integrate Indigenous-led land use plans and watershed plans and to ensure priority to Indigenous-led development initiatives	266
3. Conclusion: Can Impact Assessment Account for What It has Traditionally Dismissed?	266
Bibliography	269
Appendix A: Glossary.....	310

List of Figures

Figure 1: W.A.C Bennett Dam and the Williston Reservoir in British Columbia, Canada. The seventh-largest reservoir in the world, built in 1968 without an impact assessment and consultation with Indigenous people. Source: Author's file.	4
Figure 2: Flooding of organic materials in the Belo Monte reservoir, Pará, Brazil, which cause water contamination by mercury. Source: Author's file.	5
Figure 3: The story illustrates how dam building policy-making has historically focused on projects' economic advantages, while experiences show that they cause damage to local economies. Source: CNBC.....	6
Figure 4: Belo Monte power plant. April 19, 2018. At that time, there were ten turbines installed and only three of them generating energy. Source: Author's personal files. ...	111
Figure 5: Environmental assessment and decision-making process conducted by IBAMA	130
Figure 6: Artist rendering of the proposed Site C project. Source: BC Hydro Environmental Impact Statement Executive Summary	175
Figure 7 Environmental Assessment Process Managed by the Agency, according to the Canadian Environmental Assessment Act, 2012, with expert review panel.	189
Figure 8:Recommended Joint environmental decision-making process.	268
Map 1: Location of the Belo Monte Dam. Source: International Rivers.....	111
Map 2: Indigenous territories within the Area of Influence of the Belo Monte project. Source: Norte Energia.....	116
Map 3: Treaty 8 territory and Nations. Source: Joint Expert Review Panel Report.....	170
Map 4: Current Use of Lands and Resources for Traditional Purposes. Source: BC Hydro.	192

Acknowledgments

This project would not have become a reality without the contribution of very special people and institutions. I would like to acknowledge the support of my supervisory committee – Professors Deborah Curran, Pooja Parmar, and Michele-Lee Moore, who have committed their time and energy to carefully read the many iterations of this dissertation and provide thorough feedback. I would like to particularly thank Professor Deborah Curran for her dedicated supervision. Her advice, confidence, and financial support have helped me to stay focused and encouraged throughout the doctoral program. This dissertation has also benefited significantly from the reviews by the writing workshop group led by Professor Curran – my dear colleagues, Chinwe Nwanisobi, Kan Pongboonjun, and Murray Ball. My gratitude for the financial support from the Law Foundation of BC, the Centre for International Governance Innovation, the Real Estate Foundation, and the UVic Centre for Global Studies. A special thank you to the Centre for Global Studies for being a supportive community and my academic home for over three years, and to the Cedar Trees Institute, as we imagine better futures together. And thank you to all the dear friends and family members who have cheered me on.

Dedication

This work is dedicated to Bernardo, Manuela, and Gabriela,
for reminding me to treasure the most important things in life.

To my parents, Rachel and Guillermo.

To the Creator, my God, for the Earth's abundant beauty and life.

*'Let the heavens rejoice, let the earth be glad;
let the sea resound, and all that is in it.
Let the fields be jubilant, and everything in them;
let all the trees of the forest sing for joy.'*
(Psalms 96:11,12)

Chapter 1: Introduction

1. Introduction

Regulatory decision-making of natural resource development is often a ‘site of struggle’ with many competing interests involved.¹ More specifically, large hydroelectric projects represent some of those existing struggles, when considering, on the one hand, the effects that damming rivers causes to socio-ecological systems; and on the other hand, claims about energy demand, economic development, and corporate interests. Indigenous peoples’ close connection with and reliance on the rivers, lands, and ecosystems make those communities vulnerable to the environmental degradation caused by dams.² Simultaneously, the processes that states adopt to decide about dams often exclude the most affected people.

This research project focuses on decision-making about large hydropower dams, particularly the process and outcomes of impact assessment involving state, corporations, and local Indigenous communities. The objective of this research project is to investigate whether state-led impact assessment, as one tool of regulatory decision-making, can be a way to address environmental justice concerns for Indigenous peoples affected by natural resource infrastructure. The core of this research is a case study comparison between the Belo Monte dam (Brazil) and Site C dam (Canada) to examine the effectiveness of environmental impact assessment and decision-making. I analyse their ability to address the inequities caused by disparate adverse effects of dams on Indigenous peoples. Despite evidence of the impacts of large dams on Indigenous peoples, there is limited literature on their experiences with large hydropower dams and decision-making structures and mechanisms that would account for Indigenous peoples’ experiences. This research aims to fill in that gap in the literature by exposing the limitations of impact assessment and proposing recommendations for environmental decision-making to address Indigenous peoples’ concerns and experiences.

There are some studies on the adverse effects of dams on Indigenous peoples in Canada and Brazil.³ There are also studies on how the environmental decision-making

¹ See, e.g., Bob Jessop, “Two. States, state power, and state theory” in Jacques Bidet & Stathis Kouvelakis, eds, *Critical Companion to Contemporary Marxism Historical Materialism* (Leiden: Brill, 2008) 413; Macarena Gómez-Barris, *The Extractive Zone. Social Ecologies and Decolonial Perspectives* (London: Duke University Press, 2017).

² For the relationship between Indigenous peoples with lands and waters, see e.g., Aimée Craft, “Giving and receiving life from Anishinaabe nibi inaakonigewin (our water law) research” in Jocelyn Thorpe, Stephanie Rutherford & L Anders Sandberg, eds, *Methodological Challenges in Nature-Culture and Environmental History Research*, (London: Routledge, 2016) 105; John Borrows, “Living between Water and Rocks: First Nations, Environmental Planning and Democracy” (1997) 47:4 *The University of Toronto Law Journal* 417–468; Robert Yelkette-Clifford, “WSANEC Legal Theory and the Fuel Spill at SELEKTEL (Goldstream River) Special Issue - Indigenous Law and Legal Pluralism” (2015) 61:4 *McGill L J* 755–794; For the impacts of dams on the relationship of Indigenous peoples with the lands and waters across the world see *World Commission on Dams Final Report. A New Framework for Decision-Making*, by World Commission on Dams (London; Sterling, VA: World Commission on Dams, 2000) at 110–112.

³ See, e.g., Ismar Borges de Lima et al, “Hydroelectric Plants Construction, Rainforest Landscape Change, and Impacts on Indigenous, and Traditional Groups in Amazonia: From Balbina, Tucuruí to Belo Monte Contexts” in Walter Leal Filho, Victor T King & Ismar Borges de Lima, eds, *Indigenous*

processes exclude Indigenous peoples, not acknowledging their right to self-determination.⁴ This research project is unique because it demonstrates that Indigenous peoples' struggles in two different processes are comparable. There are similarities concerning the injustices generated by state laws and policies and the lack of consideration for Indigenous voices in decision-making processes.

This discussion is essential to create global alliances while pointing to the significance of local communities' voices regarding large projects. I start with a review of the development of the environmental justice (EJ) literature as the research's analytical framework. Environmental justice serves as an effective framework to diagnose the inequities caused to localized communities under the argument of a necessary 'smaller evil,' so that the larger society may benefit from natural resources development.⁵ However, the research participants' experiences inform a revision of the EJ framework towards a more integral approach to environmental justice, recognizing the fundamental relationship between land and human beings. This research project concludes that environmental justice for Indigenous peoples helps reinstate decision-making purposes – evaluating the impacts, proposing alternatives to projects, promoting transparency and accountability, and considering the possibility of rejecting projects – when done within a genuine collaborative framework between state and Indigenous governments.

In this introductory chapter, I describe the research problem of this dissertation. In section two of the chapter, I provide a brief overview of the impacts of large hydropower dams worldwide, especially the adverse effects on Indigenous peoples and their traditional territories. In section three, I outline the purpose of impact assessment of projects as a tool for environmental decision-making and critiques regarding its failures to address environmental justice concerns for Indigenous peoples. In section four, I introduce the environmental justice framework and its application to the adverse effects of large hydropower dams on Indigenous peoples. In section five, I outline the dissertation structure according to its chapters and respective research findings. Throughout the dissertation, based on the literature review and the fieldwork I conducted in Brazil and Canada, I indicate the limits of impact assessment to protect Indigenous peoples' rights and lifeways. I discuss the need for the environmental justice literature to address issues of self-determination for Indigenous peoples. And I make

Amazonia, Regional Development and Territorial Dynamics: Contentious Issues The Latin American Studies Book Series (Cham: Springer International Publishing, 2020) 397; William Huggins, "Pipelines, Mines, and Dams: Indigenous Literary Water Ecologies and the Fight for a Sustainable Future" (2017) 44:1 *Canadian Review of Comparative Literature / Revue Canadienne de Littérature Comparée* 54–67.

⁴ Maria Antonia Tigre & Sarah C Slinger, "A Voice in the Development of Amazonia: The Constitutional Rights to Participation of Indigenous Peoples" in Walter Leal Filho, Victor T King & Ismar Borges de Lima, eds, *Indigenous Amazonia, Regional Development and Territorial Dynamics: Contentious Issues* The Latin American Studies Book Series (Cham: Springer International Publishing, 2020) 7; Kathryn Tomlinson, "Indigenous rights and extractive resource projects: negotiations over the policy and implementation of FPIC" (2019) 23:5 *The International Journal of Human Rights* 880–897.

⁵ See, e.g., Gordon Walker, "Environmental justice, impact assessment and the politics of knowledge: The implications of assessing the social distribution of environmental outcomes" (2010) 30:5 *Environmental Impact Assessment Review* 312–318.

recommendations on how impact assessment and decision-making may better integrate Indigenous peoples' concerns with the approval of large dams.

2. The Impacts of Hydropower Dams and Adverse Effects on Indigenous People

Hydropower production has been growing consistently around the world since the 1950s. In many countries, dams have become a symbol of nation-building and national pride.⁶ By 1975 most developed countries had implemented laws and policies for the construction of large dams.⁷ A report by the International Hydropower Association shows that, in 2018, electricity generation from hydropower reached approximately two-thirds of the global renewable energy production. The total energy production capacity by hydropower dams currently in operation is estimated to be 21.8 gigawatts (GW), with a total installed capacity of 1,292 GW. China is now the largest hydropower producer globally, followed by Brazil, the United States, and Canada.⁸ There are currently more than 57,000 large hydropower dams (higher than fifteen meters tall) and 300 major dams (higher than one-hundred and fifty meters tall) in the world.⁹ The increase in the construction of large dams has gained more support in the last decade, considering critiques about fossil fuel extraction and the need to improve renewable energy sources in the face of growing concerns about climate change.¹⁰

While some characterize large dams as part of national interest and security,¹¹ “a modern feat of technical engineering that controls nature and brings progress,” others see dams as the destruction of rivers and ecosystems, which are critical support systems for human and non-human communities.¹² Dams have flooded over 400,000 km² (approximately the size of Sweden) and displaced forty to eighty million people worldwide.¹³ Large dams and their reservoirs impact lands and rivers both upstream and downstream from hydro projects.¹⁴ Dams inundate settlements, agricultural lands, common property hunting and gathering territories, and places of cultural value,

⁶ Bent Flyvbjerg, “What You Should Know About Megaprojects, and Why: An Overview” (2014) 45 *Project Management Journal* 6–19 at 7, 8.

⁷ Asit K Biswas, “Impacts of Large Dams: Issues, Opportunities and Constraints” (2012) *Impacts of Large Dams: A Global Assessment* 1–18.

⁸ *Hydropower Status Report*, by International Hydropower Association (London UK: International Hydropower Association, 2019) at 11.

⁹ International Rivers, “Questions and Answers About Large Dams”, *International Rivers* (website), online: <<https://www.internationalrivers.org/questions-and-answers-about-large-dams>>.

¹⁰ See, e.g., Robert Fletcher, “When Environmental Issues Collide: Climate Change and the Shifting Political Ecology of Hydroelectric Power” (2010) 5:1 *Peace & Conflict Review* 1–15.

¹¹ Ed Atkins, “Disputing the ‘National Interest’: The Depoliticization and Repoliticization of the Belo Monte Dam, Brazil” (2019) 11 *Water* 20.

¹² Rutgerd Boelens, Esha Shah & Bert Bruins, “Contested Knowledges: Large Dams and Mega-Hydraulic Development” (2019) 11:3 *Water* 416 at 18.

¹³ International Rivers, “Damming Statistics”, (22 October 2007), *International Rivers* (website), online: <<https://www.internationalrivers.org/damming-statistics>>.

¹⁴ For an interactive map on the distribution of dams around the world and their ecological effects on rivers see International Rivers, “The State of the World’s Rivers. Mapping the Health of the World’s Fifty Major River Basins”, (26 August 2014), *International Rivers* (website), online: <<https://www.internationalrivers.org/sites/default/files/worldsrivers/>>.

including burial sites. The reservoirs of dams also increase health risks for local communities by providing breeding habitat for vectors of water-borne diseases, such as malaria and schistosomiasis, and impairing the water quality with mercury contamination, caused by the flooding of organic materials, such as vegetation.¹⁵ Downstream, dams affect the river flows, water quality, and fish habitat, causing a reduction in access or availability of fish and other riverine resources critical for local communities' food and financial security.¹⁶ The World Commission on Dams has also indicated that dams have widened gender disparities in local communities either by imposing a disproportionate share of social costs on women or through an inequitable allocation of the benefits generated.¹⁷



Figure 1: W.A.C Bennett Dam and the Williston Reservoir in British Columbia, Canada. The seventh-largest reservoir in the world, built in 1968 without an impact assessment and consultation with Indigenous people. Source: Author's file.

¹⁵ Gabriela P F Arrifano et al, "Large-scale projects in the amazon and human exposure to mercury: The case-study of the Tucuruí Dam" (2018) 147 *Ecotoxicology and Environmental Safety* 299–305.

¹⁶ Marcus Beck, Andrea Claasen & Peter Hundt, "Environmental and livelihood impacts of dams: common lessons across development gradients that challenge sustainability" (2012) 10:1 *Int J River Basin Management* 73–92.

¹⁷ World Commission on Dams, *supra* note 2 at 114.



Figure 2: Flooding of organic materials in the Belo Monte reservoir, Pará, Brazil, which cause water contamination by mercury. Source: Author's file.

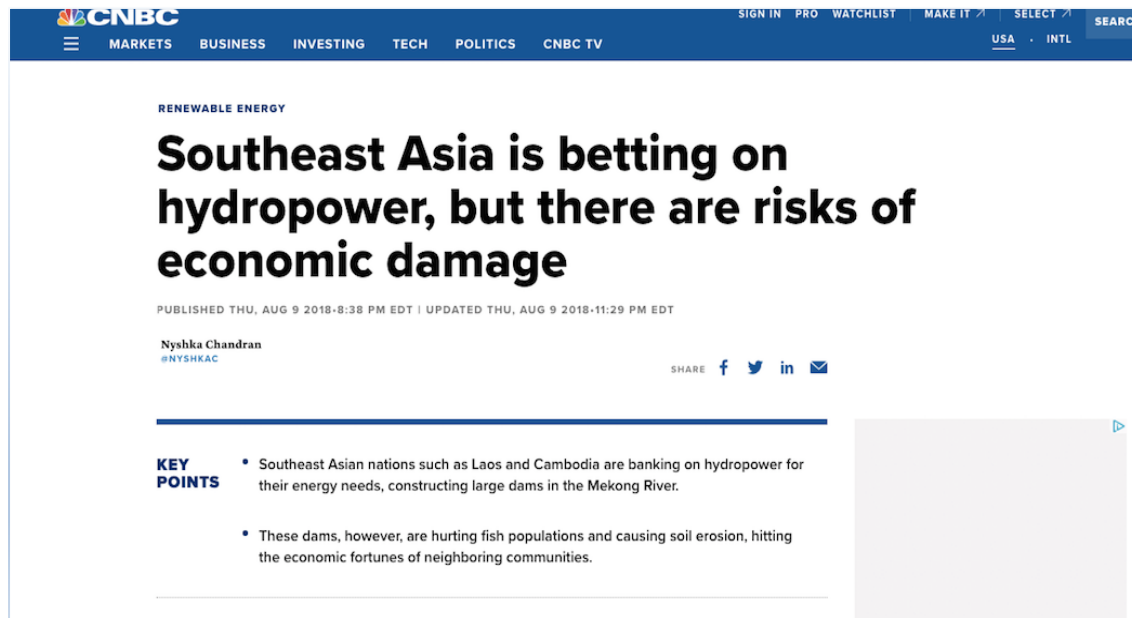


Figure 3: The story illustrates how dam building policy-making has historically focused on projects' economic advantages, while experiences show that they cause damage to local economies. Source: CNBC.¹⁸

¹⁸ Nyshka Chandran, "Southeast Asia is betting on hydropower, but there are risks of economic damage", *CNBC* (10 August 2018), online: <<https://www.cnbc.com/2018/08/10/hydropower-in-southeast-asia-dams-may-risk-economic-damage.html>>.

Large dams have had specific severe impacts on the lives, livelihoods, cultures, and spiritual existence of Indigenous peoples and have disproportionately and adversely affected Indigenous communities when in comparison to other social groups.¹⁹ The narrative that hydro dams promote development and economic growth has ignored the relationship that Indigenous peoples have with the land and waters,²⁰ disrupting the local interactions and traditional knowledge production that have helped sustain ecosystems' ecological health.²¹ In fact, large infrastructure projects do not deliver the economic development and job creation that they promise.²² Neither the promise of cheap electricity for local populations is fulfilled, as the energy produced is more likely to meet the industry's needs and dense urban areas.²³ Large dams cause multi-dimensional stress by affecting the mental and physical health of Indigenous communities that depend on the lands and the quality and quantity of water for their survival, livelihood, and ceremonies.²⁴

In Vietnam, for instance, the construction of the Yali Falls Dam, completed in 1998, caused flooding and disruption of river flow, affecting the livelihoods of fifty thousand people, mainly Indigenous people living downstream of the dam along the Se San River, a tributary of the Mekong, in Cambodia. In Laos, the Nam Theun 2 Dam, completed in 2010, flooded approximately 450 km² of forest, agricultural land, and settlements, resulting in the resettlement of about six thousand people belonging to various ethnic groups.²⁵ In Brazil, the Belo Monte dam inundated a total of 500 km² and displaced approximately twenty thousand people from different ethnic groups, including Indigenous people.²⁶ Indigenous

¹⁹ World Commission on Dams, *supra* note 2 at 110.

²⁰ Alexa Bingham, "Discourse of the Dammed: A study of the impacts of sustainable development discourse on indigenous peoples in the Brazilian Amazon in the context of the proposed Belo Monte hydroelectric dam" (2010) 4 *Polis Journal* 1–47 at 20.

²¹ Bibiana Duarte-Abadía, Rutgerd Boelens & Tatiana Roa-Avedaño, "Hydropower, Encroachment and the Re-patterning of Hydrosocial Territory: The Case of Hidrosogamoso in Colombia" (2015) 74:3 *Human Organization* 243–254 at 248.

²² Flyvbjerg, "What You Should Know About Megaprojects, and Why", *supra* note 6; Thomas Sikor et al, "Brokering justice: global indigenous rights and struggles over hydropower in Nepal" (2019) 40:3 *Canadian Journal of Development Studies / Revue canadienne d'études du développement* 311–329.

²³ Michael P Lawrence, "Damming Rivers, Damning Cultures" (2005) 30 *Am Indian L Review* 247–290; Alda Cristina Costa, "Vozes institucionais e os discursos de dominação: análise dos grandes projetos hidrelétricos na Amazônia1/ Institutional voices and discourses of domination: analysis of hydroelectric dam projects in the brazilian amazon" (2017) 24:2 *Revista FAMECOS*; Porto Alegre 1–22; Shirley Thompson, "Flooding of First Nations and Environmental Justice in Manitoba: Case Studies of the Impacts of the 2011 Flood and Hydro Development in Manitoba" (2015) 38:2 *Manitoba Law Journal* 220–259.

²⁴ Thayer Scudder, *The Future of Large Dams. Dealing with Social, Environmental and Institutional Costs* (London: Earthscan, 2005) at 24–26.

²⁵ S Robert Aiken & Colin H Leigh, "Dams and Indigenous Peoples in Malaysia: Development, Displacement and Resettlement" (2015) 97:1 *Geografiska Annaler: Series B, Human Geography* 69–93 at 73.

²⁶ Interamerican Association for Environmental Defense, "Inter-American Commission urges Brazil to address damages to indigenous peoples caused by Belo Monte Dam", (13 November 2018), *Interamerican Association for Environmental Defense (AIDA)* (blog), online: <<https://aida->

peoples affected by dams in Brazil have lost some (or all) of their livelihood from fishing and have had their traditional practices disturbed by the flooding of land and river flows changes.²⁷ When faced with the devastating changes from the Belo Monte dam, some Indigenous communities referred to the flooding of land as the end of their world.²⁸ In Chile, the Mapuche and the Pehuenche peoples' communities struggled with the construction of hydro dams in the Bío Bío River, which caused the extinction of some fish species and other animals important for Indigenous peoples' livelihood.²⁹ The government approved the dams in the Bío Bío River in violation of human rights and lack of proper access to information to Indigenous peoples.³⁰

In Canada, the trend of dam-building starting mid 20th century sidelined or completely ignored Indigenous peoples' interests, in the name of the 'common good', contributing to the destruction of local resources and economic opportunities the impoverishment of Indigenous communities.³¹ In regions with historic treaties in place, the colonial government had promised they would share the land and uphold agreements with Indigenous peoples for 'as long as the rivers run.' Nevertheless, the state has approved the construction of large dams under the pretext that energy production was a matter of public interest, that the national need for energy justified sacrificing particular local interests.³² Local communities often bear the project's risks and costs, while large urban centers receive most of the energy generation benefits.³³

International and domestic standards for decision-making about large dams recommend that state impact assessment practices evaluate all the social and environmental adverse effects of projects on Indigenous territories. If the dam is approved, the hydro company must propose ways to avoid, mitigate, or compensate for those effects.³⁴ The question that

americas.org/en/press/inter-american-commission-urges-brazil-address-damages-to-indigenous-peoples-caused-by-belo-monte>.

²⁷ Clarice Cohn, "Belo Monte e processos de licenciamento ambiental: As percepções e as atuações dos Xikrin e dos seus antropólogos" (2010) 2:2 *Revista de Antropologia Social dos Alunos do PPGAS-UFSCar* 224–251.

²⁸ Clarice Cohn, "O Fim do Mundo como o Conhecemos: Os Xikrin do Bacajá e a Barragem Belo Monte" in Clarice Cohn & João Pacheco de Oliveira, eds, *Belo Monte e a Questão Indígena* (Brasília: ABA Publicações, 2014) 253 at 253.

²⁹ Lorenzo Nesti, "The Mapuche-Pehuenche and the Ralco Dam on the Biobio River: The Challenge of Protecting Indigenous Land Rights" (2002) 9:1 *Int'l J on Minority & Group Rts* 1–40.

³⁰ Marcos A Orellana, "Indigenous Peoples, Energy and Environmental Justice: The Pangué/Ralco Hydroelectric Project in Chile's Alto BíoBío" (2005) 23:4 *Journal of Energy & Natural Resources Law* 511–528; Nesti, "The Mapuche-Pehuenche and the Ralco Dam on the Biobio River", *supra* note 29.

³¹ James B Waldram, *As Long as the Rivers Run: Hydroelectric Development and Native Communities in Western Canada* (Winnipeg: University of Manitoba Press, 1988) at 8.

³² *Ibid.* at 4, 172.

³³ Dayna Nadine Scott & Adrian A Smith, "'Sacrifice Zones' in the Green Energy Economy: Toward an Environmental Justice Framework" (2017) 62:3 *McGill Law Journal* 861–898.

³⁴ See, e.g., Thi Hanh Tien Nguyen et al, "Modelling Tools to Analyze and Assess the Ecological Impact of Hydropower Dams" (2018) 10:3 *Water* 259; Joseph F C DiMento & Helen Ingram, "Science and

remains, however, is whether state practices have been able to fulfill the objective of impact assessment, protecting Indigenous peoples' lifeways and ensuring that the decision properly respects the voices of the Indigenous peoples affected.

3. State Environmental Impact Assessment of and Decision-Making about Dams

Environmental and natural resource decision-making is the process through which a colonial government decides whether to grant permission for a natural resource development proposal or any activity that affects socio-ecological systems, including hydropower projects. Although state law provides rules and requirements for this review, it involves significant levels of discretionary powers by environmental decision-makers.³⁵ Environmental impact assessment (EIA) as a regulatory and policy framework for decision-making delivers standards and procedures for environmental decision-making of infrastructure projects with significant adverse environmental effects. Through an administrative process, the state government reviews all the potential social and environmental impacts of a project, analyses its costs and benefits, and decides whether to provide the project with a permit.³⁶ When granting a permit, the state government establishes the mitigation and compensation measures that the project proponents must accomplish and the conditions with which they must comply.³⁷ The objective of impact assessment, thus, is to assess the possible effects of a particular project, which is accomplished by gathering information and providing opportunities for participation of adversely affected communities and individuals to inform decision-makers and inform a decision about whether to approve a project. The legitimacy of an environmental impact assessment is through its procedural and participatory components.³⁸

While impact assessment must provide the technical standards and methods to predict and adequately deal with the impacts of large projects,³⁹ scholars have indicated that impact assessments are only predictions, mere hypotheses, unconfirmed until the dams become operational.⁴⁰ Studies show that even a comprehensive assessment can accurately forecast approximately 70 to 75% of the identified impacts in terms of time, space, and magnitude. Therefore, it is impossible to identify 25 to 30% of the impacts that will occur after the

Environmental Decision Making: The Potential Role of Environmental Impact Assessment in the Pursuit of Appropriate Information" (2005) 45:2 *Natural Resources Journal* 283–309.

³⁵ See, e.g., Chung-Lin Chen, "Institutional Roles of Political Processes, Expert Governance, and Judicial Review in Environmental Impact Assessment: A Theoretical Framework and a Case Study of Taiwan" (2013) 54:1 *Natural Resources Journal* 41–79.

³⁶ Michael M'Gonigle et al, "Taking Uncertainty Seriously: From Permissive regulation to Preventative Design in Environmental Decision-Making" (1994) 32:1 *Osgoode Hall Law Journal* 99–169.

³⁷ Neil Craik, *The International Law of Environmental Impact Assessment: Process, Substance and Integration* (Cambridge: Cambridge University Press, 2008) at 3, 4.

³⁸ Jane Holder, *Environmental Assessment. The Regulation of Decision-Making* (Oxford: Oxford University Press, 2006) at 24.

³⁹ Bingham, "Discourse of the Dammed", *supra* note 20 at 25.

⁴⁰ Biswas, "Impacts of Large Dams", *supra* note 7 at 13.

dams have become operational.⁴¹ This uncertainty puts into question the decisions that the state governments make to approve hydropower projects. For this reason, some argue that there is no such thing as an adequate assessment process that would consider and mitigate all social and environmental impacts of large dams.⁴²

The World Commission on Dams (WCD) 2000 Final Report indicated that the planning and evaluation of large dams have historically focused on technical parameters and narrow application of economic cost-benefit analyses, disregarding the interaction between social and environmental impacts.⁴³ This approach has caused a “[p]ervasive and systematic failure to assess the range of potential negative impacts and implement adequate mitigation, resettlement and development programmes for the displaced, and the failure to account for the consequences of large dams for downstream livelihoods have led to the impoverishment and suffering of millions.”⁴⁴ The WCD report also indicated that states and hydropower corporations often fail to recognise affected people and empower them to participate in the decision-making process.⁴⁵ One of the WCD report recommendations for improving decision-making was bringing to the table all of those whose rights are involved and who bear the risks associated with different options for water and energy resources development.⁴⁶ However, case studies demonstrate that, even when including the most affected people, impact assessment practices have been serving as a space to legitimize processes of exclusion of marginalized affected groups and validate policy decisions that had already been politically made.⁴⁷

One reason why impact assessment has not been realising its objective is that, through environmental decision-making policies, the colonial governments oversimplify the ways society functions in practice in order to facilitate natural resource development. In applying a ‘high modernist ideology,’ the state seeks to master nature through its confidence in scientific and technical progress, dismissing existing practical knowledge about nature.⁴⁸ Colonial governments conveniently ignore the nuances of how diverse societies, such as Indigenous societies, function in order to implement a universal regulatory and policy scheme to control natural resources. The state regulation of land and natural resources often do not acknowledge Indigenous peoples’ conception of mutual responsibility with and

⁴¹ *Ibid.* at 13.

⁴² Thayer Scudder, “The Good Megadam: Does It Exist, All Things Considered?” in Bent Flyvbjerg, ed, *The Oxford Handbook of Megaproject Management* (Oxford: Oxford University Press, 2017) 428 at 431.

⁴³ World Commission on Dams, *supra* note 2 at XXXII.

⁴⁴ *Ibid.* at XXXI, XXXII

⁴⁵ *Ibid.* at XXXI, XXXII

⁴⁶ *Ibid.* at XXVIII

⁴⁷ See e.g. Mariel Aguilar-Støen & Cecilie Hirsch, “Environmental Impact Assessments, local power and self-determination: The case of mining and hydropower development in Guatemala” (2015) 2:3 *The Extractive Industries and Society* 472–479; A Booth & N W Skelton, “We are fighting for ourselves’ - first nations’ evaluation of British Columbia and Canadian environmental assessment processes” (2011) 13:3 *Journal of environmental assessment policy and management* 367–404.

⁴⁸ James C Scott, *Seeing Like a State: How Certain Schemes to Improve the Human Condition Have Failed* (New Haven: Yale University Press, 1999) at 3, 4.

towards nature. It concentrates decision-making power on the colonial government's regulatory system.⁴⁹

While the construction and operation of large hydro dams disproportionately and adversely affect Indigenous peoples, the decision-making about those projects often does not sufficiently recognize Indigenous peoples' concerns with disparate adverse effects on their lifeways. Therefore, scholars and social and environmental movements have characterized Indigenous peoples' struggles around large dam construction as environmental justice issues.⁵⁰

4. Environmental Justice

Environmental justice (EJ) speaks to the injustice experienced by people who are disparately affected by the quality of the environment and by issues of procedural fairness and access to natural resources, partially because of systemic discrimination.⁵¹ While the environmental justice literature has its roots in issues of pollution affecting marginalized communities of urban centres in the United States, it has later expanded to discuss topics related to natural resource extraction and development in rural areas. This body of literature has served as a framework to identify the inequities that environmental decision-making imposes on localized, marginalized communities to benefit the larger society.⁵² The environmental justice literature has most recently and extensively also explored the inequity committed to Indigenous people through environmental decision-making.⁵³

Indigenous peoples' commonly close relationship to the land – their traditional territory – means that they experience a higher burden of environmental impacts from development

⁴⁹ Nancy J Turner et al, "From Invisibility to Transparency: Identifying the Implications" (2008) 13:2 Ecology and Society 7 at 7.

⁵⁰ See, e.g., David Schlosberg & David Carruthers, "Indigenous Struggles, Environmental Justice, and Community Capabilities" (2010) 10:4 Global Environmental Politics 12–35; Fernan Talamayan, Mapping Anti-Dam Movements: The Politics of Water Reservoir Construction and Hydropower Development Projects in the Philippines (2020) Taiwan: International Centre for Cultural Studies, Working Paper, No 22.

⁵¹ For the concept of environmental justice see, e.g., David Schlosberg, *Defining Environmental Justice* (Oxford: Oxford University Press, 2007); Karen Bell, *Achieving Environmental Justice. A Cross-National Analysis* (Bristol, UK: Policy Press, 2014); The Global Atlas of Environmental Justice, "EJAtlas | Mapping Environmental Justice", (2020), *EJAtlas* (website), online: <<https://ejatlas.org/>>. This website provides an open access interactive map on cases of environmental injustice around the world through the approval of natural resource developments.

⁵² See, e.g., Scott & Smith, "'Sacrifice Zones' in the Green Energy Economy", *supra* note 33.

⁵³ See, e.g., Laura Westra, *Environmental justice and the rights of indigenous peoples: international and domestic legal perspectives* (London ; Sterling, VA: Earthscan, 2008); Schlosberg & Carruthers, *supra* note 50. It is important to note that not all Indigenous groups agree with categorizing their concerns about the approval of infrastructure projects, with effects on their people and lands, as environmental justice issues. And indeed, justice for Indigenous peoples is not restricted to environmental justice concerns. The marginalization of Indigenous peoples may be framed in different ways, particularly through a sovereignty and resurgence frameworks. I have decided to apply an environmental justice framework because it has a consolidated literature on state-based processes causing disparate adverse effects on marginalized communities.

projects that disturb traditional practices such as fisheries, hunting, trapping, and access to sacred areas.⁵⁴ Scholars have also indicated, as a dimension of environmental justice, that mitigation and compensation measures for the impacts of large dams are unable to protect the survival of Indigenous communities and their relationship to their ancestral lands.⁵⁵ The literature on displacement and resettlement by dams has challenged material compensation's ability to restore previous livelihood and environmental conditions. Conversely, compensation may cause harmful and profound disturbances to the ways Indigenous communities traditionally relate to nature and natural resources.⁵⁶

Case studies demonstrate that, for Indigenous peoples, environmental justice claims are diverse and go beyond distributional and procedural concerns. Their claims focus on preserving their identity, community, and traditional ways of life, aiming to protect their ability to continue and reproduce the traditions, practices, cosmologies, and their relationships with nature.⁵⁷ In regards to large hydropower projects, dams have had extensive impacts on Indigenous peoples' livelihood and lifeways, often leading to economic and social marginalization.⁵⁸

Even though Indigenous traditional and legal orders reflect different cosmologies and ways of living of various Indigenous peoples worldwide,⁵⁹ Indigenous peoples commonly situate their conceptions of authority over lands and waters on their relationship with nature as a relationship of care and responsibility.⁶⁰ Indigenous peoples understand their obligations to the land and waters as a way to maintain natural resources for future generations. As a result of their obligations and responsibilities, they claim that they hold inherent rights and authority to manage and use resources sustainably.⁶¹ Some describe this process as a mutual responsibility scheme between human and non-human beings.⁶² For thousands of years, the lands and waters have supported Indigenous peoples' lives and their cultural

⁵⁴ Julian Agyeman et al, *Speaking for Ourselves: Environmental Justice in Canada* (UBC Press, 2010).

⁵⁵ Fadzilah Majid Cooke et al, "The Limits of Social Protection: The Case of Hydropower Dams and Indigenous Peoples' Land" (2017) 4:3 Asia & the Pacific Policy Studies 437–450 at 439, 440.

⁵⁶ W Nathan Green & Ian G Baird, "Capitalizing on Compensation: Hydropower Resettlement and the Commodification and Decommodification of Nature–Society Relations in Southern Laos" (2016) 106:4 Annals of the American Association of Geographers 853–873.

⁵⁷ Schlosberg & Carruthers, *supra* note 50 at 12, 13.

⁵⁸ Cooke et al, "The Limits of Social Protection", *supra* note 55.

⁵⁹ John Borrows, *Freedom and indigenous constitutionalism* (Toronto; Buffalo: University of Toronto Press, 2016) at 104.

⁶⁰ See, e.g., C F Black & Cf Black, *The Land Is the Source of the Law: A Dialogic Encounter with Indigenous Jurisprudence* (London, UK: Taylor & Francis Group, 2010); Borrows, "Living between Water and Rocks", *supra* note 2.

⁶¹ Shiri Pasternak, *Grounded authority: the Algonquins of Barriere Lake against the state* (Minneapolis: University of Minnesota Press, 2017).

⁶² See, e.g., Yelkotte-Clifford, *supra* note 2.

identities. And Indigenous stories and traditional knowledge have served as the concrete basis for sustainable environmental decision-making.⁶³

The concept of mutual responsibility between human and non-human beings is not present in the traditional literature on environmental justice, which has focused on the state-based laws and policies and their adverse effects on marginalized people. More contemporary literature on environmental justice for Indigenous peoples has been addressing this relationship and its implications for the legal treatment of the state to Indigenous peoples. In this more nuanced and expanded approach to environmental justice, disruption of Indigenous peoples' lifeways through colonization and the ongoing subordination of Indigenous law to colonial law reproduce environmental injustices for Indigenous peoples by causing concrete adverse effects on the land.⁶⁴

Despite its advancements to address Indigenous peoples' concerns, environmental justice is still a limited body of literature, not yet able to provide solutions for the lack of recognition of the diverse Indigenous approaches to treating land and resources and Indigenous inherent rights and collective self-determination. For this reason, the voices of Indigenous participants provide some insight to this research, as they help illuminate specific issues related to the relationship of Indigenous communities to their lands and the implication of this relationship to the outcomes of environmental decision-making. On the one hand, environmental justice helps one see and understand the experiences and concerns of Indigenous peoples as justice issues related to state-based processes. On the other hand, Indigenous peoples' experiences help challenge and expand the framework of environmental justice.

Indigenous claims of mutual responsibility to nature are relevant to this study to the extent that they inform the specific ways through which state environmental decision-making disparately affects Indigenous peoples and their lands. However, this research does not address the structures of colonization that have disturbed this mutual relationship and have shaped state environmental decision-making, as other frameworks such as Indigenous sovereignty and resurgence do.⁶⁵ Conversely, this study addresses the inequities of the

⁶³ See, e.g., Nancy J Turner, *The Earth's Blanket: Traditional Teachings for Sustainable Living* (Seattle: University of Washington Press, 2005); Jay T Johnson & Soren C Larsen, eds, *A Deeper Sense of Place. Stories and Journeys of Indigenous-Academic Collaboration* (Corvallis: Oregon State University Press, 2013).

⁶⁴ See, e.g., Kyle Whyte, "Settler Colonialism, Ecology, and Environmental Injustice" (2018) 9:1 *Environment and Society* 125–144; Deborah McGregor, "Honoring Our Relations: An Anishinaabe Perspective on Environmental Justice" in Julian Agyeman et al, eds, *Speaking for Ourselves, Environmental Justice in Canada* (Vancouver: UBC Press, 2009) 27; Jaskiran Dhillon, "Introduction: Indigenous Resurgence, Decolonization, and Movements for Environmental Justice" (2018) 9:1 *Environment and Society* 1–5.

⁶⁵ I apply the EJ principles to interpret the experiences that Indigenous participants shared through the interviews. This does not mean that I assume that those participants agree with the framing of their concerns with disparate adverse effects as a matter of EJ. Some of the interviewees' claims showed more affinity with Indigenous resurgence and sovereignty frameworks. One of the reasons I chose EJ is because I focus on addressing the state-based processes and their effects, not necessarily their roots in colonialism. The second reason is because, even though this body of literature has been growing in

colonial legal and policy regime on Indigenous peoples by adopting a contemporary approach to EJ for Indigenous people and by analysing the experience of Indigenous peoples with the Site C and Belo Monte hydro projects.

In this research, the environmental justice framework serves to develop a set of analytical principles to diagnose, in environmental decision-making, issues stemming from the relationship between the state and Indigenous nations. In particular, environmental justice principles help reveal governments' level of compliance with the standards of their legal obligations to Indigenous nations, as established through Treaties with Indigenous Peoples, human rights and constitutional provisions.⁶⁶ In addition, environmental justice helps characterize the problem of taking up land and resources for development, through environmental decision-making as a fundamental threat to Indigenous peoples.⁶⁷

This dissertation investigates whether environmental impact assessment and decision-making about large dams unavoidably disregards the concerns of affected Indigenous communities. Conversely, the research explores whether impact assessment may serve as a path to environmental justice by accounting for the adverse effects of large projects on Indigenous peoples. On the one hand, the research findings may serve as a tool to design more accurate and fair state-based environmental decision-making laws and policies. On the other hand, the research findings can provide scholarly evidence to strengthen Indigenous communities' fight against environmental injustice in dam-building processes and to affirm their authority in state-led environmental decision-making. The experiences of affected Indigenous people help inform this study's approach to EJ and point to the need to push the boundaries of EJ towards a more integral perspective of decision-making and adverse effects.

North America, there is not substantial literature on Indigenous sovereignty and resurgence in Brazil that allows me to analyse the participants' experiences through this framework.

⁶⁶ See, e.g., Vinodh Jaichand & Alexandre Andrade Sampaio, "Dam and Be Damned: The Adverse Impacts of Belo Monte on Indigenous Peoples in Brazil" (2013) 35:2 Human Rights Quarterly 408-447; Annie L Booth, "Northern Environmental Justice: A Case Study of Place, Indigenous Peoples, and Industrial Development in Northeastern British Columbia, Canada" (2017) 1:1 Case Studies in the Environment 1-19; Even though this research does not focus on justice for Indigenous Peoples in environmental decision-making through a human rights perspective, human rights principles and international bodies have been significant for Indigenous organizations in framing injustice regarding dam approvals and claiming their position as disparately affected. The 'UN Guiding Principles on Business and Human Rights', for instance, is a relevant instrument that defines general obligations for States and Corporations harmonizing business practices and domestic law enforcement with international standards. Guiding Principles on Business and Human Rights. Implementing the United Nations "Protect, Respect and Remedy" Framework, by United Nations Human Rights Office of the High Commissioner, HR/PUB/11/04 (New York: United Nations, 2011).

⁶⁷ See, e.g., T Timothy Casey, "Not In our Lands: A Canadian Comparative Study of Indigenous Resistance Strategies to Natural Resource Development in British Columbia and the Arctic" in Karen Jarratt-Snyder & Marianne Nielsen, eds, *Indigenous Environmental Justice* (Tucson, Arizona: University of Arizona Press, 2020) 160.

5. Structure of the Dissertation

Following this introductory overview of the research problem, other six chapters form this dissertation. In chapter two, I describe this research's methodology by indicating the gap in the literature that I aim to fulfill, the justification for the analytical framework, based on the environmental justice literature. The chapter also outlines fundamental concepts adopted in the dissertation, my positionality as a researcher, the rationale for applying a comparative case study method, and a description of the empirical research, including interviews and research questions. I adopt the environmental justice framework as the primary framework because it evaluates the disparate adverse impacts of natural resources and environmental decision-making on people and their cultures. The framework also investigates the implications of power relations on human well-being, integrated into socio-ecological systems and situated in a place-specific natural resources context and environment. The framework serves as a lens to examine the disparate adverse effects of state-based decisions about hydropower projects on Indigenous peoples' ways of life and their traditional lands worldwide and in the case studies.

In chapter two, I also justify applying a comparative case study to look at the law in its social, political, and cultural contexts. I examine the variables of the case studies with a focus on the research questions, examining the rules of each legal system but also the social practices that confer meaning to rules.⁶⁸ Both case studies, Site C and Belo Monte reviews, indicate the presence of disparate adverse effects on Indigenous communities and the limitation of impact assessment laws and policies in addressing those impacts. My process of conducting empirical research through interviews with government officials and decision-makers helped to identify the challenges in considering the disparate adverse effects of infrastructure projects on Indigenous communities in the current impact assessment frameworks. Interviews with Indigenous leaders and activists, and non-Indigenous activists allied with Indigenous groups, who have participated in or that have critiqued the assessment and decision-making processes, helped me identify the structural and project-specific issues of the reviews.

I also examined written documents such as court case decisions, impact assessment reports and affidavits to analyse the concrete application of laws and policies to real processes and decisions. I explain how other methodologies helped inform the analysis. I take the advice of Indigenous scholars such as Linda Smith, Eve Tuck, and Lindsay Borrows to apply principles from decolonizing methodologies. I focus on seeking to be a humble and good listener, deconstructing western research's claim of universality, and contributing to state's recognition of Indigenous peoples' authority over their traditional lands.⁶⁹ I take the approach of Samia Bano, and Ramazanoğlu and Holland to apply principles from feminist methodologies. Feminist methodologies have helped me exercise self-reflectivity – being

⁶⁸ See Robert Cover, "Nomos and Narrative" (1983) 97:1 Harvard Law Review 4–65; Kim Lane Scheppele, "Constitutional Ethnography: An Introduction" (2004) 38:3 Law & Society Review 389–406.

⁶⁹ Linda Tihiwai Smith, *Decolonizing Methodologies* (London: Zed Books, 2012); Eve Tuck & K Wayne Yang, "Decolonization is not a metaphor" (2012) 1:1 Decolonization: Indigeneity, Education & Society 1–40; Lindsay Borrows, "Dabaadendiziwin: Practices of Humility in a Multi-Juridical Legal Landscape" (2016) 1 Windsor YB Access Just 149–166.

aware of how power relations influence discourse and being cautious about objectifying relationships with the participants.⁷⁰ In chapter two, I also describe my positionality as a researcher to indicate that the descriptions, categories, and conclusions of this study are not the pure objects of my analysis but representations of my own understanding, which is a product of various factors, such as my origin, background, and education.⁷¹ Therefore, I do not claim or pursue neutrality, and I acknowledge that knowledge production is a political process.⁷²

Chapter three provides a review of the literature on environmental decision-making and impact assessment through the lens of environmental justice. I outline some of the main critiques that environmental justice scholars make regarding impact assessment and environmental decision-making. Based on the literature review, I constructed a set of principles that I apply as the research's analytical framework. Based on the literature, I organized the principles of environmental justice into three categories – recognition of affected people, procedural justice, and distributional justice – and I use these categories to organize the data results from the interviews.

Concerning the recognition aspect, achieving environmental justice would require the state to acknowledge Indigenous peoples' right to self-determination. This right is necessarily linked to their traditional territories and the health of socio-ecological systems. Indigenous peoples are particularly vulnerable to adverse environmental effects, vulnerabilities that stem from the connection between people and land (e.g., Indigenous laws of the place, economic, spiritual, and cultural ties to the land, reliance on natural resources for livelihood). For this reason, to achieve environmental justice, environmental decision-making should acknowledge Indigenous peoples' policies and processes of community-led environmental assessment, applying their knowledge, laws, and traditions. I discuss the limits of consultation in ensuring compliance with Indigenous and Aboriginal rights. Finally, I indicate the complexities and nuances in the definition and application of FPIC as a component of environmental decision-making.⁷³ Indigenous communities and individuals, such as those interviewed in this research, view their sovereignty or authority, ecological health and human rights as entwined, and FPIC as part of Indigenous

⁷⁰ Samia Bano, "Standpoint, Difference and Feminist research" in Reza Banakar & Max Travers, eds, *Theory and Method in Socio-legal Research* (Oxford: Hart Publishing, 2005) 91; Caroline Ramazanoğlu & Janet Holland, *Feminist Methodologies Challenges and Choices* (London, UK: Sage, 2002).

⁷¹ Edward Said, *Orientalism* (New York: Vintage Books, 1979) at 10.

⁷² Susan Bibler Coutin, "Reconceptualizing Research: Ethnographic Fieldwork and Immigration Politics in Southern California" in June Starr & Mark Goodale, eds, *Practicing Ethnography in Law: New Dialogues, Enduring Methods* (New York: Palgrave Macmillan US, 2002) 108 at 119.

⁷³ Experiences with FPIC demonstrate that national and subnational states have not yet been successful in implementing the requirement of FPIC in state-led environmental decision-making, and that part of the distrust of Indigenous peoples towards state governments in regards to FPIC is due to the lack of recognition by the state of the right and authority of Indigenous peoples to say 'no' to certain development projects. See, e.g., Marina Brilman, "Consenting to Dispossession: The Problematic Heritage and Complex Future of Consultation and Consent of Indigenous Peoples" (2017) 49 Colum Hum Rts L Rev 1–72; Nathan Yaffe, "Indigenous Consent: A Self-Determination Perspective" (2018) 19:2 Melb J Int'l L 703–749; Carla F Fredericks, "Operationalizing Free, Prior, and Informed Consent" (2016) 80:2 Alb L Rev 429–482.

governance systems and legal traditions that support more just state-based environmental decision-making.⁷⁴

In terms of procedural justice, considering equal decision-making power between the state and Indigenous governments, achieving environmental justice would require that the institutional criteria for impact assessment (for knowledge selection, significance determination, scoping, participation, and decision-making) respect Indigenous laws and policies. Criteria would need to be thorough and accessible to the public, indicating how the assessment and decision would deal with disparate impacts on Indigenous communities. Another essential measure would be the provision of funding to cover expenses with designing and conducting impact assessment

Regarding distributional aspects, impact assessment often fails in accurately demonstrating the inequitable distribution of impacts; and when it does, the implications of the inequitable distribution are often dismissed. Achieving environmental justice would require that impact assessment include socio-spatial evaluation of the distribution of adverse impacts on Indigenous communities, especially cumulative effects of past development on Indigenous peoples' rights. This data would better inform decisions about the significance of the project's impacts and scope of relevant issues on Indigenous communities. Furthermore, achieving environmental justice would require that the decision favour Indigenous peoples' authority to decide how to develop their traditional territories and its natural resources.

In chapters four and five, I describe the Belo Monte dam case study in Pará, Brazil, and the Site C dam case study, in BC, Canada. In each of these two chapters, I rely on academic literature, impact assessment reports, official and independent affidavits, and interviews with Indigenous peoples (Indigenous governments' staff, councillors, chiefs, elders, teachers, activists), activists in alliance with Indigenous movements, Brazilian government officials, and members of the Site C expert review panel. I organized the data from the interviews according to the three aspects of environmental justice, as described in chapter three.

In chapter four, I provide an overview of the Belo Monte dam's historical background, inserted in the context of industrial development in the Brazilian Amazon region, and specifically the socio-ecological effects of the dam on Indigenous communities. The chapter also contains a characterization of the Brazilian legal and policy regimes pertinent to the assessment and decision-making of the Belo Monte project. The chapter ends with the description of data results from interviews, according to my interpretation and organization into environmental justice aspects. The data results indicate that the Brazilian policies on natural resources development undermine Indigenous peoples' governance systems over traditional territories by establishing a centralized model through which the

⁷⁴ Cathal M Doyle, "Indigenous Peoples' experiences of resistance, participation, and autonomy: Consultation and free, prior and informed consent in Peru" in Claire Wright & Alexandra Tomaselli, eds, *The Prior Consultation of Indigenous Peoples in Latin America* (London: Routledge, 2019) 58-74; Layla Hughes, "Relationships with Arctic indigenous peoples: To what extent has prior informed consent become a norm?" (2018) 27 Wiley Reciel 15-27.

colonial government makes decisions about hydropower projects even before the beginning of impact assessment processes. In order to accomplish its development policies, the Brazilian government violated constitutional environmental principles and Indigenous constitutional rights. The Belo Monte dam's remarkable size led even government officials to acknowledge that it is impossible to identify, mitigate, and compensate for all the environmental and social impacts created by the dam. Finally, the decision-making process lacked deep consideration for Indigenous peoples' concerns, thus failing to ensure a more accurate characterization of the impacts of infrastructure projects on Indigenous peoples and lands.

In chapter five, I provide an overview of the Site C project's historical background, inserted in the context of industrial development in the Northeast region of BC, and specifically the socio-ecological effects of the dam on Indigenous communities. The chapter also contains a characterization of the Canadian and BC legal and policy regimes that are pertinent to the assessment and decision-making of the Site C project. The chapter ends with describing data results from interviews with First Nation activists, First Nations' government officials and staff, non-Indigenous activists allied with First Nations, and review panel members. The interviews' results indicate that issues related to the assessment and approval of infrastructure projects must be considered in the larger perspective of respect for the standards established through Treaty 8 and the cumulative effects of industrial development on Treaty and Aboriginal rights. The interviews indicate that reconciliation between Indigenous and non-Indigenous governments in Northeast BC require Indigenous control over their traditional territories in a nation-to-nation approach and compliance with the principles established in the Treaty and case law.

Chapter six contains an analysis of the data results based on the principles constructed in chapter three, through a comparison of the two case studies.⁷⁵ In that chapter, I offer an account of the deficiencies of Site C and Belo Monte state-led review processes and Indigenous peoples' experiences with those processes and outcomes. I also indicate some of the environmental justice literature features that need further analysis and discussion to address Indigenous peoples' concerns with the impacts of infrastructure and claims of self-determination over traditional territories. The analysis demonstrates the interconnectedness between the aspects of environmental (in)justice through the failures of environmental decision-making and its pervasive impacts on the lives of Indigenous peoples. The primary connection to be made is how the loss of land and waters, caused by 'development' projects, affects livelihood, the intra and inter-societal relationships, the intergenerational relationships, and the transfer of traditional knowledge to the coming generations of Indigenous peoples. Colonial laws and policies have not recognised that the traditional

⁷⁵ I should highlight that the differentiation between data results and data analysis is not a natural one, as the organization and interpretation of the results are not free from the influence of my standpoint as a researcher. The organization of the results does not mean that the voices from the interviews can be perfectly combined into analytical categories since they are nuanced and diverse. I organize the results according to my interpretation, based on the environmental justice principles, according to how I understand the core similarities in the issues that were discussed in the interviews. I do that as a way to convey a coherent story to the reader and to highlight the similar patterns of environmental injustices committed against Indigenous peoples through environmental decision-making across the two case studies.

ways of living and relating with the land are a cornerstone for Indigenous peoples' survival and that the impacts of projects on Indigenous peoples are distinct and more profound than to the mainstream society. Consequently, colonial governments have created narrow and superficial regulatory frameworks to assess and decide about development and infrastructure. These frameworks are reinforced by the governments' non-compliance with the standards of Treaty and constitutional rights, especially in administrative decision-making, and by a narrow concept of 'consent' based on compensation agreements that favour the corporations' bargaining power while reinforcing the communities' dependence on economic propositions. This dependence comes to a full cycle when generating a distancing of Indigenous peoples from the land and crystallizing a form of development that leads to communities' social disruption and impoverishment.

Chapter seven contains recommendations for laws and policies that could address the issues summarized in chapter six, especially for states adopting a more integral perspective of environmental justice for environmental impact assessment and decision-making practices. The conclusions signal that impact assessment and decision-making in which Indigenous nations implement their own laws and policies would be a significant step towards equal partnerships with the state in managing the land and waters, generating, therefore, decision-making that better addresses Indigenous peoples' concerns. The analysis also highlighted the need for respect for and integration of Indigenous-led assessments and Indigenous policies and declarations in decision-making and more comprehensive cumulative assessments of the impacts on Indigenous rights and lifeways. The results indicate that strategies for achieving environmental justice for Indigenous peoples in environmental decision-making could include joint decision-making processes and FPIC. These processes would occur through co-management regimes pre-defined through agreements between the state and the Indigenous nations whose traditional territories are affected.⁷⁶

⁷⁶ Melissa Nursey-Bray, Pedro Fidelman & Mensah Owusu, "Does co-management facilitate adaptive capacity in times of environmental change? Insights from fisheries in Australia" (2018) 96 Marine Policy 72-80; Nathan Young et al, "'Consulted to death': Personal stress as a major barrier to environmental co-management" (2020) 254 Journal of Environmental Management 109820. Part of this literature contains critique indicating that environmental co-management has been serving as a tool to ensure the maintenance of the state government power, rather than an act of power-sharing. For this reason, there is growing distrust of Indigenous peoples towards state governments regarding whether the state will actually recognise and comply with Indigenous authority in joint environmental decision-making processes. Therefore, the signature of co-management agreements does not mean that the parts have reached environmental justice. EJ is better characterized as path of growing equity towards marginalized people rather than specific outcomes.

Chapter 2: Research Methodology

1. Introduction

This research project examines impact assessment as one essential requirement for decision-making about large infrastructure and energy projects. My goal in looking at EIA and environmental decision-making is to investigate their effectiveness in regards to addressing the inequities of adverse effects on Indigenous peoples and their traditional lands. Through a comparative case study analysis, I evaluate two large hydropower projects from Canada, BC (Site C dam) and Brazil, Pará (Belo Monte dam). There have been political protests and court cases adopted by Indigenous nations challenging the Site C project, mainly involving complaints about the process of decision-making and issues about unjustified treaty rights infringement.⁷⁷ Similarly, the Belo Monte case includes Indigenous political demonstrations, court cases, complaints about human rights violations by public interest lawyers, and issues regarding the decision-making process.⁷⁸ I apply a set of principles that I constructed by reviewing the environmental justice literature (in chapter three) to each case study as the analytical framework and the focus of comparison between the two cases.

In both case studies, I conducted semi-structured interviews with state government officials, review panel experts, and Indigenous communities' leaders,⁷⁹ aiming to identify the practical challenges in integrating equity principles into EIA and decision-making. The purpose of the interviews is to account for the experiences of participants with the operation of state-led impact assessment practices. I also analyse court cases regarding both projects' adverse effects on Indigenous peoples, official reports and affidavits, recording the review of the projects, aiming to identify practical challenges in applying equity principles to impact assessment. Finally, I analyse existing legislation and policies pertaining to the Canadian and the Brazilian regulatory frameworks, aiming to understand what is missing in the legal and policy texts in accomplishing equitable treatment through impact assessment.

This research's central aspect is the struggles of Indigenous peoples whose special connection with the land has been threatened by those two specific infrastructure projects. I take Linda Tihiwai Smith's view that struggle is a tool of social activism and theory; it

⁷⁷ See, e.g., *Prophet River First Nation v British Columbia (Environment)*, 2015 BCSC 1682.

⁷⁸ See, e.g., Ina Peters, *Cohesion and Fragmentation in Social Movements. How Frames and Identities Shape the Belo Monte Conflict* (Hannover, Germany: Springer VS, 2018). The facts regarding each one of these case studies will be described in detail in chapters four and five of this dissertation.

⁷⁹ For the purpose of this research, I consider as Indigenous leaders a broad range of participants: Indigenous government officials and staff, members of Indigenous associations representing communities' interests, teachers and elders in the community. I will describe the participants' roles further in the chapter. I refer to Indigenous nations as the combination of communities that form one people, with one form of government or organization with a unified leadership. I refer to Indigenous communities as the groups of Indigenous peoples that live in the same area and are similarly affected by environmental change. In Brazil, Indigenous communities are often referred to as *aldeias* (villages).

can be mobilized as resistance and transformation.⁸⁰ I hope this research will ultimately benefit those Indigenous peoples and others who might face threats to their ways of life from environmental impacts. My goal is to contribute to social transformation by engaging with state law and policy, making explicit the inequities they produce and proposing reform.

1.1. Chapter organization

This chapter is organized into four main sections. The first section (introduction) provides an overview of the research project, the gap in the academic literature that it intends to fulfill, key concepts used throughout the study, and a description of the researcher's positionality in the project.

The second section outlines the research design, including the research questions, methodological objectives, and research assumptions. The third section describes the basis for the analytical framework used in the research, the reasons for applying this one framework, and how it differs and overlaps with other frameworks commonly used to address issues related to environmental decision-making and Indigenous peoples.

Finally, the fourth section explains the reasons for and how I apply the comparative case study method. It also provides explanations for examining the specific case studies, considerations about the role of empirical research and other methodologies in this project, and an outline of the field questions, based on the research questions, which I use in the semi-structured interview with participants.

1.2. Literature review

This research explores the relevance of acknowledging disparate adverse effects of environmental and natural resource decision-making on Indigenous peoples, lands, and cultures. It investigates whether or not the assessment of and decision about large infrastructure and energy projects can address these disparate impacts and deliver equitable treatment of Indigenous peoples.

The EJ literature focuses mainly on the causes and consequences of unequal effects of environmental changes, in its broader sense, on marginalized people. It speaks to the injustice experienced by individuals and communities disparately affected by the quality of the environment and by issues of access to natural resources, partially because of systemic discrimination based on race, class, or gender.⁸¹ Although EJ deals with disparate impacts of environmental changes on people, their health, culture, and wellbeing, it does not (yet) sufficiently include discussions about impact assessment of significant infrastructure and energy projects. There is still a need for discussions about the possibility of environmental justice contributing to the equitable treatment of marginalized groups in

⁸⁰ Smith, *supra* note 69 at 317.

⁸¹ For definitions of environmental justice as an analytical framework, see Schlosberg, *supra* note 51; Bell, *supra* note 51.

the decision-making process and outcomes.⁸² Large hydropower dams are one type of natural resource development infrastructure known to cause extensive and disparately adverse effects on local communities where projects are located.⁸³

There is little research pointing to how the concerns and experiences of marginalized groups affected, especially Indigenous peoples, should influence the practice of natural resources governance, particularly about the role of the law and policies. The literature raises numerous concerns regarding equity in the process and outcomes of decision-making and issues with the asymmetric power of the parties involved, who can influence the decision, and what bodies of knowledge count as valid.⁸⁴ However, there are gaps in research on impact assessment's role in identifying and acknowledging the consequences of marginalization on the distribution of adverse environmental effects and delivering equitable treatment of affected Indigenous peoples.⁸⁵

Environmental impact assessment has a recognition component,⁸⁶ which tackles how marginalized communities, such as Indigenous people, are specially treated regarding the decision-making processes and outcomes.⁸⁷ This recognition aspect is not well explored in

⁸² See Grace Nosek's application of environmental justice arguments to defend legal requirement of free, prior, and informed consent in environmental decision-making, in one of the few academic legal scholarships to address impact assessment through an environmental justice framework. Grace Nosek, "Re-Imagining Indigenous Peoples' Role in Natural Resource Development Decision Making; Implementing Free, Prior and Informed Consent in Canada through Indigenous Legal Traditions" (2017) 1 UBC L Rev 95–160.

⁸³ See, e.g., Scudder, *supra* note 24; Bryan Tilt, Yvonne Braun & Daming He, "Social impacts of large dam projects: A comparison of international case studies and implications for best practice" (2009) 90:3 *Journal of Environmental Management* (Understanding and linking the biophysical, socio economic and geopolitical effects of dams) S249–S257; Sanjeev Khagram, *Dams and Development: Transnational Struggles for Water and Power* (Cornell University Press, 2004).

⁸⁴ Paul Nadasdy, "The Politics of Tek: Power and the 'Integration' of Knowledge" (1999) 36:1/2 *Arctic Anthropology* 1–18; See, e.g., Matthew Cashmore & Anna Axelsson, "The mediation of environmental assessment's influence: What role for power?" (2013) 39 *Environmental Impact Assessment Review* (Power and Impact Assessment) 5–12.

⁸⁵ Even though I agree with the classification of Indigenous peoples as marginalized actors in environmental decision-making, I reject the categorization of Indigenous peoples as simply stakeholders in the decision-making process. Indigenous peoples' status is legally and politically unique, therefore, I address them as nations within the Canadian and Brazilian territories.

⁸⁶ The term 'recognition' is used in this dissertation as an aspect of an environmental justice framework, which is agreed in the literature, and which refers to an acknowledgement of certain marginalized groups that are disparately and adversely affected by environmental harms and require specific treatment in the decision-making process. See, e.g., Gordon Walker, "Beyond Distribution and Proximity: Exploring the Multiple Spatialities of Environmental Justice" (2009) 41:4 *Antipode* 614–636; Patrick Macklem & Douglas Sanderson, *From Recognition to Reconciliation: Essays on the Constitutional Entrenchment of Aboriginal and Treaty Rights* (University of Toronto Press, 2016). I make the meaning of the term recognition explicit throughout the dissertation.

⁸⁷ Michele-Lee Moore, Suzanne von der Porten & Heather Castleden, "Consultation is not consent: hydraulic fracturing and water governance on Indigenous lands in Canada" (2017) 4:1 *WIREs Water* n/a; Nosek, *supra* note 82; Emilie Cameron & Tyler Levitan, "Impact and Benefit Agreements and the Neoliberalization of Resource Governance and Indigenous-State Relations in Northern Canada" (2014) 93:1 *Studies in Political Economy* 25–52.

the literature.⁸⁸ Although some nation-states are legally bound to observe procedural requirements for consultation with Indigenous people and accommodation in impact assessment, scholars still assert that assessment procedures and outcomes reinforce power asymmetries and inequity towards Indigenous people.⁸⁹ Some scholarship, for example, points to shortcomings of EIA in accurately assessing specific economic, cultural and spiritual aspects of Indigenous peoples' vulnerability to environmental harms, based on their relationship to the land, and dependence on natural resources.⁹⁰ Authors also indicate that consultation and accommodation procedures have not been enough to ensure a real dialogue and sharing of power between states and Indigenous peoples regarding the approval of development projects.⁹¹

Thus, this study aims to address some of the gaps in the literature regarding Indigenous peoples and environmental decision-making theory. One of these gaps is assessing and recognising the disparate adverse environmental effects of infrastructure and energy projects on Indigenous peoples.⁹² Another gap is impact assessment's role in decision-making about infrastructure projects in delivering equitable treatment of Indigenous peoples.

1.3. The concept of *environment* and *natural resource* in this research project

In this research project, I adopt the notion of socio-ecological systems as integrated

⁸⁸ Some aspects of this research project overlap with part of the literature on free, prior, and informed consent (FPIC) by addressing the concerns with recognition of Indigenous peoples' authority over the territory. See, e.g., Nosek, *supra* note 82; Fredericks, *supra* note 73. However, the environmental justice literature provides a broader perspective on the issue by acknowledging that the lack of FPIC may originate disparate adverse effects on socio-ecological systems. This aspect of FPIC may relate better with procedural and distributional justice aspects of EJ.

⁸⁹ Aguilar-Støen & Hirsch, "Environmental Impact Assessments, local power and self-determination", *supra* note 47; Philippe Hanna et al, "Improving the effectiveness of impact assessment pertaining to Indigenous peoples in the Brazilian environmental licensing procedure" (2014) 46 *Environmental Impact Assessment Review* 58–67.

⁹⁰ See, e.g., Ryan Holifield, "Environmental Justice as Recognition and Participation in Risk Assessment: Negotiating and Translating Health Risk at a Superfund Site in Indian Country" (2012) 102:3 *Annals of the Association of American Geographers* 591–613; Catherine A O'Neill, "Risk Avoidance, Cultural Discrimination, and Environmental Justice for Indigenous Peoples" (2003) 30:1 *Ecology Law Quarterly* 1; Catherine A O'Neill, "Environmental Justice in the Tribal Context: A Madness to EPA's Method" (2008) 38 *Environmental Law* 495–536. The shortcomings of impact assessment in addressing the concerns of Indigenous peoples with disparate adverse environmental effects are also present in all current environmental management tools used by national, subnational, and provincial governments, and that influence environmental decision-making, not only impact assessment.

⁹¹ Aniekan Udofia, Bram Noble & Greg Poelzer, "Meaningful and efficient? Enduring challenges to Aboriginal participation in environmental assessment" (2017) 65 *Environmental Impact Assessment Review* 164–174.

⁹² Part of the literature I engage with throughout the dissertation indicates that impact assessment, in the way it is currently structured, is not able, or even designed, to address disparate adverse effects on Indigenous peoples. See, e.g., Booth & Skelton, *supra* note 47; Bingham, "Discourse of the Dammed", *supra* note 20. Even though this has been a common conclusion in the literature, this research uniquely draws from the experiences of individuals that have been affected by state-processes to make explicit how disparate adverse effects connect with specific aspects of environmental decision-making.

complex systems in which social and ecological subsystems are coupled and interdependent.⁹³ I apply David Harvey's idea of *situatedness* of a being, according to which 'environment' is whatever exists in the surroundings of that being that is relevant to its state at a particular moment.⁹⁴ Situatedness implies no real separation between the quality of bio/ecosystems and the human beings that live in these systems. Ecosystems, society, and culture are inherently interdependent.

The notion of socio-ecological systems has its origins in Indigenous peoples' relationship to the land. Nancy Turner, for instance, describes the ancient and complex connection between Indigenous peoples and plants of the Northwestern region of North America.⁹⁵ Some streams of environmentalism have later adopted this notion in arguing that land is a community, an operating system, in which the individual is a member of interdependent parts, also formed by elements such as water, soil, animals, and plants.⁹⁶

Although I agree that land and its elements are not merely commodities to be explored, I use the term 'natural resources' in this research project, as it is the official terminology in the legal and policy systems examined here. 'Natural resources' is used here as the elements of land that have an economic value to human beings in regards to development, such as water.⁹⁷ I acknowledge that the term brings a connotation of property rights leading to a commodification of nature, despite land's much broader and holistic role in connection to humans and other beings. However, assigning an economic and social value to nature has been one of the premises of environmental laws and policies in colonial legal systems. Harvey points out that "[w]e are implicated in putting monetary valuations on 'nature' by virtue of our daily practices."⁹⁸ The dominant worldview deals with ecosystems as an externality to fit a price structure or a regulatory regime.⁹⁹ Thus, we refer to the elements of the land as resources because this value reflects the need that capitalist societies have built for themselves. Still, it does not necessarily reflect land's intrinsic worth or Indigenous ways of relating with and referring to these elements of land communities.¹⁰⁰

⁹³ Fikret Berkes, "Environmental Governance for the Anthropocene? Social-Ecological Systems, Resilience, and Collaborative Learning" (2017) 9:7 Sustainability 1232.

⁹⁴ David Harvey, "The Nature of Environment: The Dialectics of Social and Environmental Change" (1993) 29:1 The Socialist Register 1–51 at 2.

⁹⁵ Nancy Turner, *Ancient Pathways, Ancestral Knowledge: Ethnobotany and Ecological Wisdom of Indigenous Peoples of Northwestern North America* (Montreal: McGill-Queens University Press, 2014).

⁹⁶ Julianne Lutz Newton, *Aldo Leopold's Odyssey* (Washington: Island Press Shearwater Books, 2006).

⁹⁷ Vandana Shiva explains that "[w]hen sustenance is the organizing principle of society's relationship with nature, nature exists as a commons. It only becomes a resource when profits and capital accumulation become the organizing principles and create an imperative for exploitation of resources for the market." Shiva Vandana, "Resources" in Wolfgang Sachs, ed., *The Development Dictionary* (London; New York: Zed Books Ltd, 1993) at 216.

⁹⁸ Harvey, *supra* note 94 at 4.

⁹⁹ *Ibid.* at 7

¹⁰⁰ I acknowledge that a few state legal regimes and many Indigenous legal orders refer to these elements of land community in different ways than simply *natural resources* or *commodities*. See, e.g., Yelkette-Clifford, *supra* note 2; Black & Black, *supra* note 60; Robert Albrow, "Bolivia's indigenous foreign policy :

This research project's analytical framework resonates well with the idea of land as a community and the importance of social, cultural, and ecological systems' interdependence. The environmental justice framework represents a pluralisation of environmentalism, including concerns with human health, livelihood, culture, racism, and discrimination, intersected with bio/ecological changes. For environmental justice, the environment is not the 'external' pristine nature, but it includes the places where people live, work and play,¹⁰¹ revealing an artificial separation between environmental and social justice.¹⁰² Therefore, considering that social justice and environmentalism are not divided and that social and ecological systems are interdependent, environmental law has a vital role in reflecting socio-ecological systems' integration by adopting a nested approach to laws and policies, one that mutually and holistically promotes ecological and social sustainability.¹⁰³ My analysis and recommendations will incorporate this approach.

1.4. The concept of *development* in this research project

Even though I adopt the mainstream colonial term 'development,' I also apply a critical view of the concept by arguing that the universalized conception of 'development' in fact suppresses other community-based forms of development, especially the ones based on the Indigenous relationships with the lands and waters. This research project aims to demonstrate that the colonial concept of development, centred around a capitalist logic of accumulation, justifies, through environmental decision-making, the interference on the lives of the communities considered 'less developed' on the basis of modernisation and economic growth,¹⁰⁴ seeking social and cultural domination.¹⁰⁵ There is, therefore, a need and an increase of different practices to decenter development as universal ideas of growth, progress, and modernity.¹⁰⁶ Indigenous peoples around the world, for instance, have, in different ways, strategically created life projects for their communities that combine modern/global processes and long-standing place-based cultural logics.¹⁰⁷ The notion of *buen vivir*, for instance, present in many communities of Latin America, is one alternative to the mainstream concept of development. The notion offers an alternative social

Vivir bien and global climate change ethics" in Evan Berry & Robert Albro, eds, *Church, Cosmovision and the Environment* (New York: Routledge, 2018) 99.

¹⁰¹ Schlosberg, *supra* note 51 at 15.

¹⁰² Dorcetta E Taylor, "The Rise of the Environmental Justice Paradigm" (2000) 43:4 American Behavioral Scientist 508–580.

¹⁰³ J B Ruhl, "Thinking of Environmental Law as a Complex Adaptive System: How to Clean Up the Environment by Making a Mess of Environmental Law" (1997) 34:4 Hous L Rev 933–1002.

¹⁰⁴ Aram Ziai, "Post-development 25 years after The Development Dictionary" (2017) 38:12 Third World Quarterly 2547–2558.

¹⁰⁵ See, e.g., Melanie K Yazzie, "Decolonizing Development in Diné Bikeyah: Resource Extraction, Anti-Capitalism, and Relational Futures" (2018) 9:1 Environment and Society 25–39; Arturo Escobar, *Encountering development: the making and unmaking of the Third World*, 2nd ed (Princeton, New Jersey: Princeton University Press, 1995) at 7.

¹⁰⁶ Escobar, *supra* note 105 at xviii.

¹⁰⁷ *Ibid.* at xviii

existence, reintegrating reason and nature, human and non-human worlds.¹⁰⁸ My intention is to help break the consensus about what development means by arguing that, in every society, there is not just one single model of a good way of life but alternative, diverse ones.¹⁰⁹

1.5. The concept of equity in this research project

The concept of equity has a central role in this research project. Equity in law generally refers to correcting the failures in justice caused by a strict application of rules.¹¹⁰ More specifically, equity in environmental and natural resource decision-making, first, includes exposing the social and racial marginalization that influences the allocation of disparate environmental adverse effects on Indigenous peoples. Second, equity involves respect for Indigenous laws, cultures, and traditions in the assessment and decision-making about infrastructure and energy projects. Finally, equity encompasses the sharing and balancing of decision-making power, considering Indigenous peoples' inherent right to self-determination over their traditional territories.¹¹¹

The environmental justice framework acknowledges that equity is not based on the equal distribution of environmental harms and access to resources but on recognising the existence of different paths that lead to environmental impacts on communities. In other words, various avenues and factors lead to adverse environmental effects on people, depending on their location, culture, ways of being, ways of relating to the land, and their dependence on natural resources.¹¹² Thus, equitable treatment requires that different solutions address the factors leading to impacts through various and nuanced legal and policy treatments, both in procedural and substantive ways. Equitable treatment, therefore,

¹⁰⁸ Aníbal Quijano, "'Bien vivir': entre el 'desarrollo' y la des/colonialidad del poder" (2011) 084 *Revista Ecuador Debate* 77–87 at 83.

¹⁰⁹ Ziai, *supra* note 104 at 2548.

¹¹⁰ Ralph A Newman, "The Place and Function of Pure Equity in the Structure of Law" (1965) 16 *The Hastings Law Journal* 401–429.

¹¹¹ *United Nations Declaration on the Rights of Indigenous People*, 13 September 2007, A/RES/61/295. [UNDRIP]. As a General Assembly Declaration, UNDRIP reflects treaty obligations and customary international law. The right to self-determination has been recognized by the United Nations General Assembly through the Declaration of the Rights of Indigenous Peoples. The text of the declaration was developed during decades of negotiations and is the result of Indigenous people's claiming recognition of their inherent rights, according to their traditional laws. For this reason, the declaration contains an expression of Indigenous law. See, e.g., James (Sa'Ke'j) Youngblood Henderson, "The Art of Braiding Indigenous People's Inherent Human Rights into the Law of Nation States" in John Borrows, Oonagh Fitzgerald, Risa Schwartz, eds., *Braiding Legal Orders: Implementing the United Nations Declaration on the Rights of Indigenous Peoples* (Waterloo, ON: Centre for International Governance Innovation, 2019) 29–35.

¹¹² For these reasons I apply the concept of 'equity' and not of 'equality' in this research. Equal access to welfare or resources might lead to inequities for vulnerable communities and special right-holders, such as Indigenous peoples, whose lifeways rely on a different relationship with the environment and natural resources than other groups. For definition, aspects, and problematization of the concept 'equality', see Ronald Dworkin, "What is Equality? Part 1: Equality of Welfare" (1981) 10:3 *Philosophy & Public Affairs* 185–246; Ronald Dworkin, "What is Equality? Part 2: Equality of Resources" (1981) 10:4 *Philosophy & Public Affairs* 283–345.

is about using specific actions and procedures to acknowledge differences among people affected and to balance the powers between proponents and conductors of development and the people that are affected by it.¹¹³ In addressing Indigenous peoples' engagement in environmental decision-making, equity also refers to acknowledging their position as nations and special rights-holders, not merely stakeholders.¹¹⁴

1.6. The concept of *reconciliation* and the relevance of this research project to advance reconciliation

There is no single definition of reconciliation between settlers and Indigenous peoples, but an ongoing debate about what it means, amongst people and institutions of particular societies, such as the ongoing discussions happening in Canada. This type of discussion is not existent in other countries, such as Brazil, where reconciliation is not broadly discussed in the public sphere. According to the Final Report of the Canadian Truth and Reconciliation Commission:

To some people, *reconciliation* is the re-establishment of a conciliatory state. However, this is a state that many Aboriginal people assert never has existed between Aboriginal and non-Aboriginal people. To others, reconciliation, in the context of Indian residential schools, is similar to dealing with a situation of family violence. (...) To the Commission, reconciliation is about **establishing and maintaining a mutually respectful relationship** between Aboriginal and non-Aboriginal peoples in this country. **In order for that to happen, there has to be awareness of the past, acknowledgement of the harm that has been inflicted, atonement for the causes, and action to change behaviour.**¹¹⁵

Through this research project, I acknowledge that respectful relationships between settlers and Indigenous peoples are essential to heal the harms caused by residential schools and to reform environmental and natural resource decision-making. Colonization has damaging and interconnected effects on both aspects. This study considers that reconciliation requires awareness of the harm committed, atonement, and change of behaviour. But it also argues that research should contribute to building concrete legal and policy means to add flesh to the definition of reconciliation in the context of environmental decision-making.

The purpose here is to approach the idea of reconciliation critically. Being critical might mean not re-establishing broken relationships sometimes, but building (for the first time) the parts of the bridge necessary to protect Indigenous rights and address their concerns in environmental decision-making. Safeguarding the distinctiveness of Indigenous

¹¹³ Mike Ewall, "Legal Tools for Environmental Equity vs. Environmental Justice Environmental Justice and Equity" (2012) 13:1 Sustainable Dev L & Pol'y 4–13.

¹¹⁴ Suzanne von der Porten & Robert C de Loe, "Collaborative approaches to governance for water and Indigenous peoples: A case study from British Columbia, Canada" (2013) 50 *Geoforum* 149–160.

¹¹⁵ Truth and Reconciliation Commission of Canada, *Honouring the Truth, Reconciling for the Future. Summary of the Final Report of the Truth and Reconciliation Commission of Canada* (Winnipeg, Canada, 2015).

governance and culture should prevail as a primary aspect of reconciliation.¹¹⁶

In this study, reconciliation implies the rearrangement of power structures through law and policy.¹¹⁷ This rearrangement first begins with concretely recognising the harms done by colonization practices and creating a legal framework that promotes discontinuity of harmful practices.¹¹⁸ Second, reconciliation requires recognition of Indigenous peoples' self-determination, including the validity of their laws, traditions, and institutions, in the use of land and natural resources. Self-determination in this project means the right of a people to choose how they want to interact with a dominant state.¹¹⁹ Third, reconciliation requires research to critique, deconstruct, and reform dominant laws and institutions, pointing to the respect for Indigenous laws, traditions, and institutions. Finally, reconciliation means building legal and policy collaborative frameworks to decide how to use and protect land and natural resources in traditional territories.¹²⁰

Land use and natural resource governance are well-known topics of contention between Indigenous peoples and settlers' states. Therefore, addressing them through research has the potential for contributing to the ongoing processes of reconciliation. This research is important for reconciliation because it focuses on practical and concrete solutions towards healing relationships between Indigenous peoples and settlers' institutions.¹²¹ This will be done by delivering recommendations on how the decision-making regulatory framework about infrastructure and energy projects could address Indigenous peoples' concerns with disparate environmental adverse effects and the sharing of power to assess, decide about, and monitor projects. I base this research on the notion that legal systems are instruments to mediate politics of self-determination. Although the law cannot deliver reconciliation independently of other disciplines and social arrangements, this project assumes that it can significantly contribute to it.¹²²

1.7. Why researching colonial law?

This research project focuses on the positivist concept of law, examining state colonial law – the dominant legal systems of the common and civil law that provide the foundation for

¹¹⁶ John Borrows et al, eds, *Braiding legal orders: implementing the United Nations Declaration on the Rights of Indigenous Peoples* (Waterloo, ON, Canada: Centre for International Governance Innovation, 2019).

¹¹⁷ For an analysis and critique of the relationship between reconciliation and the concept of sovereignty used by the Canadian Crown see Joshua Nichols, *Reconciliation and the foundations of aboriginal law in Canada* (University of Victoria, 2017) [unpublished].

¹¹⁸ James Cockayne, "More Than Sorry: Constructing a Legal Architecture for Practical Reconciliation" (2001) 23 *Sydney Law Review* 577–596 at 582.

¹¹⁹ Roger Merino, "Law and Politics of Indigenous Self-Determination: The Meaning of Right to Prior Consultation" in Irene Watson, ed, *Indigenous Peoples as Subjects of International Law* (New York: Routledge, 2018) 120.

¹²⁰ Borrows, *supra* note 2 at 178, 179.

¹²¹ See Cockayne's concept of 'practical reconciliation' Cockayne, *supra* note 118.

¹²² Merino, *supra* note 119 at 122.

nation-states, Canadian and Brazilian. The purpose of taking this focus is seeking ways to deconstruct this law and demonstrating that it cannot claim a universal logic. I focus on colonial law not to reinforce the inequities entrenched in the dominant system but to illuminate these inequities and evaluate whether environmental decision-making could be used as an instrument of reconciliation. Although this research project explores nation-states' laws, it bases on the premise that there are nations with their own distinct legal systems within states.¹²³ I use the terms 'colonial' and 'state' governments interchangeably to refer to national or subnational states.

I approach the positive state law and the experiences of Indigenous peoples when facing state law. In examining nation-states' colonial law, I take the approach that law is formed by legal rules and the narratives behind those rules, which gives meaning to legal rules.¹²⁴ This approach is particularly relevant to understand how environmental decision-making legal and policy frameworks can be transformed to recognise the marginalization caused by colonialism. Moreover, this analysis is significant to create a new framework that integrates Indigenous laws, traditions, and decision-making structures into the dominant legal system.¹²⁵ The goal of the project, therefore, is not only to deconstruct and analyse from within the colonial legal system but also to contribute to a framework that allows for reform.¹²⁶

1.8. Positionality: Locating the researcher in the research project

There is extensive literature showing how a researcher's position within a project and in relation to the issues surrounding it is especially significant in shaping the researcher's impression of the facts and its analysis.¹²⁷ It is important to state that the descriptions, categories, and conclusions of this study *are not the pure objects* of my analysis but representations of my own understanding, which is a product of various factors, such as my origin, background, and education.¹²⁸ From a feminist perspective, objective academic investigation does not imply neutrality; research is never neutral and sterilized from the researcher's experience.¹²⁹ I also acknowledge that research is not an "innocent academic exercise" because it is always located within social and political contexts and has concrete

¹²³ Siegfried Wiessner, "Indigenous Sovereignty: A Reassessment in Light of the UN Declaration on the Rights of Indigenous People" (2008) 41:4 Vand J Transnat'l L 1141-1176.

¹²⁴ Gardiol van Niekerk, "Indigenous law and narrative: rethinking methodology" (1999) 32:2 Comparative and International Law Journal of Southern Africa 208-227; Cover, *supra* note 68.

¹²⁵ Wiessner, "Indigenous Sovereignty", *supra* note 123 at 1160.

¹²⁶ Smith, *supra* note 69 at 6.

¹²⁷ Feminist methodology has an essential role in this process of acknowledging one's standpoint. For how a researcher's presence can be negotiated, see Samia Bano, "Standpoint, Difference and Feminist research", *supra* note 70 at 100. "The identity of the researcher raises questions on how the researcher may affect the outcome of the observational research."

¹²⁸ Said, *supra* note 71 at 10.

¹²⁹ Sandra Harding, "'Strong Objectivity': A Response to the New Objectivity Question" (1995) 104:3 Synthese (Feminism and Science) 331-349.

implications for people.¹³⁰ For this reason, I would like to position myself in this project. I do this to be honest with myself, with the research participants, and with the academic and general public that will hopefully benefit from this investigation. I do not claim or pursue neutrality, and I acknowledge that knowledge production is a political process.¹³¹ But my goal is to be legally and politically accountable and transparent as a researcher.

I am a Venezuelan-Brazilian non-Indigenous person of Indigenous and European ancestry, born and raised in Brazil's third-largest city, Belo Horizonte, Minas Gerais state's capital, in the southeast region of the country. Although my primary legal background is in the Brazilian civil law system, I have completed a master's of law in Canada and taken courses on Canadian Law, including common law analysis. Although my first language is Portuguese, I speak and write fluently in English. This language skill is particularly relevant, considering the many translation exercises present in this research – from the language itself to legal and cultural systems.

As a young lawyer, I worked in a *favela* of Belo Horizonte, a community with high levels of systemic violence, infrastructure problems, and issues with illegal land occupation and property regularization. This experience made me aware of how marginalized populations in urban areas are subject to environmental issues and how environmentalists, governments, and academics continually disregarded these problems. I felt there was a gap in the approach taken by environmentalists and environmental law, addressing community and urban issues as separate from the 'natural' environment.

Later, I practiced environmental law in Brazil for six years, working mostly with hydropower corporations in environmental impact statement analysis and design – writing legal opinions and negotiation and litigation with local communities' members affected by dams. I have learned and practised Brazilian colonial law since obtaining a law degree in 2005 from the University of Minas Gerais state and being accepted into the Bar.

The state I am from is known for its thriving hydro developments due to the abundance of rivers and mountains and their use by its mining industry, which relies on both ongoing and historical developments. As a Portuguese colony, the region was the source of large amounts of gold, diamonds and other precious stones sent to Portugal and Britain. But the land was rich enough also to provide gold for constructions, such as for cathedrals dated from the sixteenth to the nineteenth centuries. Today, the region is still rich in minerals and provides for an extensive amount of resources extracted by multinational mining corporations. I grew up visiting the various colonial historical buildings and seeing the ongoing degradation done by mining and dams.¹³²

¹³⁰ Smith, *supra* note 69 at 35, 36.

¹³¹ Coutin, *supra* note 72 at 119.

¹³² The ongoing degradation by mining in Minas Gerais includes tragic accidents such as Mariana and Brumadinho tailing dams' rupture. See, e.g., Wilcockson, Steve, "Deja Vu - Brumadinho and Mariana Dam Disasters", (16 April 2019), *Geospatial Insight* (blog), online: <<https://info.geospatial-insight.com/blog/brumadinho-and-mariana-dam-disasters>>; *Why is mining still so dangerous?*, by Kimber Meyer, Léonie Guguen & Walton Pantland (Geneva: Industrial Union, 2019).

Nonetheless, this is only part of the history about where I am from, which is considerably distant from the Brazilian case study that I am exploring, in the Pará state, in the north of the country. These two regions are also distant in terms of culture, urbanization, and law enforcement. Although the national legal system and resource management policies govern all developments in the country, especially the ones with impacts on Indigenous peoples and lands, each region has substantial legal and historical particularities. Through this research project, I am, for the first time, exploring Pará's context, as I have had no previous personal, professional, or academic experience in the area. Neither have I worked on issues or researched about Brazilian Indigenous peoples before undertaking this project. I am a settler on which is today the Brazilian territory, including the lands of the peoples of the Xingu River. My position as a Brazilian lawyer allows me to access Brazilian legal institutions, such as the Foundation for Indigenous Affairs (FUNAI) and some non-government organizations.

I moved to British Columbia, Canada, in 2015 to develop this doctorate research project. In BC, I explore the Site C hydropower dam case, in the Peace River, approved on Treaty 8 territory. This is my first time connecting with people from the Peace River watershed and researching and interacting with Indigenous peoples in Canada. I am a newcomer to this country and this territory. In Canada, I became familiar with what colonization means to law and how law contributes to colonization and, consequently, to natural resource exploitation. It was here that I have become aware that Indigenous peoples are not “dead Indians,” as Thomas King points out;¹³³ that Indigenous peoples are live people, live cultures, live legal orders, and jurisdictions. This study relies heavily on Peoples from Xingu and Peace Rivers sharing their experiences and opinions with me.

2. Research Design

The scope of this research project is to investigate whether (and how) environmental assessment and decision-making current regulatory frameworks can address the concerns of Indigenous peoples regarding the disparate adverse effects of natural resource development projects on their traditional territories. For this reason, I focus mainly on the sharing of decision-making power and collaborative processes to ask the following research questions:

- Can current impact assessment frameworks address disparate adverse effects of large infrastructure projects on Indigenous communities? If so, to what extent and how impact assessment can deal with these impacts?
- Can impact assessment lead to collaborative decision-making? What type of regulatory framework is needed for joint decision-making between the state and Indigenous peoples?

In order to answer those research questions, I focus on the following methodological objectives:

¹³³ Thomas King, *The Inconvenient Indian* (Ottawa: Anchor Canada, 2013) at chapter 3.

- I first construct a set of equity principles, based on an environmental justice analytical framework, by which to evaluate impact assessment and decision-making of large development projects. These principles are developed based on a literature analysis.
- Second, I investigate the challenges decision-makers experience in integrating equity principles regarding adverse effects of development projects on Indigenous communities into impact assessment process and outcomes.
- Third, I describe the structural and project-specific issues raised by Indigenous people in applying the equity principles to impact assessment of large development projects.
- Finally, I address the research questions and, if applicable, construct recommendations for impact assessment and decision-making about large infrastructure/energy projects laws and policies to integrate equity considerations about adverse effects of environmental and natural resources decision-making on Indigenous communities.

In order to contribute to the transparency and accountability of the research, I list below the ‘starting points’ of this project. These are arguments that have contributed to shaping the scope of the study. I develop and demonstrate these arguments throughout the dissertation.

- Environmental impact assessment and decision-making about large projects do not adequately address the disparate impacts of environmental decision-making on marginalized communities, as I demonstrate in chapter three, the literature review chapter.
- The review of the environmental justice literature applied to case studies can contribute to forming a set of equity principles, as demonstrated in chapter three;
- Both case studies examined in this research raise environmental justice issues and concerns, as I demonstrate in more detail in section four of this chapter and chapters four and five of the dissertation;
- Equity principles can be used to evaluate specific environmental decision-making processes, particularly whether/how those processes address the systematic marginalization of Indigenous peoples, as shown in chapters four, five, and six.

3. Research Analytical Framework

3.1. Environmental justice literature

The environmental justice literature has a well-developed analysis of disparate effects of environmental decision-making. From that literature, I extract principles that I use as an analytical framework for this research. Environmental justice provides analyses from a bigger picture of systemic marginalization, narrowing it down to specific stakeholders and practical challenges in environmental decision-making. The literature on environmental justice encompasses different natural resources developments, context-based realities, and legal systems, as shown further in the dissertation through a literature review. The application of environmental justice is shaped differently worldwide and does not hold one

concept, such as the one first adopted in the United States.¹³⁴

Indigenous rights are at the centre of the environmental justice literature in many parts of the world.¹³⁵ The framework's evolution indicates that environmental justice is concerned with the geographical distribution of environmental harms and benefits, environmental equity to future generations, and the inequity committed through colonization processes.¹³⁶ Kyle Whyte, for instance, focuses on how settler colonialism disrupts human relationships with the environment, engendering environmental injustice for Indigenous peoples.¹³⁷

I adopt environmental justice as the starting point for this research analytical framework, first, because it addresses disparate impacts of environmental decision-making on marginalized communities. These disparate impacts are not meaningfully dealt with by impact assessment, as consistently stated in the literature.¹³⁸ I also use environmental justice because both case studies analysed in this research raise environmental justice issues. Bodies of literature showing environmental injustices in other natural resource development projects demonstrate that Site C and Belo Monte reveal similar matters relating to Indigenous groups.¹³⁹ Indigenous groups and social and environmental movement groups pursuing political and legal actions against hydro dams evidence environmental justice issues in both case studies examined in this research.¹⁴⁰ Further, this body of literature is relevant because it builds upon several critiques raised against environmental decision-making in a range of other types of academic scholarship. Environmental justice, for instance, challenges the way participation takes place in assessment and decision-making, for marginalized groups have inequitable opportunities to influence the process and results.¹⁴¹

¹³⁴ David V Carruthers et al, *Environmental Justice in Latin America: Problems, Promise, and Practice* (Cambridge, US: MIT Press, 2008) at 1–25.

¹³⁵ Carmen G Gonzalez, "An Environmental Justice Critique of Comparative Advantage: Indigenous Peoples, Trade Policy, and the Mexican Neoliberal Economic Reforms" (2010) 32 U Pa J Int'l L 723–804; Orellana, "Indigenous Peoples, Energy and Environmental Justice", *supra* note 30.

¹³⁶ Eric K Yamamoto & Jen-L W Lyman, "Racializing Environmental Justice" (2001) 72 U Colo L Rev 311–360; O'Neill, *supra* note 90.

¹³⁷ Whyte, *supra* note 64.

¹³⁸ See, e.g., Walker, "Environmental justice, impact assessment and the politics of knowledge", *supra* note 5; Holifield, "Environmental Justice as Recognition and Participation in Risk Assessment", *supra* note 90.

¹³⁹ Jane Griffith, "Hoover Damn: Land, Labor, and Settler Colonial Cultural Production" (2017) 17:1 Cultural Studies ↔ Critical Methodologies 30–40; Duarte-Abadía, Boelens & Roa-Avedaño, *supra* note 21.

¹⁴⁰ Andrew Kurjata, "West Moberly and Prophet River First Nations file court claim to stop Site C", *CBC News* (16 January 2018), online: <<http://www.cbc.ca/news/canada/british-columbia/site-c-dam-court-case-1.4489679>>; OAS, Inter-American Commission on Human Rights, *Annual Report*, No MC 382/10 (2011) at 72.

¹⁴¹ Hilary Gibson-Wood & Sarah Wakefield, "'Participation', White Privilege and Environmental Justice: Understanding Environmentalism Among Hispanics in Toronto" (2013) 45:3 *Antipode* 641–662.

3.1.1. Differences between environmental justice as analytical and political frameworks

In this study, I apply environmental justice to construct an analytical framework, not a political framework. Although environmental justice evolved from political and social movements' claims, especially in the US, scholars have later shaped it as a specific framework to examine the role of marginalization on environmental decision-making and influence regulatory standards that rule environmental and natural resources decisions.¹⁴²

There is resistance to looking at environmental justice capable of objectively addressing equity in public policies.¹⁴³ Discourses that discredit environmental justice in policy-making processes are based on the allegation that it does not provide an objective set of criteria. However, environmental justice as an analytical framework has proved to adopt a rigorous and critical lens to examine environmental injustice in different locations and contexts, as demonstrated in chapter three. Therefore, this framework can contribute significantly to impact assessment by delivering analysis of inequities to make normative politics more explicit in decision-making. It can also contribute to assessing the vulnerability and specific inquiries and sensitivities of local communities.¹⁴⁴

Conversely, the environmental justice political framework does not provide for this type of analysis. It focuses on responding to episodes of marginalization in environmental issues without deeply questioning the more systemic characteristics and effects of marginalization on decision-making, policies and laws. Environmental justice political framework signals, and challenges through legal or political actions, laws and policies that do not consider and integrate environmental justice principles.¹⁴⁵

Environmental justice principles help diagnose justice problems in environmental governance, especially related to sacrificing the wellbeing (or even the survival) of local communities for the 'common good' of the larger society.¹⁴⁶ Second, EJ principles help frame justice issues stemming from the relationship between the colonial governments and Indigenous nations. In particular, they help reveal the implications of colonial governments not upholding the standards of their moral and legal commitments to Indigenous nations. As a result, the colonial governments have colonized the process through which environmental decision-making is done.¹⁴⁷ Third, EJ principles help

¹⁴² William M Bowen, *Environmental Justice Through Research-Based Decision-Making* (London, UK: Taylor & Francis Group, 2001) at 27-29.

¹⁴³ Bell, *supra* note 51 at 15.

¹⁴⁴ Walker, "Environmental justice, impact assessment and the politics of knowledge", *supra* note 5.

¹⁴⁵ O'Neill, *supra* note 90.

¹⁴⁶ Scott & Smith, "'Sacrifice Zones' in the Green Energy Economy", *supra* note 33; Sarah Marie Wiebe, *Everyday exposure: indigenous mobilization and environmental justice in Canada's chemical valley* (Vancouver: UBC Press, 2016).

¹⁴⁷ See, e.g., Michael Mascarenhas, "Where the Waters Divide: First Nations, Tainted Water and Environmental Justice in Canada" (2007) 12:6 Local Environment 565-577; Justin Page, "Salmon Farming in First Nations' Territories: A Case of Environmental Injustice on Canada's West Coast" (2007) 12:6 Local Environment 613-626.

characterize the problem of taking up land and resources for development as the fundamental threat to Indigenous peoples and their identity (especially in a more recent Indigenous framing of EJ).¹⁴⁸

3.2. Why using environmental justice and not a sustainability framework?

The environmental justice and sustainability frameworks have very distinct origins. The first comes from grassroots movements and political claims inspired by the civil rights movements in the US. The second has its roots in a more international process, formalized through the Brundtland Report.¹⁴⁹ While environmental justice has traditionally focused on class, race, gender, and social justice concerns, sustainability has a stronger focus on ecosystem conservation and restoration.¹⁵⁰ Environmental justice was born from marginalized people's experiences, while sustainability originated from privileged groups' dominant perspectives, especially male individuals.¹⁵¹

Sustainability carries a normative aspect related to inter and intra-generational obligations to nature and human beings. The idea of existing limits to the condition of biophysical and ecological systems is one of the pillars of this framework.¹⁵² Therefore, protecting the continuance of systems to ensure a stable quality of living conditions over generations is central to this framework.¹⁵³ The sustainability framework gave room to sustainable development theories, even though the two diverge in significant aspects. Sustainability scholars have critiqued sustainable development theories, unpacking the arguments that development can observe a universal logic, disregarding specific context, localities, cultures, and that economic growth can remain unlimited.¹⁵⁴

Both frameworks, sustainability and environmental justice, overlap, particularly considering recent literature on Just Sustainabilities, which argues that inequality is

¹⁴⁸ See, e.g., Mary Kathryn Nagle, "Environmental Justice and Tribal Sovereignty: Lessons from Standing Rock" (2018) *The Yale Law Journal Forum* 667–684.

¹⁴⁹ *United Nations Report of the World Commission on Environment and Development: Our Common Future*, UN General Assembly, Annex, A/42/427 (1987) ["Brundtland Report"].

¹⁵⁰ See, e.g., Kyle Powys Whyte, Joseph P Brewer & Jay T Johnson, "Weaving Indigenous science, protocols and sustainability science" (2016) 11:1 *Sustainability Science* 25–32; Mona Seymour, "Just sustainability in urban parks" (2012) 17:2 *Local Environment* 167–185 at 168, 180.

¹⁵¹ See, e.g., Julian Agyeman & Bob Evans, "'Just Sustainability': The Emerging Discourse of Environmental Justice in Britain?" (2004) 170:2 *The Geographical Journal* 155–164; Rachel Simon-Kumar et al, "Towards North-South Interconnectedness: a Critique of Gender Dualities in Sustainable Development, the Environment and Women's Health" (2018) 25:3 *Gender, Work & Organization* 246–263.

¹⁵² Will Steffen et al, "Planetary boundaries: Guiding human development on a changing planet" (2015) 347:6223 *Science* 736–747.

¹⁵³ Klara Helene Stumpf et al, "The Justice Dimension of Sustainability: A Systematic and General Conceptual Framework" (2015) 7:6 *Sustainability* 7438–7472 at 7445, 7446.

¹⁵⁴ Wolfgang Sachs, "Environment" in Wolfgang Sachs, ed, *The Development dictionary: a guide to knowledge as power* (London; Atlantic Highlands, N.J: Zed Books, 1992) 26.

harmful to the environment and human wellbeing.¹⁵⁵ But environmental justice is more concerned with intra-generational justice and the discrepancies in how the present social and racial groups of people experience environmental changes. Disparate adverse effects imposed on marginalized people are at the core of this research project, but not primary in a sustainability approach. Environmental justice is particularly relevant for a qualitative approach to marginalization influencing how governments decide about infrastructure projects.¹⁵⁶ Sustainability has not profoundly explored how these political processes disregard consideration of disparate adverse effects intra-generationally. Nevertheless, some aspects of the sustainability framework overlap with some Indigenous peoples' concerns with the next generations' survival and wellbeing; concerns that have influenced this research project.

3.4. Why using environmental justice and not a political ecology framework?

Close to environmental justice as a political approach is the theoretical framework of political ecology, which examines the relationship between nature and society, particularly how environmental degradation and power relations to control access to natural resources intersect with biophysical aspects.¹⁵⁷ Both environmental justice and political ecology look at how power relations under a capitalist political economy shape human interaction with the environment. But the frameworks differ, to some degree, concerning the role of biophysical ecology in this interaction. Political ecology is mostly concerned with the consequences of social, political, and economic struggles on ecosystems, questioning the oversimplified explanations of environmental degradation that exclude the power discourses that lead to environmental harms.¹⁵⁸ Despite the recent focus of new political ecology approaches on social sciences, studying the biophysical environment is still central to this theoretical framework.¹⁵⁹

Conversely, environmental justice is concerned mostly with the socio-ecological aspects of marginalization, particularly how power relations shape access to natural resources and marginalized people's experience as part of the environment.¹⁶⁰ Environmental justice is not so much focused on the political nuances of *what causes* environmental degradation, but mainly on *their effects on human beings* as part of socio-ecological systems. Case studies centred around marginalization, with a high historical emphasis on race aspects,

¹⁵⁵ Julian Agyeman, *Introducing Just Sustainabilities: Policy, Planning, and Practice* (London: Zed Books, 2013).

¹⁵⁶ Julie Sze et al, "Defining and Contesting Environmental Justice: Socio-natures and the Politics of Scale in the Delta" (2009) 41:4 *Antipode* 807–843.

¹⁵⁷ Susan Mayhew, *Oxford Dictionary of Geography* (Oxford: Oxford University Press, 2015) at 132; John A Mathews, *Encyclopedia of Environmental Change* (New York: Sage, 2014) at 859.

¹⁵⁸ Tendai Chitewere, "Equity in Sustainable Communities: Exploring Tools for Environmental Justice and Political Ecology Symposium on as if Equity Mattered in Natural Resources" (2010) 50:2 *Nat Resources J* 315–340.

¹⁵⁹ Peter A Walker, "Political ecology: where is the ecology?" (2005) 29:1 *Progress in Human Geography* 73–82.

¹⁶⁰ Joan Martinez-Alier, *Environmentalism of the Poor. A Study of Ecological Conflicts and Valuation* (Cheltenham, UK: Edward Elgar Publishing, 2002) at 12, 14, 173.

form the basis of the environmental justice framework. Unlike political ecology, environmental justice does not necessarily seek to identify the competing social, political, and economic interests in natural resource management,¹⁶¹ but the consequences of marginalization and inequities on how people experience environmental issues. While acknowledging the influence of political ecology in this research, I adopt the environmental justice framework as the primary framework because it evaluates the disparate impacts of natural resources and environmental decision-making on people and their cultures. It investigates the implications of power relations on human wellbeing, integrated into socio-ecological systems and situated in a place-specific context of natural resources and the environment.

3.5. Why using environmental justice and not Indigenous resurgence and sovereignty frameworks?

Remarkable studies have addressed injustice for Indigenous peoples using Indigenous resurgence and sovereignty frameworks.¹⁶² Some Indigenous resurgence scholars argue for the relevance of a politics of recognition (similarly to environmental justice), pointing to constitutionalism as a way to validate Indigenous peoples' cultural distinctiveness.¹⁶³ Conversely, scholars also point to the dangers of recognition: First, because Indigenous peoples' cultures have been historically excluded from public fora, where their claims do not hold enough strength;¹⁶⁴ second, some argue that a politics of recognition is about assimilation, for using a rights, and not a decolonization, framework.¹⁶⁵

Glen Coulthard, for instance, centres Indigenous sovereignty around the relationship with the land, arguing that dispossession of Indigenous lands and resources structured the political relationship between Indigenous peoples and the state of Canada.¹⁶⁶ Similarly, Irene Watson argues that although Indigenous laws hold authority within Indigenous communities, actual power to shape legal systems is in the hands of colonial structures.¹⁶⁷

Although these frameworks are significantly distinct from environmental justice, with different origins, they intersect in some aspects, particularly considering recent literature on environmental justice for Indigenous peoples.¹⁶⁸ In part, both frameworks argue for the

¹⁶¹ Chitewere, "Equity in Sustainable Communities", *supra* note 158.

¹⁶² See, e.g., Dale Turner, *This Is Not a Peace Pipe. Towards a Critical Indigenous Philosophy* (Toronto: University of Toronto Press, 2006); Glen Sean Coulthard, *Red skin, white masks: rejecting the colonial politics of recognition*, Book, Whole (Minneapolis, MN: University of Minnesota Press, 2014).

¹⁶³ John Borrows, *Canada's Indigenous constitution* (Toronto: University of Toronto Press, 2010).

¹⁶⁴ Turner, *supra* note 162.

¹⁶⁵ Irene Watson, "First Nations, Indigenous Peoples: Our Laws Have Always Been Here" in Irene Watson, ed, *Indigenous Peoples As Subjects of International Law* (New York: Routledge, 2018) 96.

¹⁶⁶ Coulthard, *supra* note 162 at 60.

¹⁶⁷ Watson, *supra* note 165 at 97.

¹⁶⁸ Whyte, *supra* note 64; Karen Jarratt-Snyder & Marianne Nielsen, eds, *Indigenous Environmental Justice*, (Tucson, Arizona: University of Arizona Press, 2020); Agyeman, *supra* note 54. Sovereignty and Resurgence scholarships are most commonly originated in claims of autonomy by Indigenous nations

respect of Indigenous laws and governance structures by the dominant system. John Borrows, for example, argues that Indigenous peoples' stories, laws, and traditions provide essential legal and policy mechanisms for environmental decision-making.¹⁶⁹ From an environmental justice perspective, Catherine O'Neil exposes how the dominant society's values and decisional frameworks ignore the interrelated cultural, spiritual, social, economic, and political dimensions of environmental issues.¹⁷⁰

Claims for self-determination and self-governance of Indigenous peoples have slowly begun to make their way into the environmental justice literature for Indigenous peoples. Contemporary scholars defend the autonomy of Indigenous natural resource developments and the creation of equal partnerships between Indigenous and non-Indigenous jurisdictions.¹⁷¹ Recent environmental justice scholarship also addresses the complexity regarding relationships with the land and socio-ecological systems by integrating environmental, race, and sovereignty issues with a more significant cultural and historical depth than the first waves of the environmental justice literature.¹⁷² The social justice element of the environmental justice framework is one way to approach fundamental problems in society, such as colonialism.¹⁷³

Some decolonization scholars critique environmental justice for taking a starting point of analysis from the 'formal law.'¹⁷⁴ However, this is an equally useful framework for investigation, seeking to assess and critique state decision-making from within the existing dominant legal systems.¹⁷⁵ The research draws upon the literature on environmental justice for Indigenous peoples as distinct from the sovereignty and resurgence literature. The purpose of this analysis is to move beyond diagnosing the disparate distribution of environmental adverse effects and help propose solutions for environmental decision-making addressing inequities for Indigenous peoples.

Therefore, this research project examines colonial/state regulatory frameworks to evaluate

from the state, not being dominated by the colonial law, despite being under oppression by ongoing colonization. Environmental justice was originated in claims about unjust treatment of marginalized groups by the state. Traditionally, EJ does not support claims of autonomy from the state, but demands laws and policies that would enable better treatment of those groups.

¹⁶⁹ Borrows, "Living between Water and Rocks", *supra* note 2 at 463.

¹⁷⁰ O'Neill, *supra* note 90.

¹⁷¹ Nicholas J Reo et al, "Factors that support Indigenous involvement in multi-actor environmental stewardship" (2017) 13:2 *AlterNative: An International Journal of Indigenous Peoples* 58-68; Leena Heinämäki, "Toward an Equal Partnership between Indigenous Peoples and States: Learning from Artic Experiences" (2011) 3 *Yearbook of Polar Law* 193-246.

¹⁷² See, e.g., Jarratt-Snider & Nielsen, *supra* note 168.

¹⁷³ Gary C Bryner, "Assessing Claims of Environmental Justice. Conceptual Frameworks" in Kathryn M Mutz, Gary C Bryner & Douglas S Kenney, eds, *Justice and Natural Resources Concepts, Strategies, and Application* (Washington: Island Press, 2002) 31.

¹⁷⁴ See, e.g., Bonita Lawrence & Enakshi Dua, "Decolonizing Antiracism" (2005) 32:4 (102) *Social Justice* 120-143.

¹⁷⁵ Yamamoto & Lyman, *supra* note 136.

whether (or to what extent) the process could address disparate environmental effects of development on Indigenous people; whether environmental decision-making can balance the power asymmetries in processes and deal with issues of essential value to Indigenous communities. In doing so, my intention is not to reinforce the inequities entrenched in a colonial system but to illuminate them to evaluate whether impact assessment and environmental decision-making could be used as instruments of reconciliation.

4. Comparative Case Study Methodology

I conduct this research through a comparative legal and policy analysis by selecting two specific case studies that share similarities about the extent of the energy projects, their effects on Indigenous rights and territories, and the debates around issues with impact assessment processes and outcomes. Both case studies indicate the presence of disparate adverse effects on Indigenous communities and the limitation of impact assessment laws and policies in addressing these impacts. Environmental justice and environmental decision-making scholars broadly explore these characteristics.

This research project is based fundamentally on the case study method to look at the law in its social, political, and cultural contexts. The case study method considers the singularity of state law, depending on each particular social context, examining each legal system's rules and the social practices that confer meaning to rules.¹⁷⁶ This is, therefore, a suitable method for analysing real-world and contextualized processes such as the assessment and decision-making about energy projects.¹⁷⁷

Although this method allows the researcher to closely examine each context's reality, it implies some level of generalization to make the local law intelligible to non-local people. I agree with Pierre Legrand that generalizations of the law are symbolic violences.¹⁷⁸ For instance, even though I was cautious in transcribing and translating the interviews as close as possible to the meaning given by the research participants, there is a certain loss in what each interviewee recounts because of the impossibility to translate all the cultural, social, political context that surrounds each participant. Even so, some 'less violent' generalization is necessary,¹⁷⁹ one that recognizes the relation of law with the world where it is applied. "Law is always law-in-world"¹⁸⁰ is one of the leading premises of this investigation. Throughout this study, I shift between expanding and narrowing my focus on the problem, starting widely with a literature review of the topic, moving on to the specificities of each case study, and concluding with a broader analysis of the issues (and solutions) that crisscross both instances to make general recommendations.

¹⁷⁶ Cover, *supra* note 68.

¹⁷⁷ Alexander L George & Andrew Bennett, *Case Studies and Theory Development in the Social Sciences* (MIT Press, 2005).

¹⁷⁸ Pierre Legrand, "On the Singularity of Law" (2006) 47 Harv Int'l LJ 517.

¹⁷⁹ *Ibid.* at 525.

¹⁸⁰ *Ibid.*; For critical legal thinking on the relativity of and contextualization of 'truth', see Mariana Valverde, *Law's Dream of a Common Knowledge* (Princeton University Press, 2009).

There are many critiques of comparative research. Clifford Geertz argues that one will never capture the whole aspect of culture as a natural fact. Because the law is interwoven into the culture, and cultural analyses are intrinsically incomplete, comparative law faces the risk of missing elements of context.¹⁸¹ Other scholars critique comparative research's basis on generalization, saying that one cannot compare two completely different legal systems. Generalization is applicable within cases (inference) and not across them.¹⁸²

However, comparative research is a necessary tool in the face of large global problems, such as environmental and natural resources issues, for it helps to answer the broad questions of society.¹⁸³ One legal setting might be useful for understanding others.¹⁸⁴ This method is relevant in seeking "the logics of particular contexts as a way of illuminating complex interrelationships among political, legal, historical, social, economic, and cultural elements."¹⁸⁵ It is not about the specifics of legal systems, their rules and institutions, but the connections of a particular case with global patterns or patterns seen in different contexts. It is about identifying a "set of repertoires that can be found in real cases and that provide insight into how constitutional regimes operate."¹⁸⁶

Case study analysis requires the translations of real-life conversations and law, as well as of cultures and ways of thinking.¹⁸⁷ Clough and Nutbrown's "radical inquiry" methods inform profound observation, listening, reading, and questioning of the realities that give life to the law.¹⁸⁸ For example, in this research project's interview sessions, even though I had preliminary questions in my semi-structured interview guide, I tried to listen attentively to what initially sounded like digressions but ended up offering essential insights to my analysis.¹⁸⁹

In this study, I apply John Reitz's comparative research that seeks functional equivalence between legal systems by comparing them to one ideal model, investigating their

¹⁸¹ Clifford Geertz, *The interpretation of cultures: selected essays* (New York: Basic Books, 1973) at 26.

¹⁸² *Ibid.*

¹⁸³ Andrew Harding, "Comparative Law and Legal Transplantation in Southeast Asia: Making Sense of the 'Nomic Din'" in David Nelken & Johannes Feest, eds, *Adapting Legal Cultures* (Oxford: Hart Publishing, 2001) 198 at 203.

¹⁸⁴ Scheppele, "Constitutional Ethnography", *supra* note 68 at 390, 391.

¹⁸⁵ *Ibid.*

¹⁸⁶ *Ibid.*

¹⁸⁷ For the concept of "thick description" as a process of empirical research with in-depth analysis of cultural contexts, see Geertz, *supra* note 181 at chapter I.

¹⁸⁸ Peter Clough & Cathy Nutbrown, *A student's guide to methodology*, 3rd ed (London: SAGE, 2012) at part I.

¹⁸⁹ I also listened to many participants cry, some speak about their rage or lack of hope. I was mindful of my presence in each of the research participant's own space, trying to be humble and grateful for all the interviewees that gave up some of their time, opened up their homes or work spaces to me, shared coffee, food, and introduced me to their families.

similarities and differences in relation to this model.¹⁹⁰ This type of research keeps the framework of comparison constant throughout the analysis in exploring different comparison levels – specific differences and similarities between systems; the systemic contrast among legal systems; and the broader contrast among societies that rely on those legal systems.¹⁹¹ The framework of comparison is a set of principles constructed through a review of environmental justice cases. The principles serve as the ‘ideal’ model in this research project.

The purpose here is not to argue for a transplant of specific legal mechanisms or institutions from one system to another. Although the problems surrounding the assessments of and decision-making about Belo Monte and Site C dams are similar, both regions’ legal, social, cultural, historical, and political contexts are very distinct. Brazil has institutions and legal mechanisms that are non-existent in Canada and vice-versa. In Canada, for example, when jurisdictions overlap, a joint expert review panel carries out the assessment, independent from the proponent and the government. In Brazil, the licencing process occurs only between the proponent and the government, with the intervention of a particular government branch responsible for overseeing Indigenous affairs. The differences are numerous.

But despite all the differences and the apparent distance between the two systems, these licencing processes show surprisingly similar characteristics. In both cases, Indigenous groups and non-Indigenous organizations raised doubts regarding impact assessment’s abilities to correctly identify the projects’ adverse effects on Indigenous peoples and territories and offer real possibilities for changing or rejecting a project.¹⁹²

I pay particular attention to applying the right degree of generalization by using contingent generalizations,¹⁹³ by contrasting the local (legal systems) and the larger (societies and cultures). I investigate the functional equivalence and differences between the legal systems compared to the framework of principles created by reviewing impact assessment and decision-making in relation to environmental justice literature. The analysis does not compare legal rules and institutions precisely but the applications of laws and policies to environmental assessment and decision-making practices. I also compare the effects of this application to ensuring Indigenous peoples’ rights and addressing their concerns with

¹⁹⁰ John C Reitz, “How to Do Comparative Law” (1998) 46:4 The American Journal of Comparative Law 617–636 at 623.

¹⁹¹ *Ibid.* at 627.

¹⁹² *Site C Clean Energy Project. Supplemental Traditional Land Use Report: Dene Tha’ First Nation.*, Supplemental Traditional Land Use Report: Dene Tha’ First Nation, by Marc G Stevenson, Supplemental Traditional Land Use Report: Dene Tha’ First Nation Volume 5 Appendix A04 Part 6 (All Nations Services, 2013); Camila D Ritter et al, “Environmental impact assessment in Brazilian Amazonia: Challenges and prospects to assess biodiversity” (2017) 206 Biological Conservation 161–168 at 161. The authors of the latter study conclude that all three impact assessment processes of projects in the Brazilian Amazon, examined in the study, “fall short of properly assessing the expected impact of infrastructure development *in situ*, and that their results had little or no effect on policy decisions.”

¹⁹³ George & Bennett, *supra* note 177.

respecting their laws, traditions, and cultures.¹⁹⁴ I am primarily concerned with not generalizing Indigenous experiences, for Indigenous peoples show distinct cultures and ways of framing their concerns across different places.¹⁹⁵

4.1. Why these case studies?

I chose the Site C and the Belo Monte case studies because they portray some similarities regarding the projects, their effects on Indigenous communities, and the presence of legal and political challenges. First, the type and extent of the hydro projects are comparable. If constructed, Site C would inundate 83 square kilometres of reservoir area in northern British Columbia and provide up to 1,100 MW of energy capacity.¹⁹⁶ Belo Monte inundated a total of 130 square kilometres to produce 11,233 MW.¹⁹⁷ Second, both projects affect Indigenous communities and lands. In BC, Site C would be located on Treaty 8 traditional territories, in a province formed mostly on unceded lands.¹⁹⁸ The Belo Monte project affects demarcated and non-demarcated Indigenous lands along the Xingu River Basin.¹⁹⁹

Third, both Canadian and Brazilian constitutional systems protect Indigenous rights. In Canada, section 35(1) of the *Constitution Act, 1982* recognizes the “existing aboriginal and treaty rights of the aboriginal peoples of Canada.”²⁰⁰ The *Brazilian Federal Constitution, 1988*, recognizes Indigenous territorial rights of the traditional lands occupied by Indigenous peoples, being the state’s responsibility to demarcate and protect those areas.²⁰¹

¹⁹⁴ Sari Graben, “Nested Regulation in Law and Development: Identifying Sites of Indigenous Resistance and Reform Special Issue: Law and Development: What’s Next: Cross-Country Comparisons” (2016) 2 *Law & Dev Rev* 233–268. This article offers an example of a comparative study about the overlapping of regulatory authority (e.g., the judiciary, the executive, private industry, police, and Indigenous communities, etc.) regarding the compliance with Indigenous rights in decision-making. Similar to the purpose of this research project, Graben’s study does not focus on the comparison between specific laws, authorities or institutions, but on the underlying logics of nested regulation on Indigenous territories.

¹⁹⁵ See, e.g., John George Hansen, ed, *Exploring indigenous social justice* (Vernon, BC Canada: JCharlton Publishing Ltd, 2014) at part III.

¹⁹⁶ Review Panel Established by the Federal Minister of the Environment and the British Columbia Minister of Environment, *Report of the Joint Review Panel - Site C clean energy project, BC Hydro*, (Ottawa and Victoria: Federal Ministry of Environment and BC Ministry of Environment, 2014).

¹⁹⁷ IBAMA, Brasília, 24 November 2015, Licença de Operação Belo Monte n. 1317 (2015) MMA (Brazil).

¹⁹⁸ In chapter five, where I provide data analysis of the Site C case study, I describe Canadian laws’ recognition of Aboriginal rights, the implications of Section 35 of the *Constitution Act, 1982* for environmental decision-making, and a discussion about the Crown’s compliance with the constitutional requirements and standards in this case study.

¹⁹⁹ Fundação Nacional do Índio (FUNAI), Brasília, 2 July 2012, Parecer UHE Belo Monte componente indígena 01/CGGAM/2012, (2012) FUNAI (Brazil).

²⁰⁰ *Constitution Act, 1982*, being Schedule B to the Canada Act 1982 (UK) 1982, c11. At s. 35(1).

²⁰¹ República Federativa do Brasil, Brasília, 5 October 1988, Constitution of the Federative Republic of Brazil and Constitutional Amendments no. 1/92 through 72/2013 and by Revision Constitutional Amendments no. 1/94 through 6/94, (2013) Senado Federal (Brazil) at art. 231.

Fourth, both Brazilian and Canadian courts stage several challenges referring to infringements of Indigenous and human rights. In the Supreme Court of BC, for instance, the Prophet River and the West Moberly First Nations argued that the Site C project infringes their treaty rights under Treaty 8, and the government has not justified that infringement.²⁰² In Brazilian courts, public interest lawyers started a series of legal actions against Belo Monte environmental licences. These legal actions challenged the proponent's non-compliance with conditions related to Indigenous peoples' rights, including the rights to health, basic sanitation, education, and rights to access information about the project and to participate effectively in the public hearings.²⁰³

Outside the formal legal system, rallies and letters to the federal and provincial governments have been challenging the Site C project.²⁰⁴ Indigenous people claim that the dam would violate fundamental rights protected by Treaty 8, the Canadian Constitution, and international human rights law.²⁰⁵ In the Brazilian context, even though most of the prospected area is already flooded, the project is under review by the Inter-American Commission on Human Rights for human rights infringements against the Xingu River People.²⁰⁶ Chapters four and five provide a detailed description of the projects, their biophysical and social impacts.

Court cases and political protests in both cases indicate similar issues with impact

²⁰² Kurjata, *supra* note 140; *Prophet River First Nation v British Columbia (Environment)*, 2017 BCCA 58. This Court of Appeal decision confirmed the BC Supreme Court ruling to dismiss First Nations' argument that a statement about Aboriginal rights' infringement should have been made by the Minister early in the Site C decision-making process. This is one of the concerns of First Nations, that EIA does not include a discussion about possible Treaty rights infringement.

²⁰³ Examples of these actions are the following cases: Tribunal Regional Federal da 1a Região, Belém do Pará, 16 May 2013, Ministério Público Federal v ANEEL, (2013) TRF1 (Brazil); Tribunal Regional Federal da 1a Região, Altamira, Pará, 14 February 2015, Ministério Público Federal v União Federal, (2015) TRF1 (Brazil). These court cases challenge both the outcome and procedure of the decision-making.

²⁰⁴ See, e.g., "Keep the Peace Blog", *Keep the Peace Blog* (blog), online: <<https://keepingthepeace.wordpress.com/>>; Warrior Publications, "Site C / Treaty 8 Stewards of the Land Hunger Strikes Continue with Women's Fast Today", (4 March 2016), *Warrior Publications* (blog), online: <<https://warriorpublications.wordpress.com/2016/03/04/site-ctreaty-8-stewards-of-the-land-hunger-strikes-continue-with-womens-fast-today/>>; Charlie Smith, "More than 250 Canadian scientists and professors sign letter objecting to Site C dam approval", (24 May 2016), online: *The Georgia Straight* <<https://www.straight.com/news/703556/more-250-canadian-scientists-and-professors-sign-letter-objecting-site-c-dam-approval>>.

²⁰⁵ Andrew Kurjata, "West Moberly, Prophet River First Nations warn Site C approval could lead to billion dollar treaty violation", *CBC News* (21 November 2017), online: <<https://www.cbc.ca/news/canada/british-columbia/west-moberly-prophet-river-first-nations-warn-site-c-approval-could-lead-to-billion-dollar-treaty-violation-1.4411061>>.

²⁰⁶ Amazon Watch, "IACHR Opens Case Against Brazil for Human Rights Violations Related to Belo Monte Dam", (7 January 2016), *Amazon Watch* (blog), online: <<http://amazonwatch.org/news/2016/0107-iachr-opens-case-against-brazil-for-human-rights-violations-related-to-belo-monte-dam>>. At the time of the data collection for this dissertation, between April 2018 and May 2019, Site C dam was being constructed and expected to be completed in 2024. The Belo Monte dam had most of the land flooded and nine out of a total of eighteen turbines installed. The Brazilian government inaugurated the completed project in November of 2019.

assessment and decision-making processes, such as insufficient and inefficient consultation with the affected communities; issues of land rights; and adverse environmental effects on Indigenous traditional ways of life, including the loss of certain species and sacred sites. Indigenous groups advocate that the impact assessments in both study areas did not address these issues adequately.

4.2. Conducting empirical research

In this analysis, I describe legal systems in their complex interface with institutions, histories, individuals, and meanings.²⁰⁷ First, empirical research consists of interviews with government officials (from a government agency in Brazil) and decision-makers (from the joint expert review panel in Canada). These interviews seek to identify the challenges practitioners experience in addressing Indigenous peoples' equity concerns into impact assessment and decision-making regarding disparate adverse effects of infrastructure projects on Indigenous communities. Interviews with Indigenous leaders and activists, and non-Indigenous activists allied with Indigenous groups, who have participated in or that have critiqued the assessment and decision-making processes, seek to identify the structural and project-specific issues raised by Indigenous peoples in the application of equity principles to the projects' reviews. In this research, Indigenous leadership refers to Indigenous government officials, councillors, and staff, members of Indigenous associations representing communities' interests, teachers and elders in the community.²⁰⁸ Second, written documents such as court case decisions and affidavits are used to analyse the concrete application of laws and policies to processes and decisions. The information from the interviews guided the analysis of impact assessment reports, government affidavits, and mitigation, compensation and monitoring measures, which contribute to understanding how the process unravelled on the local level.

While this investigation adopts the comparative case study method as the primary methodology for empirical research, other methodologies help inform the analysis. Principles from decolonizing methodologies are particularly important in acknowledging the effects of colonization on how people see the world.²⁰⁹ First, as Smith indicates, Indigenous peoples across the globe tell alternative stories to the history of western research, stories that are powerful forms of resistance.²¹⁰ Through the interviews, I was told very small parts of a few of those Indigenous stories. As an outsider to those communities, my goal is not analysing the stories but being aware of how colonialism has shaped the mainstream approach to conducting research today.²¹¹ Second, as Tuck and

²⁰⁷ Scheppele, "Constitutional Ethnography", *supra* note 68 at 399.

²⁰⁸ In Canada, some of this elected leadership, as established by the Indian Act, a colonial piece of legislation, is seen as a colonial construct itself compared to hereditary leadership. In Brazil, the colonial law does not assign leadership of Indigenous nations and communities. When Indigenous nations do not have a government comparable to the colonial structures, the colonial government agencies identify who appears to be the leadership when interacting with the communities.

²⁰⁹ See, e.g., Black & Black, *supra* note 60; Smith, *supra* note 69.

²¹⁰ Smith, *supra* note 69 at 32.

²¹¹ *Ibid.* at 40.

Yang indicate, achieving decolonization requires the return of land to Indigenous peoples. When settlers take up Indigenous land as their home and source of capital, there is a disruption of Indigenous relationships to land, representing a profound epistemic, ontological, cosmological violence.²¹² The authors caution against justice frameworks that defend reconciliation to maintain the status quo and extirpate settlers' guilt.²¹³ The authors also make a clear argument that decolonization is accountable only to Indigenous sovereignty.²¹⁴ Even though I do not approach this project with an Indigenous sovereignty framework, the view imprinted in this dissertation is that any changes in policies and legislation must recognise and realise Indigenous authority over traditional territories. Third, taking Lindsay Borrows advice, I seek to build relationships of respect and reciprocity with community members participants of the research first by taking the position of a humble listener and "good heart."²¹⁵ In the spirit of reciprocity, after data analysis, I will prepare a summary report of the study's conclusions, to be used by the community if they understand it to be beneficial to their governance practices.

Principles from feminist methodologies are helpful in the study for the exercise of self-reflexivity – being aware of how power relations influence discourse and being cautious about objectifying relationships with the participants.²¹⁶ Ramazanoğlu and Holland call particular attention to taking responsibility for researching the social existence of 'others.' This means avoiding normalizing certain participants, by origin or political position, for instance, and 'otherizing' others. Ethical approaches that will be taken involve knowing what is common amongst participants and what connections cannot be made between different realities. Feminist methodologies help the researcher to be aware that not all participants from the same category share the same types of ideas and opinions. It helps to bring nuance to the research by avoiding making abstracted, general claims of knowledge.²¹⁷

Through the interviews, I intended to integrate into the project the voices of the people who participated in (or were excluded from) the dams' decision-making processes, especially the marginalized voices of members of affected Indigenous communities. I do this because the ways that community members understand the harms to their ways of life and the ways to correct injustices are essential to accomplish environmental justice. I take the perspective

²¹² Tuck & Yang, *supra* note 69 at 5.

²¹³ *Ibid.* at 3, 4.

²¹⁴ *Ibid.* at 35.

²¹⁵ On the importance of humility in acknowledging different legal orders and on the importance of deep listening in research, see, respectively, Lindsay Borrows, "Dabaadendiziwin: Practices of Humility in a Multi-Juridical Legal Landscape" (2016) 1 Windsor YB Access Just 149–166; Pooja Parmar, *Indigeneity and legal pluralism in India: claims, histories, meanings*, Cambridge studies in law and society (New York, NY: Cambridge University Press, 2015).

²¹⁶ Bano, *supra* note 70 at 103.

²¹⁷ Caroline Ramazanoğlu & Janet Holland, *Feminist Methodologies Challenges and Choices* (London, UK: Sage, 2002) at 106, 107, 110. The authors highlight that: "[Not] all of those who are similarly politically positioned in categories of difference necessarily share the same knowledge claims, just as women need not achieve a feminist standpoint."

of Santos' "sociology of absences," recognising that there is no social justice without epistemic justice. The epistemologies of marginalized people, who are excluded from those processes, offer alternative ways of thinking to dominant epistemologies.²¹⁸ For Santos, the application of marginalized epistemologies (or "epistemologies of the south") in social and political realms is fundamental to create more just societies. And the democratization of knowledge production is central in any effort for just global and local governance systems.²¹⁹ The experiences of the research participants are crucial to developing a more integral approach to environmental justice, proposing solutions that address the specific issues for Indigenous peoples affected by infrastructure decision-making.

4.3. Field questions

Using principles from decolonizing and feminist methodologies, the comparative case study method provides the tools for translating this project's research goals and questions into field questions, the ones asked throughout empirical research. In other words, these methodologies inform the more specific issues that constitute the broader goals of this analysis. The field questions aim at accounting for the experiences of Indigenous peoples, activists, and decision-makers with the practice of impact assessment in the two case studies. I combine the information collected through the responses to the field questions, the literature review, and impact assessment documents to analyse, compare the case studies, and answer the research questions.

Research question: Can state-led impact assessment be a way to address environmental justice concerns of Indigenous peoples affected by natural resource infrastructure?

Field Questions:

- *What were the ways and the extent of Indigenous communities' engagement in the EIA processes?*
- *Did Indigenous communities bring specific issues about how the project would affect their ways of life, being in the land?*
- *Were these issues addressed in impact assessment processes? If so, to what extent and how were they addressed?*

Research question: If the answer to the first question is positive, to what extent and how can impact assessment deal with these impacts?

Field questions:

- *Did Indigenous peoples' participation in impact assessment affect the processes and the outcomes at all?*

²¹⁸ Boaventura de Sousa Santos, *Epistemologies of the South: Justice Against Epistemicide*, 2nd ed (New York: Routledge, 2016).

²¹⁹ Boaventura de Sousa Santos, *The End of the Cognitive Empire. The Coming of Age of Epistemologies of the South* (London: Duke University Press, 2018) at 161.

- *What is the role of Indigenous cultures, laws, and traditions in the assessments?*
- *Do impact assessment frameworks recognise Indigenous jurisdictions over the issues dealt with by the assessment?*

Research question: Can impact assessment lead to collaborative decision-making between the state and Indigenous peoples?

Field questions:

- *How Indigenous cultures, laws, and traditions could affect processes and outcomes?*
- *Would collaborative assessments be useful for equitable processes and outcomes?*
- *How to build collaborative assessments with actual sharing of decision-making power?*

To conduct empirical research and apply those research questions in both case studies, I obtained ethics approvals from the University of Victoria Human Research Ethics Board and the University of Pará Research Ethics Commission. The Brazilian research ethics process is comprised of two stages. First, I applied to the National Research Ethics Commission through a national online database. This Commission analyses the application, requests clarifications, documents, or alterations to the application. Once accepted, it forwards the application to a local university ethics commission, in my case, The Pará University Research Commission.

After obtaining research ethics approval, in Brazil, I spent three weeks in the town of Altamira (in March 2018), in Pará, the closest town to the Belo Monte dam. I interviewed eighteen research participants.²²⁰ Among the eighteen research participants, eleven were Indigenous, from seven different traditional territories. The interviews took place in person in various locations in the city of Altamira: on the streets, in restaurants and bars, on a boat tour around the Belo Monte reservoir, in the participants' residences, in social/environmental groups and NGOs bases, and in a government branch office space. One interview happened over the phone. When I first arrived in the city, I learned from other researchers that locals had demonstrated discomfort in having their interviews recorded and signing any written documents. While many Indigenous peoples in the region are fluent in Portuguese, there are low levels of literacy. But mostly, there is certain distrust regarding signing written documents due to the history of manipulating Indigenous peoples by the government and industry to obtain support for developments. Once I learned about this, I shared my concern, by email, with the University of Victoria Human Research Ethics Board, who advised me to explain the research and the role of interviewees in detail to

²²⁰ I have not asked about the participants' sex and/or gender. In hindsight I learned that I could have collected that information in order to (partially, at least) potentially characterize gender discrimination in the representation of Indigenous leaderships, government branches, and activism. This does not mean, however, that the number of research participants that I was able to contact is actually representative of those segments of the population.

possible participants. The Board also advised me to obtain previous verbal consent and provide all participants with a copy of the consent form with my signature and contact information and my supervisor's and the Research Ethics Board's contact information. Five of the eighteen interviews were recorded. I obtained verbal consent from all participants before starting the interviews and asked if they had any questions and concerns. I obtained written consent from all non-Indigenous participants (state government officials and social/environmental movements' activists). All of them agreed to participate without reservations. One of my motivations to complete this research project is the fact that two Indigenous leaders who I interviewed asked me to take their concerns to Canada and help them make their cause visible internationally.

In Canada, I spent almost three weeks (divided into two different occasions – July 2018 and April 2019) in Fort St. John and the Peace Region. I interviewed twenty-one research participants. Among the twenty-one participants, two were members of the joint review panel for the impact assessment of Site C, eleven were Indigenous and one non-Indigenous First Nation staff, from five different First Nations. I tried to contact the leadership of three other First Nations in the region, who did not respond to or explicitly declined my request for an interview. The interviews took place in person, in my office space, in Indigenous governments' offices, restaurants, interviewee's residences, outdoors by the Peace River, in an Indigenous association's office space. The participants read and signed the consent form prior to the interview. I interviewed two participants (one couple) jointly over the phone. I read the consent form to them, and they provided oral consent to participate. All interviews were recorded.

I transcribed all the interviews, translated the Brazilian interviews from Portuguese to English, printed the transcriptions, organized them, colour-coded the transcripts according to the issues related to environmental justice, and analysed the results. I did not use a software or an assistant to help me in the process of transcription, coding, and analysis. I decided to do it myself manually to preserve participants' confidentiality and anonymity and to create more opportunities for myself to reflect on what I had heard during the interviews. In the analysis of the interviews, I compared the similarities and differences in the historical, political, and legal contexts of both case studies. I compared the differences and similarities in the data results and made conclusions and recommendations by contrasting the results with environmental justice principles, as described in the literature review chapter. I used the principles based on environmental justice to code, analyse, and compare the interviews' results.

5. Conclusion

In this chapter, I lay out the methodology used in this research project. I justify my choice of research topic and my theoretical approach. I also outline my research questions, some core concepts, and methods. I explain why comparative case study analysis is relevant for this study, and I outline other methodologies that inform the analysis. I finally describe the process of interviewing, transcribing, coding, and analysing the interviews.

In the next chapter, I review the literature on environmental and natural resource decision-

making, impact assessment, and environmental justice to build the set of equity principles that serve as the analytical framework of this research. In the following two chapters, chapters four and five, I describe the data results of the Brazilian and Canadian case studies. In the sixth chapter, I provide analysis and comparison of the case studies' results. In the concluding chapter, I provide answers to the research questions and make recommendations to impact assessment laws and policies for large development projects' decision-making. The recommendations aim at projects' reviews equitably addressing Indigenous peoples' concerns about adverse impacts of projects on their territories.

Chapter 3: Literature Review: Environmental Justice in Impact Assessment and Decision-Making

1. Introduction: Situating the Chapter in the Dissertation

The purpose of this research project is to explore whether (and possibly how) environmental impact assessment (EIA), as a form of environmental decision-making, can address disparate adverse effects of large infrastructure projects on Indigenous people. I take a particular interest in law as a tool that shapes government-mandated EIA. Within this broader objective, this literature review aims at constructing a set of principles based on equitable considerations by which to evaluate environmental decision-making and EIA as a particular procedural framework for decision-making about development projects. The set of principles will be constructed based on the Environmental Justice (EJ) scholarship and will contribute to investigating whether and how EIA can promote equitable treatment for Indigenous peoples in environmental decision-making regarding disparate adverse effects.

I examine EIA as one tool of environmental and natural resource decision-making about infrastructure and development projects. But the paths for environmental decision-making and governance are broader than what EIA can offer. Although EIA is one crucial regulatory tool, it is not the only one. EIA can complement strategic and regional assessments, for example. Land-use, watershed, and marine plans and government-to-government agreements between Indigenous and colonial governments can be environmental decision-making tools.

Environmental impact assessment, as an environmental decision-making approach, is a process that identifies possible environmental adverse effects of specific projects. EIA also proposes measures to mitigate these effects, evaluates the significance of the impacts that cannot be mitigated, and considers whether they are justifiable under particular circumstances.²²¹ The environmental decision-making and EIA literature provide sophisticated critiques of the processes' inability to provide equitable treatment based on different theoretical perspectives and interdisciplinary approaches.²²² However, there has been little evidence of change in practice that would point to sufficient improvement in assessing adverse effects on marginalized communities and considering these effects in environmental decision-making.²²³ Environmental impact assessment laws and policies reinforce asymmetries and inequalities because they do not take into account the economic,

²²¹ Kevin S Hanna, *Environmental Impact Assessment: Practice and Participation*, 2d ed (Oxford: Oxford University Press, 2009) at 3-17.

²²² Tim Richardson, "Environmental assessment and planning theory: four short stories about power, multiple rationality, and ethics" (2005) 25:4 *Environmental Impact Assessment Review* 341-365; Tony Jackson & Barbara Illsley, "An analysis of the theoretical rationale for using strategic environmental assessment to deliver environmental justice in the light of the Scottish Environmental Assessment Act" (2007) 27:7 *Environmental Impact Assessment Review* 607-623.

²²³ Ron Pushchak & Ann Marie Farrugia-Uhalde, "Social Impact Assessment and High-Level Radioactive Waste Disposal: The Canadian Concept and Aboriginal Response" in Kevin S Hanna, ed, *Environmental Impact Assessment: Practice and Participation*, 2d ed (Oxford: Oxford University Press, 2009) 131.

cultural, and spiritual specificities and vulnerabilities of affected individuals.²²⁴

A central notion of EJ is addressing inequity experienced by people who are marginalized in some way. It is because of this marginalization, partially due to systemic discrimination based on factors such as race, class, or gender, that they experience disparate effects of differing environmental quality and lack of access to natural resources.²²⁵ The EJ literature has most recently and extensively explored inequity to Indigenous people through environmental decision-making.²²⁶ The literature's initial emphasis was on issues about how pollution (e.g. waste dumps and nuclear initiatives) disproportionately affects communities of colour and/or of lower socioeconomic classes, particularly in urban areas of the U.S.²²⁷ The EJ literature has further developed into a broader discussion of the application of EJ to environmental decision-making in different kinds of development, particularly in infrastructure and resource development, which includes hydropower dams.²²⁸ Environmental justice's three essential components most thoroughly explored and agreed upon in the academic literature are: challenging inequitable distribution of environmental harms and resources; seeking procedural justice, including meaningful participation in environmental decision-making; and pointing to the recognition of marginalized groups who are most affected by decision-making.²²⁹

In the first part of this chapter, I provide a general overview of environmental decision-making and EIA and outline sensitive issues that have implications for equitable treatment of adversely affected communities. Based on the literature, I describe the critiques of both environmental decision-making and EIA. In the second part of the paper, I discuss the EJ scholarship and examine how the literature addresses the equity issues mentioned in the critiques of environmental decision-making and EIA. Based on the EJ literature applied to specific case studies of decision-making, I then propose a set of equity principles that will

²²⁴ Holifield, "Environmental Justice as Recognition and Participation in Risk Assessment", *supra* note 90 at 592.

²²⁵ For a broad definition of Environmental Justice, see Schlosberg, *supra* note 51; Bell, *supra* note 51.

²²⁶ Mick Hillman, "Situated justice in environmental decision-making: Lessons from river management in Southeastern Australia" (2006) 37:5 *Geoforum* 695–707; Westra, *supra* note 53.

²²⁷ Robert W Lake, "Volunteers, NIMBYs, and Environmental Justice: Dilemmas Of Democratic Practice" (1996) 28:2 *Antipode* 160–174.

²²⁸ See, e.g., Leire Urkidi & Mariana Walter, "Dimensions of Environmental Justice in Anti-Gold Mining Movement in Latin America" (2011) 42 *Geoforum* 683; JoAnn Carmin & Julian Agyeman, eds, *Environmental inequalities beyond borders: local perspectives on global injustices*, Urban and industrial environments (Cambridge, MA: MIT Press, 2011); Sze et al, "Defining and Contesting Environmental Justice", *supra* note 156.

²²⁹ The work of Walker is cited by most recent EJ literature for outlining the concept of EJ around three basic notions – distribution, recognition, and procedure. See Walker, "Beyond Distribution and Proximity", *supra* note 86; Although most authors agree on those aspects of EJ, others have indicated the presence of additional elements. Kuehn, for instance, includes social and corrective justice but does not identify recognition in his taxonomy of EJ. I understand that Walker's categorization does refer to social and corrective justice concerns, although not explicitly. Walker's classification of EJ aspects also demonstrates a better fit for this type of research, especially considering the role of recognition as central to analyses related to justice for Indigenous peoples. See Robert R Kuehn, "A Taxonomy of Environmental Justice" (2000) 30:9 *Env'tl L Rep News & Analysis* 10681–10703.

be used to examine whether and how EIA can serve as an instrument to address disparate impacts of projects and promote equitable treatment for Indigenous communities.

2. Environmental Decision-Making

2.1. General Concept, Purpose, and Challenges

Environmental decision-making is the process through which a government decides whether to grant permission for a natural resources development proposal or any project that affects the natural and human environment.²³⁰ The literature points out that the ultimate purpose of environmental decision-making is to ensure sustainable development.²³¹ In other words, changes to the environment in order to provide services and goods to the present generation must ensure the preservation of nature and resources for the next generations.²³² Law plays a significant part in the decision-making process by establishing procedural rules and requirements for projects or activities that may negatively affect the environment. It might also define, based on scientific knowledge, the levels of environmental change a particular project may cause.²³³ An environmental and natural resource decision-making process is a procedural, administrative review conducted by a state agency, based on an application with information provided by the proponent, which might lead to a project permit. This review process also establishes the mitigation and compensation measures the development proponents must accomplish and the conditions with which they must comply.²³⁴ Although the law provides rules and requirements for this review, the process involves significant levels of discretion by environmental decision-makers.

The increasing specialization of environmental agencies worldwide to conduct the process and the amount of information to make accurate decisions result from a growing

²³⁰ Chad J McGuire, *Environmental Decision-Making in Context: A Toolbox* (Boca Raton, FL: CRC Press, 2012) at 1-6.

²³¹ Sanford E Gaines, "Reflexive Law as a Legal Paradigm for Sustainable Development Symposium: Learning Sustainability" (2002) 10:1 & 2 *Buff Envtl LJ* 1-24.

²³² The mainstream scholarship on environmental decision-making defines sustainable development based on the concept provided in the Brundtland report: "Development that meets the needs of the present without compromising the ability of the future generations to meet their own needs," *Brundtland Report*, by World Commission on Environment and Development (Oslo: United Nations, 1987). Nevertheless, a more holistic approach to socio-ecological systems considers other aspects, such as development that respects and cooperates with traditional ways of living, being, and knowing – understanding the role of people as interdependent parts of ecosystems, and natural elements beyond resources to be developed or exploited. See, e.g., Leena Heinämäki, "Right to Be a Part of Nature: Greening Human Rights via Strengthening Indigenous Peoples, The" (2012) 4 *Y B Polar L* 415-474.

²³³ On the importance of regulation on environmental policy design, see Matthew J Lindstrom, "Procedures without Purpose: The Withering Away of the National Environmental Policy Act's Substantive Law" (2000) 20 *J Land Resources & Envtl L* 245-268.

²³⁴ M'Gonigle et al, *supra* note 36.

recognition of environmental concerns.²³⁵ Environmental concerns, which motivate environmental decision-making, encompass aspects of both human and ecological wellbeing. This is one of the reasons decision-making has been becoming highly complex, as it includes interwoven issues of balancing human interests and ecological protection.²³⁶ In conducting environmental decision-making, agencies consider a broad array of information regarding the changes expected from a project, its costs and benefits, and the diverse interests and points of views involved, interests such as of the state, society as a whole, biodiversity, and the local communities affected. For this reason, scholarship demonstrates that environmental decision-making occurs at the intersection of science, economics and value judgment.²³⁷ In this context of balancing diverse interests and impacts, the law has little part in defining what information environmental decision-makers must consider.

Environmental decision-making also involves issues of national and international attention, such as the provision of resources for society in general and the contribution of any one project to global problems such as climate change. However, it also involves context-based attributes regarding how development affects the local environment, including the people that live in the region where a project is to occur. Environmental decision-making, thus, requires a delicate balance between economic development, global ecological concerns, and context-based environmental impacts.²³⁸ Authors argue that decision-making processes must observe basic general standards such as human health and wellbeing, ecosystem wellbeing, and aesthetic considerations for the environment.²³⁹

Beyond decision-making involving complex technical and scientific standards and cost-benefit analysis, it also includes ethical and moral concerns.²⁴⁰ In fact, part of the literature indicates that issues of value judgment are of greater relevance to the process, as they dictate how to conduct the assessment and what kind of outcome is desirable.²⁴¹ There is academic and political support for including subjective values in decision-making and implicating a diversity of worldviews.²⁴² In an attempt to open environmental decision-

²³⁵ Walter A Rosenbaum, *Environmental politics and policy*, 8th ed (Washington, D.C: CQ Press, 2011) at 21, 22.

²³⁶ Gregory A Kiker et al, "Application of multicriteria decision analysis in environmental decision making" (2005) 1:2 *Integrated Environmental Assessment and Management* 95–108.

²³⁷ J. McGuire, *supra* note 230 at 3.

²³⁸ For an analysis of positive and negative distributional aspects of decision-making about large dams, see, e.g., Giuseppina Siciliano & Frauke Urban, "Equity-based Natural Resource Allocation for Infrastructure Development: Evidence From Large Hydropower Dams in Africa and Asia" (2017) 134 *Ecological Economics* 130–139.

²³⁹ J. McGuire, *supra* note 230; *Keeping Pace: Improving Environmental Decision-Making in Canada*, by Robert Roach & Barry Worbets (Canada West Foundation, 2012). This report discusses the balancing of interests in environmental decision-making, from an experts' points of view.

²⁴⁰ Kiker et al, *supra* note 236.

²⁴¹ Richardson, "Environmental assessment and planning theory", *supra* note 222.

²⁴² Jens Newig, "More Natural Resource Management Through Participatory Governance. Taking Stock of the Conceptual and Empirical Literature – and Moving Forward" in Karl Hogl, ed, *Environmental*

making to different values, moral and ethical concerns, government agencies offer public participation opportunities. As will be discussed further, the level of how open the decision-making process should be is, in fact, a contested matter.

Moreover, studies demonstrate that the weight of decision-makers' ethical and moral values, including personal biases, affect the results more significantly.²⁴³ Additionally, political and economic forces may direct decision-makers favouring development proposals.²⁴⁴ Scholars and practitioners have demanded environmental decision-makers to consider inequity between the state, participants, and developers, regarding who can influence the process and outcomes and the sources of knowledge that count as valid in a decision.²⁴⁵

Law has contributed little to respond to the challenges embodied in environmental decision-making. Regarding the types and complexity of information, there are no clear criteria for selecting the relevant knowledge bodies to be integrated into the decision. In addition, law shows limitations in speaking to the complexity and adaptability of socio-ecological systems. Socio-ecological systems are complex networks of connections without explicitly rigid boundaries, leading to foreseeability and uncertainty concerning legal approaches to environmental decision-making. Laws also focus on specific and fragmented aspects, such as water, air, land, as if they could exist apart from the whole of a socio-ecological system.²⁴⁶ Law often establishes uniform standards to be applied to a broad geographic scale, without significant account for local context specificities. Scholars argue that decision-makers cannot know enough to make a set of one-shot decisions and expect long-term ecological results.²⁴⁷

Finally, laws have little part in defining how public engagement occurs in environmental decision-making. Frequently, participation criteria vary according to each process-specific

Governance The Challenges of Legitimacy and Effectiveness (Cheltenham, UK: Edward Elgar Publishing, 2012) 46.

²⁴³ Robert R Kuehn, "Bias in environmental agency decision making" *Environmental Law* (2015) 992.

²⁴⁴ Aguilar-Støen & Hirsch, "Environmental Impact Assessments, local power and self-determination", *supra* note 47; Duarte-Abadía, Boelens & Roa-Avendaño, *supra* note 21.

²⁴⁵ Rebeca Neaera Abers, Marilia Silva de Oliveira & Ana Karine Pereira, "Inclusive Development and the Assymetric State: Big Projects and Local Communities in the Brazilian Amazon" (2016) 53:6 *Journal of development studies* 1–16.; Siciliano & Urban, "Equity-based Natural Resource Allocation for Infrastructure Development", *supra* note 238.

²⁴⁶ Ruhl, "Thinking of Environmental Law as a Complex Adaptive System", *supra* note 103; Jody Freeman & Daniel A Farber, "Modular environmental regulation" *Duke Law Journal* (February 2005) 795. Freeman's and Farber's article discusses the interaction between environmental regulation and resource management to designing governance institutions and attending long-term demands for environmental protection.

²⁴⁷ Annecoos Wiersema, "A train without tracks: rethinking the place of law and goals in environmental and natural resources law" *Environmental Law* (2008) 1239 at 1249.

review and on state agencies and decision-makers' discretionary powers.²⁴⁸

This section looked at two aspects of environmental decision-making in the literature that are crucial for integrating equity into the process and outcomes. First, the types of knowledge and information have a significant impact on shaping a decision. Diverse categories of information, such as scientific, technical, communities' stories, and traditional knowledge, serve as the basis for different discourses that play out in a decision-making process. Second, intertwined with knowledge construction issues, this part addresses decision-making power, opportunities for meaningful public engagement, and its consequences to environmental decision-making.

2.2. Knowledge Selection in Environmental Decision-making

A general assumption in the literature is that a good decision is based on objective and neutral arguments provided by scientific and technical information.²⁴⁹ This knowledge serves as the standard through which to evaluate and weigh social, ecological and economic interests.²⁵⁰ The use of scientific knowledge to inform decisions regarding environmental and natural resource development contributes to understanding what decision-makers can and cannot know about how the environment will react to human-led changes.²⁵¹ In other words, it helps to establish the possible physical effects of a decision. This type of knowledge carries an impression of legitimacy, certainty, and authority, supposedly desirable in environmental decision-making. It acts as technical information, usually seen as objective and independent of bias.²⁵²

However, the environmental decision-making literature increasingly contains critiques that scientific and technical information do not hold absolute authority, as they are subject to conflicting views, perceptions and preferences, just as are other kinds of data.²⁵³ Recently there have been concerns over the validity and credibility of scientific advice for a variety of reasons. Challenges in communication between scientists and decision-makers in establishing essential and uncertain information and translating science into practice are issues that affect how assessors take scientific knowledge into account.²⁵⁴

Further, there has been an increasing plurality of scientific knowledge sources and

²⁴⁸ Shaun Fluker & Nitinkumar Srivastava, "Public Participation in Federal Environmental Assessment under the Canadian Environmental Assessment Act 2012: Assessing the Impact of 'directly affected'" (2016) 29 *Journal of Environmental Law and Practice* 65–81.

²⁴⁹ Roach & Worbets, *supra* note 239; Kiker et al, *supra* note 236.

²⁵⁰ Francisco Benzoni, "Utilitarianism" in Willis Jenkins & Whitney Bauman, eds, *Berkshire Encyclopedia of Sustainability Vol 1: The Spirit of Sustainability* (Berkshire: Berkshire Publishing Group, 2010).

²⁵¹ J. McGuire, *supra* note 230 at 9.

²⁵² Rosenbaum, *supra* note 235 at 69.

²⁵³ J. McGuire, *supra* note 230 at 7.

²⁵⁴ Michael Pregering & Michael Böcher, "Normative and Analytical Perspectives on the Role of Science and Expertise in Environmental Governance" in Karl Hög et al, eds, *Environmental Governance The Challenges of Legitimacy and Effectiveness* (Cheltenham, UK: Edward Elgar Publishing, 2012) 199.

sophisticated scientific information, adding a layer of complexity in selecting information to guide the process.²⁵⁵ The literature points to growing claims for the inclusion of diverse and more contextualized knowledge.²⁵⁶ Authors also point to incorporating community and traditional knowledge to strengthen consideration for local and traditional views of the environment in the decision-making. These views often provide what are considered ‘intangible’ aspects (such as cultural, spiritual, and relational) to the decision-making process, with a more long-term and nuanced understanding of watershed conditions than shown by western science.²⁵⁷ The inclusion of community and traditional knowledge may also help build trust among parties and increase compliance with environmental decisions.²⁵⁸ To illustrate the policy relevance of the issue, the 1994 U.S. Executive Order 12898, which mandated that U.S. federal government agencies incorporate environmental justice in their decisions, encouraged collecting community knowledge for decision-making purposes. And many U.S. agencies had provisions, from even before the order, about using community knowledge.²⁵⁹

This discussion identifies a need for environmental decision-making to include local values and concerns, questioning how different value orientations motivate the decision and how participants perceive and process information in various ways.²⁶⁰ Scholarships demonstrate how diverse perspectives play out in defining which information is relevant to each decision. Melissa Nursey-Bray et al., for instance, layout the perspectives of government agents and Indigenous community members regarding hunting practices in Australia. Community members prioritized cultural wellbeing, while managers focused on biodiversity outcomes. Managers were concerned with hunting methods, while community members believed they had the right to hunt using whatever methods were appropriate for their traditional culture.²⁶¹

²⁵⁵ Briony M Lalor & Gordon M Hickey, “Strengthening the Role of Science in the Environmental Decision-Making Processes of Executive Government” (2014) 27:2 *Organization & Environment* 161–180.

²⁵⁶ Marleen Buizer, Bas Arts & Kasper Kok, “Governance, Scale and the Environment: The Importance of Recognizing Knowledge Claims in Transdisciplinary Arenas” (2011) 16:1 *Ecology and Society* 21.

²⁵⁷ Boundary organizations may have a significant role in this process by providing ways to connect different understandings of ecosystems (including Indigenous’) with environmental policy and natural resource management, reducing the gap between the diverse sources and types of information and knowledge and the requirements of decision makers. See, e.g., the work of The Nature Conservancy in the Great Bear Rainforest, online: Canada Great Bear Rainforest (website) <<https://www.nature.org/ourinitiatives/regions/northamerica/canada/placesweprotect/great-bear-rainforest.xml>>

²⁵⁸ Elizaveta Ristroph, “Integrating Community Knowledge into Environmental and Natural Resource Decision-Making: Notes from Alaska and Around the World” (2012) *Washington & Lee Journal of Energy, Climate and Environment* 81–133.

²⁵⁹ *United States Executive Order 12898 Federal Actions To Address Environmental Justice in Minority Populations and Low-Income Populations*, 59 FedReg 7629 (1994).

²⁶⁰ Andreas Nilsson et al, “Public acceptability towards environmental policy measures: Value-matching appeals” (2016) 61 *Environmental Science & Policy* 176–184.

²⁶¹ Melissa Nursey-Bray, Helene Marsh & Helen Ross, “Exploring Discourses in Environmental Decision Making: An Indigenous Hunting Case Study” (2010) 23:4 *Society & Natural Resources* 366–382.

Therefore, it is clear that using different bodies of knowledge in decision-making addresses a limitation shown by the more traditional approach to receiving technical and scientific information. Nevertheless, it is still unclear how information impacts the results - how these diverse 'knowledges' inform a decision. While there is growing literature about standardizing values and priorities for environmental decision-making,²⁶² practice shows that each process comprises unique negotiations, depending on how the decision-makers and the public participants perceive a certain development project.²⁶³

Further, scholarships on environmental decision-making include a rich discussion around the bodies of knowledge that inform (or that should inform) the decision and the challenges in selecting and incorporating them into practice. The matter speaks to equitable treatment for Indigenous people in the sense that what is seen as marginalized categories of information, such as traditional knowledge, may not just fill in the gaps in science but claim for equal validity and weight to influence decision-making.²⁶⁴

Another recurrent point in the literature is that science is limited; therefore, decision-makers must act based on the best evidence available. This argument, however, encompasses a different level of discretion about who decides what the best evidence is and through which criteria.²⁶⁵ In other words, different interests can interpret scientific data differently.²⁶⁶ Decision-making procedures are designed to ensure that decisions are well informed, with the engagement of a broad array of stakeholders. But even when developers meet those conditions, authors still fear that decision-makers will decide mostly based on their immediate concerns and personal and subjective approaches to development.²⁶⁷ Decision-makers' world-views are the basis of decisions, often biased towards development. For this reason, there is the need for a regulatory model for environmental decision-making that forces decision-makers to adopt viewpoints that are not necessarily aligned with their short-term interests, committing to the larger goals shaped through the participation of affected communities.²⁶⁸

Finally, the literature points to the value of public participation in negotiating knowledge construction and critiques against it. The next section addresses public participation in environmental decision-making, particularly its regulatory limitations, alleged benefits, obstacles, and influence on the outcome.

²⁶² Emma Bullen, "Legislative Limits on Environmental Decision-Making: The Application of the Administrative Law Doctrines of Jurisdictional Fact and Ultra Vires" (2006) 23:4 Environmental and Planning Law Journal 265-279.

²⁶³ Richardson, "Environmental assessment and planning theory", *supra* note 222.

²⁶⁴ Buizer, Arts & Kok, "Governance, Scale and the Environment", *supra* note 256; Ciaran O'Faircheallaigh, "Public Participation and Environmental Impact Assessment: Purposes, Implications, and Lessons for Public Policy Making" (2010) 30 Environmental Impact Assessment Review 19-27.

²⁶⁵ Rosenbaum, *supra* note 235 at 146.

²⁶⁶ DiMento & Ingram, "Science and Environmental Decision Making", *supra* note 34 at 288.

²⁶⁷ Wiersema, *supra* note 247 at 1264.

²⁶⁸ *Ibid.*

2.3. Public Participation in Environmental Decision-making

This section contains a discussion on the role of public involvement in environmental decisions, including arguments favouring participation to improve the quality and legitimacy of decisions, the different approaches to participation taken by the state, and obstacles and natural limits to meaningful participation. This analysis does not address the literature on public participation broadly, but participation exclusively as a principle and a tool for environmental decision-making. The purpose of the section is to identify further the implications of public engagement to equitable treatment in the decision-making process and results.

Public participation in environmental decision-making is one tool to include citizens in natural resource and environmental governance.²⁶⁹ It is considered an essential component of environmental decision-making, mainly for two reasons: First, it contributes to the quality of decisions; and second, it ensures legitimacy concerning the fair process and public acceptance of results.²⁷⁰

Regarding the quality of decisions, public participation allows participants to provide information to decision-makers, particularly qualitative information from local knowledge.²⁷¹ It may also contribute to a decentralized process, which allows for better accountability and transparency, as citizens have more options to scrutinize decision-makers' decisions.²⁷² Public engagement may also help establish environmental priorities in resource management and offer a more extensive range of solutions to environmental challenges than non-participatory processes.²⁷³

Regarding legitimacy and acceptance of decisions, procedural justice literature indicates that citizens' opportunities to participate in the decision-making process affect their level of satisfaction with the decision.²⁷⁴ In other words, if meaningful opportunities to participate precede a decision-making result, it is expected that the public will better accept this result. Participation may also increase trust between participants and decision-makers and confidence in the decision-making process,²⁷⁵ mainly because participatory processes require absolute transparency and accountability levels.

²⁶⁹ Ané du Plessis, "Public participation, Good Environmental Governance and fulfilment of Environmental rights" (2008) 11:2 PELJ 170–200 at 172.

²⁷⁰ Newig, *supra* note 242.

²⁷¹ Marc B Mihaly, "Citizen Participation in the Making of Environmental Decisions: Evolving Obstacles and Potential Solutions through Partnership with Experts and Agents Special Edition: Environmental Interest Dispute Resolution: Changing Times - Changing Practice" (2009) 27 Pace Env'tl L Rev 151–226.

²⁷² Plessis, *supra* note 269.

²⁷³ *Ibid.*

²⁷⁴ David L Markell, "Understanding citizen perspectives on government decision making processes as a way to improve the administrative state" (2006) 36:3 Environmental Law 651–708.

²⁷⁵ *Ibid.*; Thomas Dietz & Paul Stern, *Public Participation in Environmental Assessment and Decision Making* (Washington, DC: The National Academies Press, 2008) at 33.

Notwithstanding, there is disagreement among authors whether public participation leads to better results and legitimacy in environmental decision-making.²⁷⁶ Some scholars suggest that public participation can be an instrument of manipulation when addressed only as a check box for developers to achieve their goals.²⁷⁷ In practice, it may serve a range of purposes and generate various outcomes, depending on the level of citizen power to shape results. It may merely aid decision-makers by providing information and acceptability to the process. At a different level, participation can provide collective, shared decision-making power between the state and participants. And at the highest level, it may reconstitute decision-making structures by involving socially excluded groups and eroding marginalization.²⁷⁸ Groups pushing for equal power to influence environmental decisions often need to work outside formal decision-making processes first to enhance their negotiation position, and then gradually insert themselves in more substantial roles in state-led processes.²⁷⁹

For participation to actually change decision-making structures by including marginalized affected groups, both in terms of specific projects and systemic decision-making structures, authors argue that participatory procedures must occur early in the process, not only for particular development proposals but also for larger purposes such as shaping policies, plans, and programs.²⁸⁰ This level of participation requires opportunities to be meaningful, in the sense that they have real weight in shaping the result.²⁸¹ It also requires citizens to co-design procedural and substantive rules for the decision-making, such as which bodies of knowledge and information to consider, and the criteria by which to judge and classify information.²⁸² Finally, public participation requires transparency of process rules and standards, as well as accessible information.²⁸³

There are obstacles to meaningful participation in environmental decision-making related to access to scientific and technical information, the level of expertise involved in the decision-making, increasing complexity and, technical language. Lay participants usually lack the expertise to translate information, engage in the process, and make their arguments heard. Decision-makers often disregard public input outside of expert knowledge.²⁸⁴ It is, therefore, not just a problem of access to information and opportunities to participate, but understanding the data and being able to challenge it. Access to funding for participatory activities, such as hiring technical consultants, attorneys, travel, filing, and copying

²⁷⁶ Newig, *supra* note 242.

²⁷⁷ Aguilar-Støen & Hirsch, "Environmental Impact Assessments, local power and self-determination", *supra* note 47.

²⁷⁸ O'Faircheallaigh, *supra* note 264.

²⁷⁹ *Ibid.* at 23.

²⁸⁰ Jackson & Illsley, *supra* note 222.

²⁸¹ Dietz & Stern, *supra* note 275 at 227.

²⁸² Richardson, "Environmental assessment and planning theory", *supra* note 222.

²⁸³ Pregernig & Böcher, *supra* note 254 at 208.

²⁸⁴ Mihaly, "Citizen Participation in the Making of Environmental Decisions", *supra* note 271.

expenses, is one avenue that could mitigate obstacles to participation.²⁸⁵

Although scholars in general widely support public participation, there are few real-life guidelines on how to ensure meaningful community involvement.²⁸⁶ Public participation is not always a mandatory procedure in environmental decision-making, and, when required, regulatory and policy frameworks rarely provide the conditions and processes through which it should occur. Decision-makers' discretionary power often directs citizen engagement.²⁸⁷ Moreover, there is a concern with substantive results, whether citizen input will genuinely impact the decision-making. This concern is a problem that laws and policies have not been able to respond to appropriately. Ciaran O'Faircheallaigh argues that public participation involves issues regarding control over decision-making that are impossible to regulate but must be managed through ongoing negotiation processes.²⁸⁸ Currently, it is more common that political and economic arguments affect the decision much more deeply than the adversely affected communities' desires.²⁸⁹

This subsection provided an overview of some of the arguments favouring public participation in environmental decision-making, some of the different approaches taken by decision-makers, and some of the obstacles and limits to meaningful participation as a way to inform environmental decision-making. Regarding arguments for participation, authors point to its ability to increase the quality and legitimacy of decisions. Concerning the approaches taken by decision-makers, participation serves different purposes, from just providing information and acceptability to creating shared decision-making processes and reconstituting decision-making structures by including marginalized social groups. Despite the possible benefits of public participation in environmental decision-making, there are significant obstacles, such as access to scientific information and expertise, lack of funding for participatory activities, and issues with ensuring that citizens have actual decision-making power to influence decisions. Regarding all these aspects, there is little guidance, both in law and policy, on how public participation takes place. Further, I address public engagement in more detail in the context of EIA, particularly considering Indigenous rights and perspectives.

This section outlined how environmental and natural resources decision-making comprises a review of a particular development project to define whether a permit should be granted. Through this review process, the government agency establishes mitigation and compensation measures and conditions to which proponents must comply. Environmental decision-making uses defined procedural rules to consider and assess scientific

²⁸⁵ *Ibid.* In response to this issue, the US National Environmental Policy Act (NEPA), for instance, has incorporated changes in environmental decision-making processes, providing funding for expenses with participation, including expertise knowledge and legal representation.

²⁸⁶ Plessis, *supra* note 269 at 12.

²⁸⁷ Cliff Prophet, "Public Participation, Executive Discretion and Environmental Assessment: Confused Norms, Uncertain Limits" (1990) 48 U Toronto Fac L Rev 279–303.

²⁸⁸ O'Faircheallaigh, *supra* note 264.

²⁸⁹ Stephen Connelly & Tim Richardson, "Value-driven SEA: time for an environmental justice perspective?" (2005) 25:4 Environmental Impact Assessment Review 391–409 at 396.

information, economic cost-benefits, and moral and ethical values involved in the decision. The literature suggests, though, that law has a minimal role in the review. It mandates what projects will be subject to environmental decision-making but not precisely how. The decision-making legal framework does not provide enough bases for policies to create sufficient binding duties to decision-makers.²⁹⁰ Regarding knowledge selection, the law does not address issues related to the sources, complexity and expertise of information, and it does not lead to the integration of traditional knowledge. In terms of public participation, the law provides little on how participation must occur and how it should inform decisions. Although EIA is one regulatory and policy framework for decision-making that offers some degree of structure for the review, it is still a highly contested process, usually regarded as unable to deliver equitable treatment to affected communities. In the next section, I outline EIA's concept, purpose, procedural stages, public participation procedures and consultation with Indigenous people affected by development projects.

3. Environmental Impact Assessment

3.1. Concept and Purpose

This section contains a description of EIA as one type of environmental decision-making tool. Here I outline its principles and how jurisdictions usually conduct the assessment – the stages and standard requirements of projects' review. The section also lays out the role of public participation, consultation with Indigenous people and issues surrounding free, prior, and informed consent. It finally describes the main critiques of EIA in the literature.

As an internationally accepted and used regulatory tool, EIA is a procedural framework for environmental and natural resources decision-making about specific development projects with significant adverse effects on the environment.²⁹¹ The process is designed to determine the need for and consequences of a proposed project; assess alternatives that may have fewer adverse effects; define mitigation measures that reduce the impacts, and provide the basis for justifying or refusing a project.²⁹² Environmental impact assessment laws and policies typically do not set out substantive, objective or performance-based criteria for decision-making but mainly establish procedural rules for the review process.²⁹³

The United States, through the National Environmental Protection Agency (EPA), was the first country to adopt EIA as a state decision-making tool in 1969. The EPA required federal agencies to document how they considered the environment in their decision-

²⁹⁰ Bullen, *supra* note 262.

²⁹¹ For the theory of EIA see, e.g., Holder, *supra* note 38; John Glasson, Riki Therivel & Andrew Chadwick, *Introduction to environmental impact assessment*, 3rd ed, The natural and built environment series (London ; New York: Routledge, 2005).

²⁹² Toby Kruger, "The Canadian Environmental Assessment Act and Global Climate Change: Rethinking Significance" (2009) 47:1 Alberta Law Review 161–183.

²⁹³ Holifield, "Environmental Justice as Recognition and Participation in Risk Assessment", *supra* note 90 at 592.

making to approve projects or shape policies.²⁹⁴ The U.S. framework influenced various other nation-states and international organizations to institute similar forms of environmental assessment.²⁹⁵ External agencies may mandate nation-states' EIA requirements. For instance, in 1974, the Organization for Economic Cooperation and Development (OECD) adopted guidelines for EIA procedures and methods for member states to assess the environmental impacts of significant public and private projects.

Similarly, in 1980, the United Nations Environment Programme (UNEP) developed guidelines to improve methodological tools to assess industrial development's potential environmental impacts.²⁹⁶ The World Bank issued an Environmental Assessment Operational Directive (EAOD) in 1990 indicating that borrower countries were responsible for assessing development projects under consideration to ensure that environmental impacts are recognized early and taken into account in projects' design.²⁹⁷ Since the enactment of the first environmental impact assessment laws and policies, in the 1970s through the 1990s, in various countries worldwide, scholars have been investigating different aspects of impact assessment, especially its potential ability to deliver sustainable development. Nevertheless, some of those scholars have pointed out the need for a more integrated approach to sustainability.²⁹⁸

While a significant part of the literature indicates that sustainable development is the ultimate purpose of EIA, EIA may also include other paramount goals (although arguably secondary). One of them is to help decision-makers comprehensively evaluate a project's consequences through a rational and systematic decision-making process. Another goal is to force developers to consider their projects' environmental impacts, seek to minimize these effects, and establish a trust relationship with local actors.²⁹⁹

Project assessment consists of gathering information and providing public participation opportunities. First, EIA integrates scientific information into decision-making.³⁰⁰ Additionally, depending on the regulatory regime, it can allow the involvement of a broad constituency of people - developers, government agents, and affected groups.³⁰¹ The data provided by scientific and technical actors and the participants' inputs deliver information relevant to the decision-making. Principles of EIA commonly observed in the literature

²⁹⁴ Holder, *supra* note 38 at 43.

²⁹⁵ *Ibid.* at 44. Canada, for example, established EIA as a formal requirement for state environmental decision-making in 1973, through the Environmental Assessment and Review Process (EARP). Brazil first adopted EIA in 1981 through the National Environmental Policy Act.

²⁹⁶ John Horberry, "United nations environment programme: Guidelines for industrial environmental impact assessment and environmental criteria for the siting of industry" (1980) 1:2 Environmental Impact Assessment Review 208–210.

²⁹⁷ *The World Bank and the environment: first annual report, fiscal 1990*, by Jeremy Warford & Zeinab Partow, documents.worldbank.org, 9064 (Washington, D.C: The World Bank Group, 1990) at 62.

²⁹⁸ See, e.g., Robert B Gibson, *Sustainability Assessment* (New York: Routledge, 2005).

²⁹⁹ Chen, *supra* note 35.

³⁰⁰ DiMento & Ingram, "Science and Environmental Decision Making", *supra* note 34.

³⁰¹ Dietz & Stern, *supra* note 275 at 118.

are: Clear and strong legislative foundation; procedures that reflect environmental, political and social contexts, responding to different issues; meaningful and effective public involvement; systems targeting problem-solving and decision-making; and process' capacity to ensure compliance.³⁰²

The approval of large infrastructure projects with possible significant adverse effects on the environment, including hydropower projects, usually requires decision-making through an EIA process.³⁰³ The concept of significant adverse effects is of great importance to EIA processes. It sets the thresholds of possible negative impacts and confers the decision-makers' authority to decide what is acceptable, even before information gathering and public participation stages. However, this concept is subject to discussion in the literature, as it is usually not a clear notion in legal and policy texts. In other words, laws and policies do not provide objective criteria for defining what 'significant adverse effect' means for each project. It is a matter of discretionary power and value judgment, for which decision-makers are responsible.³⁰⁴

Moreover, the determination of significant adverse effects is contextual, as it depends on the features of each local socio-ecological system and how development changes it.³⁰⁵ This discussion illustrates some of the limitations of EIA laws and policies and the prominent role of discretion in defining the review process's substantive criteria.³⁰⁶

For EIA to become more effective and comprehensive, the process may include social impact assessment (SIA). This tool incorporates the notion that all changes to the natural environment are inherently social and ecological. Social impact assessment is seen as an instrument to gather information about and analyse how adverse effects to biodiversity impact communities located in a project-specific region.³⁰⁷ Environmental Impact Assessments can also complement Strategic Environmental Assessments (SEA), which are a broader analysis of the effects of plans, policies, and programmes on a particular

³⁰² *International Study of the Effectiveness of Environmental Assessment. Environmental Assessment in a Changing World: Evaluating Practice to Improve Performance, Final Report*, by Barry Sadler (Ottawa: Canadian Environmental Assessment Agency and International Association of Impact Assessment, 1996).

³⁰³ Zhuang Yanhua et al, "Global Environmental Impact Assessment Research Trends (1973-2009)" (2011) 11 *Procedia Environmental Sciences* (2011 2nd International Conference on Challenges in Environmental Science and Computer Engineering (CESCE 2011)) 1499-1507; T B Fischer & B Noble, "Impact assessment research: achievements, gaps and future directions - introduction to the March 2015 special issue of the *Journal of Environmental Assessment Policy and Management*" (2015) 17:1 *Journal of environmental assessment policy and management* 1501001-1.

³⁰⁴ Kruger, "The Canadian Environmental Assessment Act and Global Climate Change", *supra* note 292; Abdurrahman Saygili, "Legal Functions of the Concept of Significance in the Process of Environmental Impact Assessment" (2009) 2 *Ankara B Rev* 25-29.

³⁰⁵ Kruger, "The Canadian Environmental Assessment Act and Global Climate Change", *supra* note 292 at 175.

³⁰⁶ Andrew Green, "Discretion, Judicial Review, and the Canadian Environmental Assessment Act" (2001) 27:2 *Queen's LJ* 785-808.

³⁰⁷ Pushchak & Farrugia-Uhalde, *supra* note 223.

environment. Some authors argue that EIA should be carried out based on the findings of SEA, as the latter provides a higher, earlier, and more strategic framework for specific projects to be considered.³⁰⁸ Environmental Impact Assessment may also include a cumulative assessment of the combination of a specific project's impacts and previous developments in the same region.³⁰⁹

Although the scholarship on EIA has developed significantly in the last decades, Thomas Fischer and Bram Noble point to the need for more long-term, empirical, multidisciplinary research, filling gaps in the literature. Those are gaps, such as studies on criteria for significant adverse effect determination and on ways to strengthen the connection between EIA practice and theory.³¹⁰

The next section outlines the stages through which most regulatory regimes conduct EIA process and the importance of each phase in the review process as a whole.

3.2. General Environmental Impact Assessment Stages

Although each jurisdiction conducts EIA differently, the literature provides a general account of the process order: 1) Framing; 2) Screening; 3) Scoping; 4) Information gathering and assessment; 5) EIA report design; 6) Decision-making; 7) Monitoring.³¹¹ In the first stage, the proponent frames the project providing a description of the development and its possible benefits and environmental effects. The agency then screens the proposal, analysing whether it will likely cause adverse environmental effects, in order to determine the need for EIA. In the third stage, the agency identifies, from all possible impacts and alternatives available, what issues, impacts, and thresholds are relevant for the process to consider.³¹²

Until this moment, in most regulatory systems, the process does not offer formal opportunities for the affected communities and individuals to voice their concerns, opinions, and contributions. For this reason, there is often a lack of community input in establishing the scope of EIA (both in terms of the project's effects over time and on a geophysical space) and directing what information to use in the initial process. In the scoping stage, decision-makers select, from among an infinite variety of issues, which ones are relevant and manageable within a review process. At this point, they also predict the potential environmental problems that may be caused by a project. For these reasons, scoping the assessment has important implications for how the public will participate. It limits the issues, the geographical area, the project elements, and the timeframe that the

³⁰⁸ Robert B Gibson et al, "Strengthening Strategic Environmental Assessment in Canada: An Evaluation of Three Basic Options" (2010) 20:3 Journal of Environmental Law and Practice 175–211.

³⁰⁹ A John Sinclair, Meinhard Doelle & Peter N Duinker, "Looking up, down, and sideways: Reconceiving cumulative effects assessment as a mindset" (2017) 62 Environmental Impact Assessment Review 183–194.

³¹⁰ Fischer & Noble, "Impact assessment research", *supra* note 303.

³¹¹ Hanna, *supra* note 221; Holder, *supra* note 38 at 36.

³¹² Holder, *supra* note 38; Glasson, Therivel & Chadwick, *supra* note 291 at 3.

process will address.³¹³

It is not until the next stage, the actual assessment phase, that public participation takes place. Here, the assessors (who can be agency staff, an appointed review panel or consultants hired by the project proponent) collect the data, predict the impacts, and evaluate the project's cost and benefits. At this point, affected individuals and communities are often allowed to scrutinize project documents, participate in public hearings, offer local knowledge and information, and provide their concerns and critiques.

Based on the materials collected through scientific methods, surveys, public hearings, and documents submitted by the public, the body responsible for the assessment reviews all the information and prepares an EIA report. This is a stage of evaluation in which the assessors determine the significance and the public relevance of potential impacts, attributing values to the facts.³¹⁴ The EIA report contains recommendations for the approval or non-approval of the project and, if applicable, measures to prevent, mitigate, offset, or compensate for adverse effects. The report informs the government agent's decision, although the report's recommendations do not bind the decision-maker. In the final decision, the agency may establish specific conditions that need to be observed by the proponent, usually establishing monitoring and compliance follow-up measures.³¹⁵

From the literature, it is evident how EIA laws and policies establish an often-advanced procedural framework for environmental decision-making. Notwithstanding, authors offer critiques regarding the high levels of discretion and laws' limitations to guide knowledge construction;³¹⁶ to provide objective criteria for scoping the assessment and defining significance;³¹⁷ and deliver early and meaningful public engagement.³¹⁸ I discuss these critiques in more detail further in this chapter. In terms of public participation, in addition to the general procedures referred to in the description of environmental decision-making more broadly, EIA carries specific rules about who and how affected people can get involved in the assessment.

3.3. Public Participation in EIA

Public participation in EIA involves the larger complexities of participation in environmental decision-making in general. While it may lead to a range of social and environmental benefits, public participation faces a series of obstacles in terms of its procedures and its actual impact on decision-making. In EIA, public participation is

³¹³ Mark Squillace, "An American Perspective on Environmental Impact Assessment in Australia" (1995) 20:1 Colum J Envtl L 43-120 at 85-87.

³¹⁴ Holder, *supra* note 38 at 36.

³¹⁵ Glasson, Therivel & Chadwick, *supra* note 291 at 195.

³¹⁶ Saygili, *supra* note 304.

³¹⁷ *Ibid*; Kruger, "The Canadian Environmental Assessment Act and Global Climate Change", *supra* note 292.

³¹⁸ A John Sinclair & Alan P Diduck, "Reconceptualizing public participation in environmental assessment as EA civics" (2017) 62 Environmental Impact Assessment Review 174-182.

commonly a mandatory instrument of the decision-making process, but practices vary widely depending on the regime where it takes place. The EIA report documents and incorporates the participants' input. The decision-makers may take this input into consideration when they make their decision.

The rules for participation vary depending on specific state regulations and policies. They may be more or less restrictive in order to determine who are considered adversely affected individuals, and therefore who will hold the right to participate and to have their input integrated into the decision-making. Some authors argue for flexible and broad criteria to determine adversely affected groups, allowing a more significant number and variety of interested parties.³¹⁹

As already indicated, public participation in EIA usually occurs during the assessment stage of the process and not before, as in the screening and scoping activities.³²⁰ Therefore, it is unlikely that participation will influence the definition of whether the project may cause 'significant adverse effects' or the pool of specific issues and impacts that the review will address. Public hearings and opportunities for public submissions are, therefore, based on a limited framework formed by criteria established earlier.³²¹ These standards guide impact analysis, decisions about what is relevant information, and rules for public participation. For this reason, many scholars argue for the inclusion of earlier opportunities for participation.³²²

As suggested in terms of public participation in environmental decision-making in general, participation in EIA can involve different levels of engagement from the state, developers, and local peoples. It may be carried out superficially and without an accurate representation of local interests, such as in the case study described by Aguilar-Støen and Hirsch in Guatemala.³²³ But it might lead to the inclusion of a vast plurality of opinions and worldviews into the decision-making. It also provides contextual information through community knowledge and local values about the environment and its relationship to the local people.³²⁴ While the assessors often gather information from participants to form recommendations, the decision-makers are not obliged to yield to them through the outcome.³²⁵

Indigenous communities adversely affected by a proposed project often are subject to

³¹⁹ Fluker & Srivastava, *supra* note 248.

³²⁰ Holder, *supra* note 38 at 36.

³²¹ Fluker & Srivastava, *supra* note 248.

³²² Dietz & Stern, *supra* note 275; Robert Gibson, Meinhard Doelle & John Sinclair, "Fulfilling the Promise: Basic Components of Next Generation Environmental Assessment" (2016) 29 *Journal of Environmental Law and Practice* 251.

³²³ Aguilar-Støen & Hirsch, "Environmental Impact Assessments, local power and self-determination", *supra* note 47.

³²⁴ Damian Collins & Robin Kearns, "Place attachment and community activism at the coast: The case of Ngunguru, Northland" (2013) 69:1 *N Z Geog* 39–51.

³²⁵ Chen, *supra* note 35.

specific legal treatment in terms of public participation. Some nation-states require consultation with Indigenous communities as a way to integrate Indigenous groups' concerns into the process. And some international documents and transnational organizations require Free, Prior, and Informed Consent (FPIC) from affected Indigenous communities for the approval of specific projects. The following two subsections focus on consultation and FPIC, discussing their relevance and challenges in environmental decision-making that affects Indigenous peoples.

3.4. Consultation with Indigenous Peoples

In many countries, the assessment and decision-making about development projects include a specific requirement for consultation with Indigenous peoples affected. This specific treatment has its foundation in their historical rights to land, their unique relationship with the land, and their role in socio-ecological systems.³²⁶ Due to this unique relationship with the environment, authors suggest that Indigenous peoples are subject to specific vulnerabilities and sensitivities regarding spiritual, cultural, and physical ties to the land.³²⁷ For these reasons, environmental impacts threaten, in a distinct way, Indigenous peoples' collective ways of life, disturbing activities such as fisheries, hunting, food gathering, ceremonies, and acts of governance.³²⁸ Therefore, consulting with Indigenous communities adversely affected by proposed development projects is a generally accepted element of EIA.

Each jurisdiction dictates how consultation is carried out. Some countries require consultation only when Indigenous reserves are possibly affected. In other jurisdictions, such as in Canada, the standards are not so restrictive in the sense that Indigenous communities must be consulted with when there is possible infringement of traditional people's lands or rights, including their ways of being and living with the land. In Canada, the Crown has the duty to consult and accommodate Aboriginal rights and interests,³²⁹ even the ones pending recognition and settlement.³³⁰ When the state infringes Indigenous rights, it must justify its infringements.³³¹ In some jurisdictions, such as Canada, a duty to consult may have EIA as part of this duty, but not all consultation is in the nature of EIA.³³²

In general, states can delegate to a third party the responsibility for consultation.³³³ These

³²⁶ Heinämäki, "Right to Be a Part of Nature", *supra* note 232 at 416.

³²⁷ Holifield, "Environmental Justice as Recognition and Participation in Risk Assessment", *supra* note 90; Collins & Kearns, "Place attachment and community activism at the coast", *supra* note 324.

³²⁸ *Ibid.*

³²⁹ *Haida Nation v British Columbia (Minister of Forests)* 2004 SCC 73, [2004] 3 SCR 511.

³³⁰ Janna Promislow, "Irreconcilable: The Duty to Consult and Administrative Decision Makers" (2013) 22 Const F 63–79.

³³¹ *Ibid.* at 72.

³³² Neil Craik, "Process and Reconciliation: Integrating the Duty to Consult with Environmental Assessment" (2015) 53 Osgoode Hall L J 632–680.

³³³ *Ibid.*

third parties may be either experts hired by the developer or an expert review panel appointed by the government. The level of consultation, or the depth of information that the consultants seek, also varies depending on each country's specific rules and the degree of threat the project represents and the damages that cannot be compensated for in the future.³³⁴ The higher the risk of infringing Indigenous rights, the more rigorous are procedures for consultation. In any event, consultation must give real opportunities to influence and shape decision-making about specific projects, requiring more than sharing information.³³⁵ Consultation has a deliberative aspect because Indigenous peoples must have a real chance to expose their views and challenge the project. And consultation also has a justificatory aspect, for the state has an obligation to make explicit its reasons for infringing Indigenous peoples' rights and to justify these infringements based on normative criteria.³³⁶

Challenges with consultation involve difficulties in addressing cumulative effects of development in general, including past infringements of rights.³³⁷ It does not take into account historical and systemic environmental impacts on Indigenous people. Nursey-Bray et al.'s case study indicates that traditional communities want to go beyond consultation parameters and discuss socio-economic conditions and social dysfunctions that affect communities' behaviour.³³⁸ Udofia et al. suggest that Indigenous peoples participating in EIA tend to shift the focus from the particular issues delimited through the screening and scoping procedures to bigger-picture discussions, including matters of historical land claims and treaties.³³⁹ In general, courts have confirmed the limits of EIA in addressing the claims for cumulative effects analysis.³⁴⁰

Authors also indicated that Indigenous peoples often find consultation inadequate in terms of time. It happens too late in the process and follows overly constrictive a timeline. Additionally, the parameters for the assessment are too narrow.³⁴¹ These are critiques directed explicitly to consultation procedures, to EIA in general, and its constraints in addressing inequity. Consequently, international law and domestic regimes have been discussing the parameters and requirements for implementing FPIC as a tool to ensure Indigenous communities' power in decision-making about projects that affect their territories. However, there is no agreement on what FPIC actually requires from governments and corporations developing infrastructure projects.

³³⁴ *Ibid.*

³³⁵ *Tsleil-Waututh Nation v Canada (Attorney General)* 2018 FCA 153, [2019] 2 FCR 3 at para 564.

³³⁶ Craik, "Process and Reconciliation", *supra* note 332.

³³⁷ Promislow, "Irreconcilable", *supra* note 330.

³³⁸ Nursey-Bray, Marsh & Ross, "Exploring Discourses in Environmental Decision Making", *supra* note 261.

³³⁹ Udofia, Noble & Poelzer, "Meaningful and efficient?", *supra* note 91.

³⁴⁰ See e.g. *Prophet River First Nation v. British Columbia (Environment)*, 2017 BCCA 58, *supra* note 202.

³⁴¹ Nosek, *supra* note 82.

3.5. Free, Prior, and Informed Consent

The right to FPIC is most prominently embedded in international documents such as the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP) and the Inter-American System of Human Rights' provisions. The UNDRIP describes, among other things, Indigenous peoples' right to decide about projects and activities that affect their lives, stating the need for FPIC under several different circumstances. In particular, states must obtain Indigenous people's consent "prior to the approval of any project affecting their lands or territories and other resources, particularly in connection with the development, utilization or exploitation of mineral, water or other resources."³⁴² More broadly, and beyond individual projects, UNDRIP also affirms Indigenous peoples' right to determine and develop priorities and strategies for developing or using their lands or territories and other resources.³⁴³ The right to decide about specific projects is contextualized within Indigenous peoples' priorities and strategies for development in their traditional territories.

The Inter-American System of Human Rights, formed by the Inter-American Commission and the Inter-American Court of Human Rights, has recognised the collective rights of Indigenous peoples to land and natural resources, as well as the right to FPIC where large-scale development projects impact their survival as Indigenous peoples.³⁴⁴ The Inter-American Court has been gradually developing a definition of FPIC by rendering decisions through its landmark cases on issues related to the right to consultation. These are mainly the cases of *Saramaka v. Suriname* and the *Kichwa people of Sarayaku v. Ecuador*.³⁴⁵ In these decisions, consultation triggers the state's obligation to seek Indigenous peoples' consent. And more recent cases reinforce the standards for FPIC established in the *Saramaka* and *Kichwa* cases.³⁴⁶

In the transnational sphere, a World Bank policy, for instance, established that borrower institutions seeking to comply with the standards of FPIC must build and expand on the process of meaningful consultation, through good faith negotiation between the borrower and affected Indigenous peoples.³⁴⁷ The policy carries a weak meaning of 'consent', though, by stating that the term 'refers to the collective support of affected Indigenous

³⁴² UNDRIP, *supra* note 111 at art 32(2).

³⁴³ *Ibid.* at art 32(1).

³⁴⁴ Judgement, *Saramaka People v Suriname* (2007), Inter-Am Ct HR (Ser C) No 172; Judgement, *Kichwa People of Sarayaku v Ecuador* (2012), Inter-Am Ct HR (Ser C) No 245 at 40, 41.

³⁴⁵ Tara Ward, "The Right to Free, Prior, and Informed Consent: Indigenous Peoples' Participation Rights within International Law" (2011) 10:2 Nw U J Int'l Hum Rts 54–84.

³⁴⁶ C Ignacio de Casas, "The Corporate Responsibility to Respect Consultation Rights in the Americas: How the Inter-American System Can Better Promote Free, Prior, and Informed Consent" in Isabel Feichtner, Markus Krajewski & Ricarda Roesch, eds, *Human Rights in the Extractive Industries: Transparency, Participation, Resistance* Interdisciplinary Studies in Human Rights (New York: Springer International Publishing, 2019) 247; Judgement, *Comunidad Grifuna de Punta Piedra y Sus Miembros v Honduras* (2015), Inter-Am Ct HR (Ser C) No 304; Judgement, *Kaliña and Lokono Peoples v Suriname* (2015), Inter-Am Ct HR (Ser C) No 309.

³⁴⁷ *Environmental and Social Standards (ESS)*, by World Bank (World Bank, 2017) at art. 25.

Peoples.’ Indigenous peoples organisations have criticized the term ‘collective support’ for not being sufficiently rigorous and for not ‘ensuring respect for the results of affected indigenous peoples’ independent and collective decision-making processes.³⁴⁸ The World Bank framework does not refer to the UNDRIP, which leads to FPIC requirements being detached from the established international standards and creating a risk that borrowers will apply their own lower national law standards instead of the applicable international human rights law standards.³⁴⁹

Provisions by the Inter-American System and transnational institutions such as the World Bank form the procedural approach that domestic regimes, corporations and transnational legal instruments generally adopt in regards to consultation with and consent by Indigenous peoples in the Americas. Unlike UNDRIP, these provisions do not explicitly acknowledge Indigenous peoples’ right to determine and develop priorities and strategies for developing or using their lands and resources.³⁵⁰ On the contrary, this thin version of FPIC leads to ensuring a particular development outcome, which does not contribute to Indigenous peoples’ self-determination. Despite advances in transnational and international standards for FPIC, their requirements’ focus on process, proponent-driven and transnational models of FPIC often approach FPIC as a panacea to solve the historical power imbalances between Indigenous people, industry, and the state. Nevertheless, those requirements ignore the complexities and nuances of Indigenous peoples’ governance systems.³⁵¹ The principle of FPIC is often problematic for colonial states because of its implications for state sovereignty and control over resource development. Some state actors are resistant to implementing FPIC requirements, arguing that it may represent a potential Indigenous veto, therefore, a threat to development projects that serve the national interest.³⁵²

Given the widely different approaches to FPIC by international and transnational institutions, there has been some discussion in the literature about what FPIC requirements would represent in practice for state environmental decision-making processes. Some scholars argue that FPIC is a nuanced process of establishing a relationship between the state and Indigenous nations and communities. A process that includes exchanging information, conducting joint analysis, and fully integrating Indigenous communities into the decision-making process.³⁵³ This type of approach would represent a deeper level of consultation with the objective of consent, where both parties have equal power to

³⁴⁸ Corinne Lewis & Carl Söderbergh, “The World Bank’s new Environmental and Social Framework: some progress but many gaps regarding the rights of indigenous peoples” (2019) 23:1–2 *The International Journal of Human Rights* 63–86 at 74.

³⁴⁹ Lewis & Söderbergh, “The World Bank’s new Environmental and Social Framework”, *supra* note 348. at 67.

³⁵⁰ UNDRIP, *supra* note 111 at art 32(1).

³⁵¹ Tomlinson, “Indigenous rights and extractive resource projects”, *supra* note 4.

³⁵² Melissa Marschke, David Szablowski & Peter Vandergeest, “Engaging Indigeneity in Development Policy” (2008) 26:4 *Development Policy Review* 483–500 at 495, 496.

³⁵³ *Who’s afraid of the big, bad FPIC? The evolving integration of the United Nations Declaration on the Rights of Indigenous Peoples into Canadian law and policy*, by Lorraine Land (Northern Public Affairs, 2016) at 43.

influence the decision.³⁵⁴ Other scholars, however, argue that FPIC differs from consultation, as it aims to protect Indigenous people's right to self-determination over traditional territories; therefore, FPIC should be based on Indigenous-informed perspectives and protocols.³⁵⁵ Indigenous communities often disagree with international and domestic regimes' standards for compliance with Indigenous rights and demand more than mere consultation and compensation in project-by-project decision-making processes.³⁵⁶ Indigenous communities and individuals, such as those interviewed in this research, view their authority over land, ecological health and human rights as intertwined. FPIC is, thus, part of Indigenous governance systems and legal traditions that support Indigenous self-government.³⁵⁷

With Indigenous nations demanding a direct governance role in their traditional territories, state decision-making has not adequately integrated international and domestic instruments on consent. Thus, those instruments have proven ineffective in addressing the environmental justice concerns of affected communities.³⁵⁸ However, we are yet to see whether more recent domestic legal provisions, such as the British Columbia *Declaration*

³⁵⁴ S J Rombouts, "The Evolution of Indigenous Peoples' Consultation Rights under the ILO and U.N. Regimes" (2017) 53:2 *Stan J Int'l L* 169–224 at 201, 202.

³⁵⁵ Nosek, *supra* note 82; Viviane Weitzner, "Nosotros Somos Estado': contested legalities in decision-making about extractives affecting ancestral territories in Colombia" 38:5 *Third World Quarterly* 1198–1214; Tami Okamoto & Cathal Doyle, "The Wampis Nation's FPIC Protocol – A Statute Based Tool to Defend an Integral Territory" in Cathal Doyle, Biviany Rojas Garzon, Helen Tugendhat, Viviane Weitzner, *Free prior informed consent protocols as instruments of autonomy: laying foundations for rights based engagement* (Köln: Infoe, ENIP, 2019) 65.

³⁵⁶ In Colombia, for instance, Indigenous and traditional black communities created *Resguardo Indígenas* (indigenous guardians) to regulate their ancestral mining and to defend their territory from outside interests, as well as the *Consejos Comunitarios* (Communitarian councils) to adopt their own FPIC protocols, outlining requirements that uphold self-determination in the face of mining proposals. Viviane Weitzner, "Nosotros Somos Estado': contested legalities in decision-making about extractives affecting ancestral territories in Colombia" 38:5 *Third World Quarterly* 1198–1214. at 1203. In Bolivia, the Guaraní people have been reshaping their participation in decision-making about gas extraction seeking to influence law reform regarding consultation and FPIC, and negotiating agreements with the state. Almut Schilling-Vacaflor, "Who controls the territory and the resources? Free, prior and informed consent (FPIC) as a contested human rights practice in Bolivia" (2017) 38:5 *Third World Quarterly* 1058–1074. In Canada, Indigenous hereditary chiefs, elected council members, and guardians of lands and waters have been opposing pipeline projects, affirming their jurisdiction over unceded territories and the need for their consent for the state to grant approval to those projects. Kathryn H Garvie, Lana Lowe and Karena Shaw, 'Shale Gas Development in Fort Nelson First Nation Territory: Potential Regional Impacts of the LNG Boom' (2014) 184 *BC Studies* 45. In Brazil, indigenous peoples are enacting their community-based consultation and consent protocols establishing how project proponents and the state must engage with communities in the decision-making for a development proposal. Carlos Frederico Marés de Souza Filho et al, *Protocolos de Consulta Prévia e Direito à Livre Determinação*, Verena Glass, ed (São Paulo: Fundação Rosa Luxemburgo: DEPEDIS, 2019).

³⁵⁷ Cathal M Doyle, "Indigenous Peoples' experiences of resistance, participation, and autonomy: Consultation and free, prior and informed consent in Peru" in Claire Wright & Alexandra Tomaselli, eds, *The Prior Consultation of Indigenous Peoples in Latin America* (London: Routledge, 2019) 58–74; Layla Hughes, "Relationships with Arctic indigenous peoples: To what extent has prior informed consent become a norm?" (2018) 27 *Wiley Reciel* 15–27.

³⁵⁸ Sara L Seck, "Transnational Corporations and Extractive Industries" in Shawkat Alam and others (eds), *International Environmental Law and the Global South* (Cambridge University Press 2015) 381 at 398.

on the *Rights of Indigenous Peoples Act* (DRIPA), are able to address Indigenous peoples' claims of self-determination in concrete cases of environmental decision-making.³⁵⁹

This section briefly outlined some of the main aspects of consultation as one mechanism of participation of Indigenous peoples in EIA. Not all EIA law and policy systems require consultation. But the regimes that do so often face challenges related to the scope of consultation, such as a lack of consideration for cumulative effects of past developments, and to the level of engagement that Indigenous communities may have in consultation procedures. Authors discuss the need for a more rigorous standard of consultation, depending on the level of risks to Indigenous peoples' lands and ways of life, or/ and the requirement of FPIC as a way to affirm Indigenous people's right to self-determination over their traditional territories. In the next section, I address some of the critiques against environmental decision-making and EIA, especially since they relate to the law's limited role in project review.

4. Critiques to Environmental Decision-making and EIA

The main critiques in the literature against environmental decision-making and EIA refer to the high levels of discretion by decision-makers and laws' inability to limit discretion, contributing to decision-making taking a political character. Decision-makers' high discretionary power affects transparency and accountability of the review process.³⁶⁰ Laws are insufficient to set boundaries to discretion in guiding knowledge construction and incorporation into the review; addressing scoping procedures and significant adverse effects determination;³⁶¹ and providing for meaningful public engagement.³⁶² Regarding knowledge selection, laws and policies do not address issues related to the sources, complexity, and expertise of information, and do not lead to the integration of traditional knowledge. In terms of public participation, the law usually provides little on how participation must occur and how it should inform decisions.

Considering these critiques, some authors argue that environmental decision-making does not necessarily lead to better results concerning socio-ecological protection.³⁶³ The utilitarian approach usually taken by government agencies towards development proposals

³⁵⁹ *Declaration on the Rights of Indigenous Peoples Act*, SBC 2019, c 44. [DRIPA] The legislation affirms the application of the United Nations Declaration on the Rights of Indigenous Peoples to the laws of British Columbia. The province has enacted other laws, including the *Environmental Assessment Act*, SBC 2018, c 51, to ensure that provincial laws and policies are consistent with DRIPA. The new environmental assessment act will be discussed in detail in chapter six of the dissertation.

³⁶⁰ Saygili, *supra* note 304.

³⁶¹ Kruger, "The Canadian Environmental Assessment Act and Global Climate Change", *supra* note 292; Saygili, *supra* note 304.

³⁶² Dietz & Stern, *supra* note 275 at 132; O'Faircheallaigh, *supra* note 264 at 22, 23.

³⁶³ Bruce R Muir, "Closing the regulatory gap: revisions to the conventional practice of ex-post plans for EIAs to protect the valued components of Aboriginal peoples in Canada" (2018) 36:2 *Impact Assessment and Project Appraisal* 186–203; Eve Bratman & Cristiane Bená Dias, "Development blind spots and environmental impact assessment: Tensions between policy, law and practice in Brazil's Xingu river basin" (2018) 70 *Environmental Impact Assessment Review* 1–10.

encourages a cost-benefit analysis of nature, natural resources, and peoples.³⁶⁴ As a result, authors point to the political and biased character of environmental decision-making, which reinforces that the power of control over the decision is in the developers' and governments' hands.³⁶⁵ Environmental impact assessment processes do not provide capable techniques to address the asymmetrical powers that play out in the decision-making.³⁶⁶

Consequently, through EIA, environmental decision-making does not deal with disparate adverse effects on marginalized groups. For Ryan Holifield, state protocols of assessment only translate, modify, and recompose asymmetries and inequalities because they do not take into account the economic, cultural, and spiritual vulnerabilities of affected individuals.³⁶⁷ The literature shows that relations between Indigenous groups and the proponents are not symmetrical, for there are more systemic and invisibilized barriers to addressing disparate impacts on marginalized groups.³⁶⁸ Aguilar-Støen and Hirsch argue that EIA frequently serves as a space to legitimize processes of exclusions.³⁶⁹

Certain aspects of EIA may prevent the process from tackling issues of disparate impacts. The criteria used to define what to include in the decision-making often marginalize local people's values, perceptions, and concerns.³⁷⁰ For example, EIA frequently lacks normative standards to determine what significant adverse effects mean in each project's assessment. The definition of significance is crucial for establishing how a review should be carried out and determining the scope of the impacts and issues that assessors will evaluate. Defining 'significant adverse effects' is subject to too much discretion by the government agency, with little public involvement.³⁷¹ The assessment's scoping stage has few criteria and no citizen engagement to define what issues to address during the review.

Further, although EIA offers opportunities for public participation, greater public control is not necessarily happening.³⁷² Because of EIA's restricted focus on procedure rather than

³⁶⁴ Siciliano & Urban, "Equity-based Natural Resource Allocation for Infrastructure Development", *supra* note 238; Aguilar-Støen & Hirsch, "Environmental Impact Assessments, local power and self-determination", *supra* note 47; Duarte-Abadía, Boelens & Roa-Avendaño, *supra* note 21.

³⁶⁵ Booth & Skelton, *supra* note 47; Atkins, "Disputing the 'National Interest'", *supra* note 11.

³⁶⁶ Cashmore & Axelsson, "The mediation of environmental assessment's influence", *supra* note 84.

³⁶⁷ Holifield, "Environmental Justice as Recognition and Participation in Risk Assessment", *supra* note 90. at 592.

³⁶⁸ Moore, von der Porten & Castleden, "Consultation is not consent", *supra* note 87.

³⁶⁹ Aguilar-Støen & Hirsch, "Environmental Impact Assessments, local power and self-determination", *supra* note 47.

³⁷⁰ Nicholas Philip Simpson & Claudia Basta, "Sufficiently capable for effective participation in environmental impact assessment?" (2018) 70 Environmental Impact Assessment Review 57-70.

³⁷¹ Chen, *supra* note 35; Kruger, "The Canadian Environmental Assessment Act and Global Climate Change", *supra* note 292; Bullen, *supra* note 262; *Pembina Institute for Appropriate Development v Canada (Attorney General)*, 2008 FC 302, .

³⁷² O'Faircheallaigh, *supra* note 264 at 25.

values or substantive outcomes,³⁷³ participation takes place as a checkbox, not fully integrating marginalized communities' concerns.³⁷⁴ In practice, some authors say that the criteria for defining adverse affected individuals and groups are often too restrictive, which inhibits broad public involvement.³⁷⁵ Additionally, citizen engagement does not occur early enough in the process and in meaningful ways.³⁷⁶ Scholars argue that participation needs to include more substantively community and traditional knowledge into the process, challenging the supremacy of scientific and technical solutions.³⁷⁷ Finally, the lack of funding is also a significant obstacle for the public engagement of disparately adversely affected communities.³⁷⁸

Concerning consultation with Indigenous peoples, a recurring critique is that it does not deliver reconciliation of peoples' rights and ways of life with settler state legal system, as it does not take into consideration issues of land claims and existing socioeconomic disparities.³⁷⁹ Further, consultation in EIA does not accurately assess the Indigenous communities' vulnerability and sensitivities, mainly related to their close ties to the land.³⁸⁰ Some scholarship offers a critique of the requirement for consultation based on the territories of recognised land claims. This requirement often disregards issues related to areas not formally acknowledged or in ongoing state-involved recognition processes,³⁸¹ and significant territorial overlaps for many Indigenous communities.

Overall, authors critique the levels of power held by the decision-maker. As a result, EIA represents, in practice, little constraint on the impacts of a project, as the decision-makers may approve a development even when the assessment reveals significant environmental impacts, with the argument that adverse effects are justified under the circumstances.³⁸² In practice, EIA does not require substantive changes to the projects as a result of the

³⁷³ Richardson, "Environmental assessment and planning theory", *supra* note 222 at 347.

³⁷⁴ O'Faircheallaigh, *supra* note 264.

³⁷⁵ Fluker & Srivastava, *supra* note 248.

³⁷⁶ Simpson & Basta, *supra* note 370; Meinhard Doelle & A John Sinclair, "Time for a new approach to public participation in EA: Promoting cooperation and consensus for sustainability" (2006) 26:2 Environmental Impact Assessment Review 185–205.

³⁷⁷ Aguilar-Støen & Hirsch, "Environmental Impact Assessments, local power and self-determination", *supra* note 47.

³⁷⁸ Mihaly, "Citizen Participation in the Making of Environmental Decisions", *supra* note 271 at 223.

³⁷⁹ Nosek, *supra* note 82; Moore, von der Porten & Castleden, "Consultation is not consent", *supra* note 87; Nursey-Bray, Marsh & Ross, "Exploring Discourses in Environmental Decision Making", *supra* note 261.

³⁸⁰ See, e.g., Graham S Whitelaw, Daniel D McCarthy & Leonard J S Tsuji, "The Victor Diamond Mine environmental assessment process: a critical First Nation perspective" (2009) 27:3 Impact Assessment and Project Appraisal 205–215; Jimena Sierra-Camargo, "La Importancia De Decolonizar La Enseñanza Del Derecho Internacional De Los Derechos Humanos: El Caso De La Consulta Previa En Colombia (The Importance of Decolonizing International Human Rights Law: The Prior Consultation in Colombia Case)" (2017) 39 Revista Derecho del Estado 137–186 at 172–179.

³⁸¹ Jaichand & Sampaio, "Dam and Be Damned", *supra* note 66.

³⁸² Craik, "Process and Reconciliation", *supra* note 332 at 667, 668.

assessment.³⁸³ Environmental impact assessment also lacks administrative review options through which new information and concerns from the public might lead to a reconsideration of EIA report and decision-making.³⁸⁴ Challenges to decisions often take place in courts. This is relevant when considering that further judicial review is usually problematic, as costs and criteria for filing judicial actions and the parameters to challenge projects' approval in courts are often too restrictive.³⁸⁵ Therefore, administrative procedures lack broader and more substantive opportunities for review.

The Environmental Justice (EJ) literature builds on these critiques against environmental decision-making, through case studies, and suggests ways by which the law could guide assessments and decision-making to pursue equitable treatment of Indigenous communities in project review processes and outcomes. In the next part of the chapter, I lay out the EJ literature development and discuss case studies on the application of EJ to environmental and natural resources decision-making to summarize principles by which to assess the effectiveness of EIA in addressing Indigenous people's concerns.

5. Environmental Justice

As an analytical framework, Environmental Justice considers inequity experienced by people who are disparately and adversely affected by the quality of the environment and by issues of access to natural resources, partially because of systemic discrimination based on factors such as race, class, or gender.³⁸⁶ EJ's three basic components agreed upon in the academic literature are: challenging the unfair distribution of environmental harms and resources; aiming at procedural justice, including meaningful participation in environmental decision-making; and pointing to the recognition of marginalized groups who are most affected by decision-making.³⁸⁷

The EJ literature deals specifically with the notion of environmental equity as one step towards environmental justice. Environmental equity is not based on the equal distribution of environmental harms and access to resources but on recognising the existence of different paths that lead to environmental impacts on communities. In other words, different avenues and factors lead to adverse environmental effects on people, depending on their culture, ways of being, ways of relating to the land and their dependence on natural resources. Equitable treatment requires that different solutions address the factors leading to impacts through various legal and policy treatments, both in procedural and substantive ways. Therefore, equitable treatment is about using specific actions and procedures to

³⁸³ Chen, *supra* note 35.

³⁸⁴ Dietz & Stern, *supra* note 275; Chen, *supra* note 35; Green, *supra* note 306. Challenges in court are usually expensive and time-consuming, representing obstacles to public engagement. Some jurisdictions provide administrative tribunals that allow broader access to justice regarding environmental decision-making. See for instance the British Columbia Appeal Board, online: BC Environmental Appeal Board (website) <<http://www.eab.gov.bc.ca/fileAppeal/index.htm>>

³⁸⁵ Chen, *supra* note 35; Bullen, *supra* note 262.

³⁸⁶ Schlosberg, *supra* note 51; Bell, *supra* note 51.

³⁸⁷ Walker, "Beyond Distribution and Proximity", *supra* note 86; Schlosberg, *supra* note 51.

balance the powers between the people who propose and conduct development and those affected by it.³⁸⁸ In environmental litigation, for instance, plaintiffs have claimed the limitations of state laws to render environmental justice to affected people. They decided to argue for bold or creative interpretations of environmental laws or the novel application of other sources of law, such as constitutional provisions.³⁸⁹

This section of the chapter reveals EJ's potential to serve as an analytical framework, pointing to its relevance in addressing environmental decision-making of large natural resource projects. First, I outline the rise and development of EJ literature, the main areas of conflict to which it has been applied, and the main ideas shaped throughout this process. Further, I identify the main critiques of EJ in application to environmental decision-making and outline the counterarguments to these critiques, as provided by the EJ literature. I also analyse case studies of environmental decision-making, in which the EJ framework has been applied, and summarize, from the literature, principles by which to evaluate EIA. There is no agreement in the literature about these principles, and they vary depending on the place and context in which EJ is being articulated. However, they reflect the essential elements of EJ in environmental decision-making and can provide a critical evaluative framework. Finally, I conclude by suggesting that EJ can provide an analytical framework to evaluate EIA and decision about the approval of large hydropower projects, and in particular, the concerns of Indigenous peoples affected, by

5.1. The development of an environmental justice literature

5.1.1. Environmental justice in the United States

The early U.S. literature on EJ focused primarily on the problem of the unfair distribution of pollution and less on the social, economic, and political circumstances that caused pollution or generated power imbalances between local communities, government decision-makers, and corporations. The civil rights movements of the 1960s served as inspiration for the further development of EJ in the 1980s. Civil rights movements helped identify how certain social and racial groups were being unequally affected by pollution. These groups started to be recognised as historical victims of discrimination, who usually lacked the political power to fight the environmental implications of marginalization in their daily lives.³⁹⁰

Some episodes of the civil rights movements encouraged further awareness of the racial implications of environmental issues and further development of EJ movements. In 1968, for instance, sanitation workers in Memphis, Tennessee, mostly African-American,

³⁸⁸ Ewall, *supra* note 113.

³⁸⁹ Jeff Todd, "A 'Sense of Equity' in Environmental Justice Litigation" (2020) 44:1 Harv Envtl L Rev 169–234. At 174, 175. This is seen, for instance, in climate litigation initiated by youth to demand government action and policies to fight climate change.

³⁹⁰ Robert D Bullard et al, "Toxic Wastes and Race at Twenty: why race still matters after all of these years" *Environmental Law* (2008) 371; Carl A Zimring, *Clean and white: a history of environmental racism in the United States* (New York: New York University Press, 2015).

organized a strike for equal pay and better work conditions.³⁹¹ By the end of the 1970s, one of the first cases considered by the literature as ‘environmental injustice’ took place in North Carolina, involving a long and contentious decision-making process for implementing a PCB (polychlorinated biphenyl) landfill in the Warren County community. In 1982, the state decided to dispose of 32,000 cubic yards of contaminated soil in an area with a high percentage of African-American residents.³⁹² The United Church of Christ’s Commission for Racial Justice voiced its strong opposition to the decision. Many protest demonstrations took place in Warren County, along with litigation against the state.³⁹³ Due to lawsuits and protests, which pointed to the uncertainty of the state’s scientific arguments, the proponent redesigned the landfill project but did not completely avoid it.³⁹⁴ The decontamination of the area used for the landfill took place years later, between 2001 and 2003, but residents still question the completeness of the cleanup.³⁹⁵

In a similar case, in Tennessee, the Dickson County Landfill significantly affected the Eno Road Community, formed by a majority of African American residents. From 1988 to 1999, the facility received many notifications of violations of environmental and health standards. The city quickly negotiated and settled compensation for lawsuits alleging contamination when white families filed those lawsuits, but not with African-American families.³⁹⁶ Since those episodes, abundant empirical evidence emanating from social justice movement activities and the academic literature demonstrates the disproportionate impacts of hazardous activities on marginalized communities in the U.S.³⁹⁷ For example, a 1987 United Church Report, based on data from the U.S. Census, demonstrated the relationship between racial characteristics of the population - such as African-descendants, Native Americans, and Latinos – and the location of hazardous waste facilities.³⁹⁸ This was the first study to present clear evidence of racial discrimination in environmental decision-making.³⁹⁹

³⁹¹ Zimring, *supra* note 390.

³⁹² Robert D Bullard & Beverly Wright, “Disastrous response to natural and man-made disasters: an environmental justice analysis twenty-five years after Warren County” *UCLA Journal of Environmental Law & Policy* (2008) 217. at 223.

³⁹³ *Ibid.*

³⁹⁴ Eileen Maura McGurty, *Transforming environmentalism: Warren county, PCBs, and the origins of environmental justice* (New Brunswick, NJ ; London: Rutgers University Press, 2007). at 63, 64.

³⁹⁵ Bullard & Wright, *supra* note 392 at 221.

³⁹⁶ *Ibid.* at 236.

³⁹⁷ Even though the Canadian EJ literature, in general, has different focus than the urban pollution issues seen in numerous American cases, the work of Mascarenhas, “Where the Waters Divide”, *supra* note 147; Wiebe, *supra* note 146 outline the remarkable problems related to pollution and water contamination in communities in Canada.

³⁹⁸ *Toxic Waste and Race in the United States. A National Report on the Racial and Socio-Economic Characteristics of Communities with Hazardous Waste Sites*, by Commission for Racial Justice (New York, NY: United Church of Christ., 1987).

³⁹⁹ The amount of research examining racial and socioeconomic disparities around environmentally hazardous sites in the U.S. has increased substantially over the last three decades, demonstrating how different cultural and racialized groups perceive environmental risk. A national survey conducted in

In 1991, the First National People of Color Environmental Leadership Summit (Summit I) enriched EJ's existing approaches. From this point onward, the movement expanded beyond pollution issues to public health, workers' safety, land use, transportation, housing, resource allocation, and community empowerment.⁴⁰⁰ In this way, EJ significantly changed the paradigm of mainstream environmentalism. It transformed how environmentalists frame the environment and social justice implications, and the process of environmental decision-making, thereby broadening academic analyses of environmentalism to include social justice concerns.⁴⁰¹

As a consequence, EJ also led to changes in public policies and legislation. The 1994 Executive Order 12898, issued by the U.S. President in 1994, "directs federal agencies to identify and address the disproportionately high and adverse human health or environmental effects of their actions on minority and low-income populations" and "directs each agency to develop a strategy for implementing environmental justice."⁴⁰² The Executive Order aimed to address EJ within existing laws and legislation, reinforce legislation such as the Civil Rights Act, and call the federal government to improve methodologies for assessing and mitigating impacts.⁴⁰³

Since the issuing of Executive Order 12898 in 1994, the EJ movement has changed significantly to include other movements' claims and perspectives, expanding the scope of EJ in academic scholarship. According to Daniel Faber, the contemporary EJ movement represents a convergence of seven social movements: (1) The civil rights movement, focused on issues of environmental racism; (2) the occupational health and safety, focused on labour rights; (3) the indigenous land; (4) the environmental health, focused on antitoxic manifestations; (5) community-based movements for social and economic justice; (6) human rights, peace, and solidarity movements; (7) and immigrants' rights movements.⁴⁰⁴

The literature from the U.S. suggests three key features of EJ scholarship. First, it indicates EJ's growth as an alternative to mainstream environmentalism, leading to a 'pluralisation of environmentalism,' approaching the environment not only as of the 'external' pristine

1994, by James Flynn, Paul Slovic, and C.K. Mertz, found out that among over 1,500 people, the perception of risk differed according to gender and races. The findings suggest that policies on risk assessment are based on accounts about security and risk that women and people of color do not share. Robert R.W. Verchick, "Feminist Theory and Environmental Justice" in Rachel Stein, ed, *New perspectives on environmental justice: gender, sexuality, and activism* (New Brunswick, NJ: Rutgers University Press, 2004).

⁴⁰⁰ Commission for Racial Justice, *supra* note 398 at 18.

⁴⁰¹ Taylor, *supra* note 102.

⁴⁰² *United States Executive Order 12898 Federal Actions To Address Environmental Justice in Minority Populations and Low-Income Populations*, *supra* note 259.

⁴⁰³ Bullard & Wright, *supra* note 392 at 219.

⁴⁰⁴ Daniel Faber, *Capitalizing on environmental injustice: the polluter-industrial complex in the age of globalization*, Nature's meaning (Lanham: Rowman & Littlefield Publishers, 2008) at 6.

nature but also as communities.⁴⁰⁵ The literature in the past ten years acknowledges ‘natural areas’ as socio-ecological systems.⁴⁰⁶ Thus, the concept of EJ carries a far-reaching notion of ‘environment’ as communities intertwined with nature and natural resources. Taylor accurately states that “environmental problems are social problems; they are socially constructed claims defined through collective processes.”⁴⁰⁷ A broad notion of environmentalism necessarily includes affected communities’ rights and wellbeing.

The U.S. EJ literature also offers a critique of environmental decision-making driven by market dynamics. Faber’s analysis points out that environmental injustices are generated by incentives to businesses to benefit from the least political resistance path. The less political power a community has, the more likely it is for corporations to accomplish economic success in the areas they explore. These communities represent a more ‘profitable’ alternative for the location of hazardous activities.⁴⁰⁸ A more recent analysis of the relationship between places where marginalized people live and where hazardous facilities are located indicates that disparities in environmental impact allocation still exist and are even more significant than previous studies have shown.⁴⁰⁹

United States EJ scholars also helped identify racial discrimination as one of the main factors that lead to a lack of political power and resources to challenge decision-making, causing certain demographic groups to carry an unequal burden of pollution.⁴¹⁰ Bullard et al. focus on the issue of race as the most prominent factor for marginalization, which leads to the disproportional siting of hazardous facilities.⁴¹¹

Further, the articulation of EJ in the U.S. suggests the need to incorporate EJ principles into all decision-making levels. The constraints surrounding the EPA’s ability to implement Executive Order 12898 emphasize this need. Current hindrances for the EPA’s implementation of the Executive Order include a lack of means to embrace meaningful participation in decision-making,⁴¹² combined with a lack of proper screening tools to measure disproportionate impacts and identify environmental justice communities. Methodological issues, divergent interpretations of policy, and issues regarding the application of screening tools have deterred the EPA’s work. There is a need to legally define ‘disproportionate impacts’ and ‘affected communities’ on a national scale and

⁴⁰⁵ David Schlosberg, *Environmental Justice and the New Pluralism: The Challenge of Difference for Environmentalism* (Oxford: Oxford University Press, 1999) at 15.

⁴⁰⁶ Nancy J Turner, Douglas Deur & Dana Lepofsky, “Plant management systems of British Columbia’s first peoples” (2013) 179 BC Studies 107.

⁴⁰⁷ Taylor, *supra* note 102 at 509.

⁴⁰⁸ Daniel J Faber, ed, *The Struggle for ecological democracy: environmental justice movements in the United States*, Democracy and ecology (New York: Guilford Press, 1998) at 2-4.

⁴⁰⁹ Robert D Bullard et al, “Toxic Wastes and Race at Twenty: why race still matters after all of these years” *Environmental Law* (2008) 371 at 385-392.

⁴¹⁰ Commission for Racial Justice, *supra* note 398.

⁴¹¹ Bullard et al, *supra* note 390. The more recent US literature on environmental racism has also been analyzing precisely the impacts of infrastructure and projects on indigenous peoples.

⁴¹² Bell, *supra* note 51 at 68-72.

include participation from local civil society organizations.⁴¹³

Another challenge to EPA implementation of the Executive Order is providing a legal and policy framework. Authors argue that regulatory development integrating EJ would better implement Executive Order 12898 because it creates a duty for decision-makers to evaluate and consider the impacts of the EPA's actions on minorities, low-income, and Indigenous populations.⁴¹⁴ Therefore, effectively implementing the Order requires the EPA to establish methodologies and policy procedures to better define disproportionate impacts on EJ communities and create clear guidance for decision-makers to apply EJ principles. It is essential to develop an inductive and participatory approach consulting with academic experts, local agencies, grassroots environmental justice networks, activists, and advocates.⁴¹⁵ Policies also need to ensure equitable access to critical environmental information for environmental justice communities.⁴¹⁶

The literature also challenges the centrality of scientific knowledge in framing and contesting environmental injustices. On the one hand, socio-spatial data and empirical knowledge are necessary to demonstrate inequalities in the allocation of environmental risks and unveil distributional components of EJ cases. On the other hand, it is important to question the objectivity of scientific knowledge in environmental assessment, allowing it to be tested by different types of knowledge. In the case of Warren County, for instance, residents challenged the arguments offered by the state to choose a site for a landfill facility, arguing that the state's motives were solely political and economic interests.

Finally, authors suggest that the rise of an EJ discussion in the U.S. resulted in the advancement of public participation in environmental decision-making, as well as the creation of an analytical structure to examine environmental injustices and to inform environmental regulations and policies.⁴¹⁷

5.1.2. Environmental justice around the world

Although the U.S. EJ movement inspired the growth of an international literature seeking to apply similar methodologies and principles to other contexts,⁴¹⁸ the principles of EJ had

⁴¹³ Ryan Holifield, "Environmental Reviews and Case Studies: Accounting for Diversity in Environmental Justice Screening Tools: Toward Multiple Indices of Disproportionate Impact" (2014) 16:1 *Environmental Practice* 77–86.

⁴¹⁴ O'Neill, *supra* note 90; Onyemaechi C Nweke, "A Framework for Integrating Environmental Justice in Regulatory Analysis" (2011) 8:6 *International Journal of Environmental Research and Public Health* 2366.

⁴¹⁵ Holifield, *supra* note 413 at 84.

⁴¹⁶ David W Case, "The Role of Information in Environmental Justice American Bar Association Section of Environment, Energy, and Resources Symposium" (2011) 81:4 *Miss LJ* 701–746.

⁴¹⁷ Glen S Johnson, "Environmental Justice: A Brief History and Overview" in Filomina Chioma Steady, ed, *Environmental Justice in the New Millennium Global Perspectives on Race Ethnicity and Human Rights* (New York, NY: Palgrave Macmillan US, 2009) 17.

⁴¹⁸ Carruthers et al, *supra* note 134; J Agyeman, "Constructing Environmental (in)Justice: Transatlantic Tales" (2002) 11:3 *Environmental Politics* 31–53.

already existed in different locations, cultures, and times. Those principles were present in various circumstances of environmental issues, concurrently or before the branding of EJ in the U.S.⁴¹⁹

Indigenous rights and ways of being, for instance, are at the heart of the EJ literature in many parts of the world. Indigenous peoples are some of the first and most significantly affected by environmental decision-making, often experiencing the harms of ecological degradation before other social groups.⁴²⁰ This is so because Indigenous cultural identity, laws, and governance systems often rely on the land.⁴²¹ Therefore, Indigenous views about their relationship with nature are crucial to understanding rights and responsibilities to the environment.⁴²² For Catherine O'Neil, EJ for Indigenous people involves a 'constellation of issues' different than it does for other affected groups, particularly the interconnectivity of cultural, spiritual, social, ecological, economic, and political aspects of environmental issues. It also encompasses recognising their unique legal and political status and their right to manage their lands and resources.⁴²³

In Canada, as in other colonized contexts, recognition of Indigenous ways of life and rights has been one aspect of EJ.⁴²⁴ The perception of Indigenous people as savages was decisive to the colonial process and persists until today, which is used to justify the unequal distribution of development's adverse effects.⁴²⁵ Randolph Haluza-DeLay et al. indicate there have been EJ movements in Canada just as there have been struggles over the ownership and use of land and resources throughout Canadian history. Indigenous peoples have been challenging exploitative approaches to nature for a long time. Still, the marginalization of their causes has made their ways of knowing mostly invisible in mainstream literature.⁴²⁶ In New Zealand, Damian Collins and Robin Kearns explain how Indigenous communities have employed local political resistance to major development projects in the country, such as the project proposed on Ngunguru Sandpit. Maori citizens framed issues of property rights and national interest through EJ, demonstrating a high

⁴¹⁹ Agyeman et al, *supra* note 54.

⁴²⁰ Wiebe, *supra* note 146.

⁴²¹ Westra, *supra* note 53 at 134.

⁴²² Catherine Iorns Magallanes, "Native American Values and Laws of Exclusion" in Keith H Hirokawa, ed, *Environmental Law and Contrasting Ideas of Nature A Constructivist Approach* (New York, NY: Cambridge University Press, 2014) 200.

⁴²³ O'Neill, *supra* note 90; Turner et al, "From Invisibility to Transparency", *supra* note 49. These scholarships argue that adverse effects on Indigenous peoples treated as invisible due to the complexity in their relationship with the land and natural resources.

⁴²⁴ Although Canadian EJ literature has a strong focus on the effects of development on indigenous peoples, the work of Gibson-Wood & Wakefield, "'Participation', White Privilege and Environmental Justice", *supra* note 141 indicates how Hispanics also suffer from marginalization in environmental decision-making in a major city of Canada. The authors argue for the value of recognition and environmental racialization.

⁴²⁵ Agyeman et al, *supra* note 54 at 36.

⁴²⁶ *Ibid.* at 2-4.

level of community participation and protest against the project.⁴²⁷

In Eastern Europe, traditional communities are subject to racial discrimination in environmental decision-making processes and environmental regulation. Krista Harper et al. demonstrate how the empirical assessment of environmental inequality in Hungary and Slovakia is hampered by a lack of sufficient data about Roma groups, leading to environmental legislation that does not consider Roma's needs and interests.⁴²⁸ These communities do not have access to meaningful participation in environmental decision-making, and environmental laws and regulations do not reflect their needs and claims.⁴²⁹

In Latin American countries, EJ matters concentrate significantly around fair distribution, such as access to land and natural resources.⁴³⁰ For example, during the Bolivian "water war" in 2000, the population of Cochabamba opposed attempts to privatize water in the region, thus, demonstrating the central role of access to natural resources in EJ discussions. Similarly, in 2003 demonstrations in many cities in Bolivia opposed neoliberal reforms regarding gas management. In general, EJ in Bolivia challenged the framing of natural resources as commodities, with access mediated by the market.⁴³¹ Regarding access to land, the Landless Workers' Movement and other movements for land reform in Brazil occupy unproductive areas strategically to force expropriation.⁴³² This approach aims at reducing poverty and promoting economic security for farmers, and ultimately fostering distributive

⁴²⁷ Collins & Kearns, "Place attachment and community activism at the coast", *supra* note 324 at 46-48.

⁴²⁸ Krista Harper, Tamara Steger & Richard Filčák, "Environmental justice and Roma communities in Central and Eastern Europe" (2009) 19:4 *Environmental Policy and Governance* 251-268. at 252.

⁴²⁹ *Ibid.*

⁴³⁰ Even though concerns with distribution have been prominent in Latin America, the interaction between issues of distribution, recognition, and participation are somehow intertwined. See, e.g., the work of Selene Herculano, "Building Environmental Justice in Brazil: A Preliminary Discussion of Environmental Racism" in Jan Marie Fritz, ed, *International Clinical Sociology* (New York, NY: Springer, 2009) 224; Abers, Oliveira & Pereira, *supra* note 245. The latter study addresses the overlapping inequalities between social groups, within the state and between regional centres and periphery, and the influence of this power asymmetries on decision-making regarding development projects implementation in the Amazon.

⁴³¹ Tom Perreault, "Popular Protest and Unpopular Policies: State Restructuring, Resource Conflict, and Social Justice in Bolivia" in David V Carruthers, ed, *Environmental Justice in Latin America: Problems, Promise, and Practice* (Cambridge, US: MIT Press, 2008) 239. at 242. The author explains "protests over water and gas, then, are not only struggles over how best to manage those resources. They are, more broadly, contests over the right to participate both in the management of resources, and in the benefits arriving from them."

⁴³² Such expropriation is allowed by the Brazilian legislation under certain conditions, notably when the land does not fulfill its constitutional "social function." *The Brazilian Constitution*, art. 184, establishes: "It is within the power of the Union to expropriate on account of social interest, for purposes of agrarian reform, the rural property which is not performing its social function, against prior and fair compensation in agrarian debt bonds with a clause providing for maintenance of the real value, redeemable within a period of up to twenty years computed as from the second year of issue, and the use of which shall be defined in the law."

justice.⁴³³ Latin American authors have also discussed EJ concerning issues of poverty and access to essential services. Selene Herculano suggests that social inequalities in Brazil obscure other problems from environmental degradation, arguing that “disregard for common spaces is intertwined with disregard for people and communities.”⁴³⁴ Environmental justice, therefore, requires addressing issues of social justice, such as urbanization, access to land in the rural environment, sanitation, and public health.

Besides distributional concerns, issues regarding the recognition of marginalized groups and their effective participation in environmental decision-making also have a strong influence on Latin American literature. Leire Urkidi and Mariana Walter’s analysis of case studies in Chile and Argentina, for instance, demonstrates that local communities affected by mining are primarily concerned about sufficient participation in the decision-making process to approve new projects, as well as for recognition of Indigenous communities.⁴³⁵ The anti-mining movement, described in the case study, further indicated concerns with disproportionate socio-environmental impacts to the region compared to the benefits generated to the project proponent.⁴³⁶ In Argentina, the residents carried out alternative assessments of one mining proposal, pointing to inconsistencies and errors in the government-conducted study. Based on these assessments, local lawyers issued injunctions requesting a temporary suspension of the project, and a state-conducted plebiscite finally halted the mining project’s activities.⁴³⁷

Beyond the local and national scale examples of EJ worldwide, social movements activities and scholars are taking a more global and systemic approach to the problem of the impacts of environmental degradation on local communities, such as issues related to climate change.⁴³⁸ For example, Julian Agyeman’s case study shows that the U.K. and Ghana frame EJ differently, distant from the U.S. civil rights framework and closer to a globalizing conception. Transformations are happening at the level of discourse and spatial allocation of environmental problems, revealing the rise of a global understanding of EJ.⁴³⁹ Alastair Iles, for instance, argues for broadening the notion of injustice beyond urban and local

⁴³³ James Boyce, Peter Rosset & Elizabeth A Stanton, “Land Reform and Sustainable Development” in James K Boyce, Sunita Narain & Elizabeth A Stanton, eds, *Reclaiming Nature: Environmental Justice and Ecological Restoration* (London, UK: Anthem Press, 2007) 127 at 132.

⁴³⁴ Selene Herculano, “O Clamor por Justiça Ambiental e Contra o Racismo Ambiental” (2008) 3:1 *Revista de Gestão Integrada em Saúde do Trabalhador e Meio Ambiente* 1–20 at 5.

⁴³⁵ Urkidi & Walter, *supra* note 228.

⁴³⁶ *Ibid.* at 690.

⁴³⁷ *Ibid.* at 691.

⁴³⁸ See, e.g., Rebecca Tsosie, “Indigenous People and Environmental Justice: The Impact of Climate Change” (2007) 78 *University of Colorado Law Review* 1625–1678.

⁴³⁹ Julian Agyeman, “Global environmental justice or Le droit au monde?” (2014) 54 *Geoforum* 236–238; Gonzalez, “An Environmental Justice Critique of Comparative Advantage”, *supra* note 135. The latter article provides an analysis of agricultural products’ international trade policies and their impacts on Indigenous people in Mexico.

contexts by addressing the problem of uncontrolled electronic waste disposal in Asia.⁴⁴⁰ A mining case study by Keenan et al. illustrates the importance of empirical research on EJ policies by demonstrating that many mineral-rich countries are among the poorest in the world and by discussing the distributional relationship between poverty and income inequality to mineral dependence from transnational corporations.⁴⁴¹ This type of inequity refers to scattered relationships between actors located in different countries. The industries responsible for the socio-ecological harms are far from where those harms occur.⁴⁴²

Joan Martinez-Alier indicates that EJ outside of the U.S. has used different frames to characterize a myriad of movements in the Third World that struggle against environmental impacts threatening poor people. The USA's EJ movement and the more diffuse environmentalism of the poor worldwide can be understood as one single current.⁴⁴³ Outlining the development of EJ literature worldwide helps to identify some of its main implications for the concept of equity used in this dissertation. The analyses of EJ's contextual elements in places such as Canada, New Zealand, Eastern Europe, and Latin America share some similarities. First, scholars reveal the influence of racism and discrimination in the way participation in decision-making takes place, as well as in the way legislators design environmental laws. At different levels, the laws in various regions suggest a disconnection with the reality of how traditional and Indigenous people's ways of life, including their relationships to the land, are affected by development projects.

Further, the analyses indicate substantial issues related to participation in decision-making regarding development projects. Communities have few opportunities to engage and have little influence on the outcomes of decision-making that affects them. This scenario often leads to resistance by local citizens who search for ways to challenge development projects outside of participation opportunities offered by the state. Canadian case studies demonstrate that Indigenous peoples' resistance strategies against unsustainable resource extraction on Indigenous territories have led to changes in state environmental policies.⁴⁴⁴ Protests are usually used as resistance tools to these projects, but other mechanisms, such as alternative assessments, provide technical arguments for contestation.

From a global perspective, EJ considers the need to address problems underlying regional

⁴⁴⁰ Alastair T Iles, "Mapping Environmental Justice in Technology Flows: Computer Waste Impacts in Asia" (2004) 4:4 *Global Environmental Politics* 76–107.

⁴⁴¹ Karyn Keenan, José De Echave & Ken Traynor, "Mining Rights and Community Rights: Poverty Amidst Wealth" in James Boyce, Sunita Narain & Elizabeth A Stanton, eds, *Reclaiming Nature Environmental Justice and Ecological Restoration* (London UK: Anthem Press, 2007) 181.

⁴⁴² Joan Martinez-Alier et al, "Is there a global environmental justice movement?" (2016) 43:3 *The Journal of Peasant Studies* 731–755. offer a broad analysis of the causes of distribution conflicts around the world due to economic factors such as growing flows of energy and materials. The authors indicate that a global concept of EJ embodies more specific concepts and movements, such as poor and the indigenous, biopiracy, 'tree plantations are not forests,' the ecological debt, climate justice, food sovereignty, land grabbing and water justice.

⁴⁴³ Martinez-Alier, *supra* note 160.

⁴⁴⁴ Casey, *supra* note 67.

development politics while also acknowledging global industrial production patterns.⁴⁴⁵ Vulnerable groups worldwide bear disproportional shares of environmental burdens and fewer opportunities to shape environmental decision-making, lacking recognition and power in decisions that impact their lives.⁴⁴⁶ At the international level, the EJ framework represents an important analytical tool for international bodies and transnational movements, particularly for exposing environmental inequities between the global north and south and demanding changes in corporate and government policies regarding transnational issues.⁴⁴⁷

This section briefly laid out the development of an EJ literature, pointing to its most fundamental aspects: distribution of environmental harm, procedural justice, and recognition of marginalized groups affected. In the next section, I outline the most prominent critiques in the literature against applying an EJ analytical framework to environmental and natural resources decision-making. I respond to these critiques through counterarguments found in the academic literature.

5.2. Critiques of environmental justice in the environmental decision-making literature

Throughout the growth of the EJ literature, scholars have critiqued the ability of an EJ framework to improve environmental decision-making. One of these critiques refers to the origins of EJ as a practice of political and social movements. Based on a partial understanding of EJ, some argue that this framework is inevitably biased and linked to specific groups' interests, which would not likely benefit the overall environmental decision-making process. There is resistance to looking at EJ as an analytical framework capable of objectively addressing equality in public policies.⁴⁴⁸ This resistance stems from the political nature of EJ movements. Accordingly, some scholars and state agents understand that a fair decision-making process should only follow technocratic and scientific standards. Therefore, concerns and inputs from laypeople and locals would necessarily be seen as second-class opinions.

In response to this critique, Julie Sze et al. developed a case study analysis describing the discourses that discredit EJ in policy-making processes. These discourses are based on the allegation that EJ does not provide an objective analytical framework. The authors show how decision-makers marginalized EJ as an analytical dimension within a particular policy framework and considered EJ a 'special interest,' under the argument that it is a political

⁴⁴⁵ Iles, "Mapping Environmental Justice in Technology Flows", *supra* note 440.

⁴⁴⁶ Carmin & Agyeman, *supra* note 228.

⁴⁴⁷ Barbara Hicks, "Going Beyond the State to Strengthen the Rule of Law: Local Activists, Transnational Networks, and Gold Mining in Bulgaria" in Carmen Joann & Julian Agyeman, eds, *Environmental Inequalities Beyond Borders Local Perspectives on Global Injustices* (Cambridge, US: MIT Press, 2011) 213.

⁴⁴⁸ See Bell, *supra* note 51 at for a description of the divergence between social movements and policy makers and academics' notions of the concept "environmental justice".

movement and not a credible basis to inform decision-making.⁴⁴⁹ As a result, in regulatory processes, local communities' inputs were considered solely for impact mitigation, but not in the actual process of decision-making.⁴⁵⁰

Nevertheless, some scholars argue that an EJ framework does provide regulators and decision-makers with lenses through which to consider the impacts suffered by marginalized people and how these impacts relate to less relative power in decision-making.⁴⁵¹ This framework can point to the tools needed to better expose and weigh the consequences of the decision. Ryan Holifield's case study analysis of Indigenous people's participation in a risk assessment process demonstrates how an EJ analytical framework can contribute to better decision-making. Environmental justice helped expose how protocols of risk assessment, in fact, reinforce asymmetries and inequalities.⁴⁵² In EIA, applying an EJ framework leads to the distributional analysis of inequalities to make normative politics more explicit in decision-making and contribute to assessing the vulnerability and specific inquiries and sensitivities of local communities.⁴⁵³

The second critique against an EJ analytical framework is that it does not apply to specific environmental decision-making processes where there has not been substantial empirical evidence of the existence of environmental injustice. Scholars have developed empirical evidence through socio-spatial analyses, using tools such as Geographic Information System (GIS) to draw statistical maps of communities affected by environmental decision-making. William Bowen argues that empirical description is indeed crucial to frame problems as it reveals the "systematic pattern with a discernable causal structure" so that decision-makers can commit to solving them.⁴⁵⁴ Through this approach, empirical academic studies conventionally verify environmental injustices only if shown that women, racialized, and poor residents, for example, form the majority in the affected communities.⁴⁵⁵ Studies with a more qualitative approach would, therefore, lack quantitative and distributional justification for the application of EJ.

This critique stems from the prominence given to distributional aspects in the first waves of the EJ literature. However, Gordon Walker argues, "simple geographies and spatial forms evident in much 'first generation' environmental justice research are proving

⁴⁴⁹ Sze et al, "Defining and Contesting Environmental Justice", *supra* note 156 at 810.

⁴⁵⁰ *Ibid.* at 821.

⁴⁵¹ Hilda E Kurtz, "Scale frames and counter-scale frames: constructing the problem of environmental injustice" (2003) 22:8 Political Geography 887-916. The author lays out three scales where EJ acts: designing regulation; conducting political debates; shaping academic and bureaucratic projects. Environmental justice is not restricted to a political movement.

⁴⁵² Holifield, "Environmental Justice as Recognition and Participation in Risk Assessment", *supra* note 90.

⁴⁵³ Walker, "Environmental justice, impact assessment and the politics of knowledge", *supra* note 5.

⁴⁵⁴ Bowen, *supra* note 142 at 30, 31.

⁴⁵⁵ This approach is present in the first studies on EJ distributional issues, such as the United Church Report, and Bullard. More recent are the works of Paul Mohai & Robin Saha, "Which came first, people or pollution? Assessing the disparate siting and post-siting demographic change hypotheses of environmental injustice" (2015) 10:11 Environ Res Lett 115008.

insufficient.”⁴⁵⁶ Spatial and distributional research tools show limitations that may obscure nuanced real-life relations between environmental issues and human wellbeing and potentially hide other forms of inequality.⁴⁵⁷ For this reason, distribution needs to intersect with other aspects of EJ (recognition and procedural justice). By broadening the focus, EJ as an analytical framework can address inequality issues in a more complex qualitative way. Such an approach would look at each community affected, emphasizing how historical constructions of racialization, poverty, inequality, and social exclusion influence environmental decision-making.

Widely recognized discrimination processes, such as those involving Indigenous peoples in contexts of colonization, obviously do not demand proof by distributional empirical research because they are systematically discussed and demonstrated in the literature.⁴⁵⁸ John Borrows, for instance, notes that Canada has “not only done a poor job in reflecting Indigenous peoples within its constitutional order, it has greatly harmed their social, economic, and spiritual relations and practices throughout most of its history.”⁴⁵⁹ There is still, however, room to examine the influence of environmental inequity and racism within the process of decision-making, not necessarily with a distributional focus. As Gordon Walker states, within EJ communities, “[i]t is also necessary to understand how the body, the household and wider social context are also implicated in the social patterning of impacts on health and wellbeing.”⁴⁶⁰ Considering that EJ, as a framework, seeks to inhibit environmental injustices before they occur, analysing the distribution of environmental harms that are already consolidated and mapped is insufficient. Research can investigate more deeply how EJ could lead to better and more meaningful recognition of marginalized groups and how they are considered in the decision-making processes.⁴⁶¹

The third critique against EJ applied to environmental decision-making refers to using an anti-racism framework to address inequity towards Indigenous people. Some scholars argue that anti-racism does not speak to the core of Indigenous peoples’ claims, particularly regarding land as a contested space, and does not promote decolonization.⁴⁶² Bonita Lawrence and Enakshi Dua, for instance, defend a different framework than EJ, centred on the concept of decolonization to encompass issues of sovereignty and self-determination and to acknowledge ongoing colonization processes.⁴⁶³ Considering this kind of critique, many EJ scholars have been pushing the boundaries of the EJ framework to respond to specific inquiries of Indigenous claims.⁴⁶⁴ Recent Indigenous EJ embodies greater

⁴⁵⁶ Walker, “Beyond Distribution and Proximity”, *supra* note 86 at 614.

⁴⁵⁷ *Ibid.* at 619.

⁴⁵⁸ Schlosberg & Carruthers, *supra* note 50.

⁴⁵⁹ Borrows, *supra* note 59 at 107.

⁴⁶⁰ Walker, “Beyond Distribution and Proximity”, *supra* note 86 at 619.

⁴⁶¹ *Ibid.*

⁴⁶² Lawrence & Dua, *supra* note 174.

⁴⁶³ *Ibid.*

⁴⁶⁴ Jarratt-Snider & Nielsen, *supra* note 168.

complexity regarding relationships with the land and socio-ecological systems. For this reason, the EJ framework is going through reconstruction by integrating environmental, race, and sovereignty issues with greater cultural and historical depth.⁴⁶⁵ A more comprehensive concept of EJ is being developed to integrate cultural, spiritual, social, ecological, economic, and political aspects of environmental issues, with a specific emphasis on Indigenous people's unique legal and political status.⁴⁶⁶ Eric Yamamoto and Jen-L Lyman argue that "racializing EJ provides concepts and language to help scholars, activists, lawyers, and community leaders assess how each group is differently situated and why cultural and socio-economic needs cannot be met by a 'one size fits all' EJ remedy."⁴⁶⁷ For example, some of the case studies analysed in the next section illustrate how activists and scholars have been successfully reframing EJ to address specific issues that affect Indigenous people.⁴⁶⁸

Therefore, a review of the literature reveals three main critiques against EJ as an analytical framework relevant to environmental decision-making. First, authors distinguish an EJ analytical framework and an EJ political framework. It is true that EJ, as a political framework, came earlier and carried demands for some particular and specific interests. However, an EJ analytical framework shows a much narrower and objective approach – its application in environmental decision-making has proven relevant, as the case studies analysed in the next section will demonstrate. Second, the more recent literature indicates that qualitative research can be carried out based on existing empirical research and well-established discussions about recognised marginalized racial groups, particularly Indigenous peoples. Responses to this critique indicate the need to advance analyses focused on recognition and procedural aspects that lead to socio-ecological harms. Third, a more nuanced and renewed EJ framework has proved to be able to tackle issues at the core of Indigenous peoples' claims, such as land and sovereignty and cultural, spiritual, and political specificities. In the next section, I will draw from case studies on the practical application of EJ to environmental decision-making to build a set of principles by which to assess equity in EIA.

5.3. Environmental justice for Indigenous peoples in natural resources decision-making

As indicated in chapter two, various analytical frameworks examine the adverse effects of industry on Indigenous peoples and lands, including Indigenous resurgence and sovereignty frameworks. This dissertation takes the approach that the protection of Indigenous rights and ways of life in natural resource projects is strengthened by applying

⁴⁶⁵ David H Getches & David N Pellow, "Beyond 'Traditional' Environmental Justice" in *Justice and Natural Resource Concepts, Strategies, and Applications* (Washington: Island Press, 2002) 3.

⁴⁶⁶ O'Neill, *supra* note 90 at 26.

⁴⁶⁷ Yamamoto & Lyman, *supra* note 136.

⁴⁶⁸ Although EJ has advanced in regards to Indigenous peoples' claims, it remains distinct from a framework based on the notion of Indigenous Sovereignty. See, e.g., Coulthard, *supra* note 162; Turner, *supra* note 162. Nevertheless, there are aspects of the Indigenous EJ literature that intersect with the Indigenous Sovereignty framework, such as acknowledgement of Indigenous self-governance.

different frameworks and lenses, including environmental law, human rights, environmental rights, and environmental justice.⁴⁶⁹ This section aims to contribute to a structured framework for addressing EJ for Indigenous peoples in EIA and decision-making. A growing body of literature on incorporating EJ into all levels of decision-making shows the need for a well-defined analytical framework to shape administrative and normative standards that rule environmental and natural resources decisions.⁴⁷⁰ Scholars have pointed to the possibility of an EJ framework to acknowledge the influence of colonization in the relationship between Indigenous communities and the lands they occupy,⁴⁷¹ as well as Indigenous peoples' sovereignty over those traditional territories.⁴⁷² For many Indigenous peoples, the adverse effects of industry affect communities' food sources, social and cultural capital, and traditional ways of life; thus, environmental justice requires protecting Indigenous peoples' connection with the land and waters.⁴⁷³ Therefore, these elements permeate all the principles constructed in this chapter for the analysis and comparison of the Canadian and Brazilian case studies. However, it is essential to highlight that because Indigenous communities worldwide have diverse cultures, laws, and traditions, EJ may adopt different features depending on community-based relationships with the land, natural resources, human and non-human beings.⁴⁷⁴

Throughout the EJ literature development, authors proposed and generally agreed on three broad and central aspects of an EJ framework: Distribution of environmental harms and resources; procedural justice, including participation in environmental decision-making; and recognition of marginalized groups affected. These three aspects are intertwined and may overlap depending on the case study. They serve as categories by which I analyse specific case studies based on the application of EJ to environmental decision-making and, further, in which I place the types of principles for EIA evaluation.

First, concerning the distribution of environmental harms and resources, the development of socio-spatial research and criteria for cumulative impact assessment of development on the exercise of Indigenous rights are essential aspects of EJ to inform public policies for

⁴⁶⁹ Sumudu Atapattu, "Extractive Industries and Inequality: Intersections of Environmental Law, Human Rights, and Environmental Justice" (2018) 50:2 *Ariz St LJ* 431–454 at 448.

⁴⁷⁰ Connelly & Richardson, "Value-driven SEA", *supra* note 289; Sze et al, "Defining and Contesting Environmental Justice", *supra* note 156; Karen Bickerstaff & Julian Agyeman, "Assembling Justice Spaces: The Scalar Politics of Environmental Justice in North-east England" (2009) 41:4 *Antipode* 781–806; Robert D Bullard & Glenn S Johnson, "Environmentalism and Public Policy: Environmental Justice: Grassroots Activism and Its Impact on Public Policy Decision Making" (2000) 56:3 *Journal of Social Issues* 555–578.

⁴⁷¹ Whyte, *supra* note 64; Julia Miller Cantzler & Megan Huynh, "Native American Environmental Justice as Decolonization" (2016) 60:2 *American Behavioral Scientist* 203–223.

⁴⁷² Deborah McGregor, "Mino-Mnaamodzawin: Achieving Indigenous Environmental Justice in Canada" (2018) 9:1 *Environment and Society* 7–24; Sarah Krakoff, "Tribal Sovereignty and Environmental Justice" in Kathryn M. Mutz, Gary C. Bryner, Douglas S. Kenney, *Justice and Natural Resources Concepts, Strategies, and Applications* (Washington: Island Press, 2002) 161.

⁴⁷³ Sarah Morales, "Digging for Rights: How Can International Human Rights Law Better Protect Indigenous Women from Extractive Industries" (2019) 31:1 *Can J Women & L* 58–90 at 69.

⁴⁷⁴ Schlosberg & Carruthers, *supra* note 50 at 30.

environmental decision-making. Socio-spatial data can be used as a tool to better expose distributional environmental injustice by helping map the effects of environmental degradation on local people.⁴⁷⁵ Spatial consideration of the impacts speaks to the problem of what type of information decision-makers account for in the assessment process. Identifying the affected communities and their relationship to the land and local natural resources has important consequences for defining the significant adverse effects caused by a specific project and the scope of the assessment. Indigenous peoples may have a different understanding from the colonial governments and industries on the physical areas affected and how environmental decision-making impacts their relationship with the land.⁴⁷⁶ The application of Indigenous peoples' criteria to evaluate the impacts of industrial development on their traditional territories is crucial for seeking environmental justice. In particular, the analysis of the cumulative effects of past and present development projects on Indigenous traditional lands is a central element to assess how the exercise of Indigenous rights over their territories has been historically disturbed.⁴⁷⁷ Canadian scholars, for instance, have discussed how uncontrolled industrial development in Northeast British Columbia, without substantial consideration for cumulative impacts, has been harming the exercise of traditional practices and food access to Indigenous communities.⁴⁷⁸

Second, the case studies overlap aspects related to procedural justice and the recognition of knowledge and data produced by marginalized communities. Studies suggest that EJ principles can help establish methodologies and policy procedures to better define disparate impacts on marginalized communities and create clear guidance for decision-makers to apply EJ principles by consulting with academic experts, local agencies, grassroots environmental justice networks, activists, and advocates.⁴⁷⁹ Therefore, authors suggest that policy criteria for methodologies of data selection are critical for recognising and addressing issues of EJ in the decision-making.⁴⁸⁰ Scholars have indicated, for instance, that Indigenous traditional knowledge and western scientific knowledge can be applied in cooperation to create policies for better environmental stewardship.⁴⁸¹ Mary Kathryn Nagle's analysis of the U.S. Environmental Justice for Indigenous peoples indicate that environmental laws are not enough to ensure effective and just decision-making; there needs to be the inclusion of Indigenous laws, values, traditions, and narratives in a new

⁴⁷⁵ Walker, *supra* note 5 at 317.

⁴⁷⁶ Hillman, "Situated justice in environmental decision-making", *supra* note 226 at 702.

⁴⁷⁷ Booth, "Northern Environmental Justice", *supra* note 66.

⁴⁷⁸ Caleb Behn & Karen Bakker, "Rendering Technical, Rendering Sacred: The Politics of Hydroelectric Development on British Columbia's Saaghii Naachii/Peace River" (2019) 19:3 Global Environmental Politics 98–119.

⁴⁷⁹ Holifield, *supra* note 413 at 84.

⁴⁸⁰ Bruce R Muir & Annie L Booth, "An environmental justice analysis of caribou recovery planning, protection of an Indigenous culture, and coal mining development in northeast British Columbia, Canada" (2012) 14:4 Environ Dev Sustain 455–476.

⁴⁸¹ Deborah McGregor, "Lessons for Collaboration Involving Traditional Knowledge and Environmental Governance in Ontario, Canada" (2014) 10:4 AlterNative: An International Journal of Indigenous Peoples 340–353; Reo et al, *supra* note 171.

wave of environmentalism.⁴⁸² Participation of Indigenous communities' representatives in environmental decision-making may contribute to balance decision-making power and include communities' concerns and perspectives into the process.

However, there is a lack of a systematic and institutional framework to guide those processes and to equip decision-makers with clear and objective principles in their decisions. Scholars argue that guidance is decisive for analysts and decision-makers to evaluate and weigh the impacts of the environmental agency's actions on the Indigenous population.⁴⁸³ Thus, criteria to guide decision-making processes in terms of selecting and incorporating information and how to engage the public are ways to foster transparency and accountability by limiting the levels of discretion. Standards and requirements for decision-making from Indigenous traditional orders and governance systems are tools for better environmental outcomes and affirmation of Indigenous sovereignty.⁴⁸⁴ Policy criteria need to focus on recognising policies created by the affected Indigenous groups and equipping them, through special legal and policy treatment, with the tools to influence decision-making outcomes.

In Latin America, for instance, many Indigenous communities have been creating their protocols for free, prior, and informed consultation and consent. Those protocols define how the states should interact with the communities in environmental decision-making, including respect for Indigenous institutions, collective deliberation and traditions, Indigenous communities' timelines, and places for consultation and public participation meetings. States have been slowly and increasingly considering those protocols and Indigenous-led policies in their environmental decision-making processes.⁴⁸⁵ Those protocols often refer to the requirement for consultation in intrinsic connection with consent; they are operationalized together.⁴⁸⁶

In Canada, some Indigenous nations are articulating their Indigenous laws to affirm their right to self-determination in environmental decision-making. Indigenous peoples have been using strategies of formalizing traditional laws to seek influence over the state decision-making process.⁴⁸⁷ For the Indigenous scholar Sarah Morales, international human rights law can work to protect Indigenous women and girls from the harmful effects of development by providing a mechanism through which Indigenous laws and practices can be operationalized.⁴⁸⁸ Sara Seck defends a relational approach to legal analysis, based on Indigenous feminist legal scholarship, to acknowledge responsibilities of care for

⁴⁸² Nagle, *supra* note 148 at 668, 669.

⁴⁸³ Nweke, *supra* note 414 at 2381.

⁴⁸⁴ McGregor, "Mino-Mnaamodzawin", *supra* note 472 at 9.

⁴⁸⁵ Okamoto & Doyle, *supra* note 355; Marés de Souza Filho et al, *supra* note 356.

⁴⁸⁶ Marés de Souza Filho et al, *supra* note 356 at 70.

⁴⁸⁷ Dayna Nadine Scott & André Boisselle, "If There Can Only Be 'One Law', It Must Be Treaty Law. Learning From Kanawayandan D'aaki" (2019) 70 UNBLJ 230-281.

⁴⁸⁸ Morales, "Digging for Rights", *supra* note 473 at 69.

human and non-human beings.⁴⁸⁹ Based on this approach, the author argues for embedding gender-based analysis of adverse effects on Indigenous women and girls into the EIA of project proposals.⁴⁹⁰

In a recent study on environmental assessment, scholars point to the importance of strategic level assessments for policies, programs, and plans, not just specific physical projects.⁴⁹¹ Case study analyses on strategic environmental assessment (SEA) suggest that SEA could supplement EIA participatory processes by giving the public opportunity to influence a policy framework's conception prior to particular development projects.⁴⁹² The application of SEA can be one tool to increase Indigenous peoples' influence over policies, plans, and programs that will direct decision-making processes about individual development projects that affect Indigenous territories.

Still related to procedural justice, EJ scholars raised the need for legal mechanisms to ensure access to information by the public and accountability from government agencies and development proponents. Those mechanisms are fundamental to lead informed and meaningful participation. Marcos Orellana, for example, outlines the case of a two-stage hydro development project in Chile, which affected the Mapuche people.⁴⁹³ The author argues that although the damming of the Bío-Bío River represented negative effects on the Indigenous community's mental health, self-identity, and ceremonial practices, the state and hydro company failed to provide accurate information to Indigenous people to participate. In the second stage of the project, however, Chile had developed clearer EIA policies and regulations and Aboriginal laws, enabling the Mapuche to scrutinize the assessment and take the case to the Chilean courts. The Mapuche also submitted complaints to the Inter-American Commission on Human Rights, which forced the state to negotiate with the Indigenous groups. Thus, the government agreed to specific measures to strengthen Indigenous people's protection, improve legal processes for land demarcation with Indigenous people's participation, as well as environmental protection of the region and monitoring of the dam.⁴⁹⁴ Legal requirements that guarantee access to information and accountability limit decision-makers' discretionary power and provide the affected population with a framework to challenge decision-making procedures and outcomes.

⁴⁸⁹ Sara L Seck, "Relational Law and the Reimagining of Tools for Environmental and Climate Justice" (2019) 31:1 Can J Women & L 151-177 at 166, 176.

⁴⁹⁰ *Ibid.*

⁴⁹¹ Gibson, Doelle & Sinclair, *supra* note 322. According to Global Affairs Canada, "Strategic environmental assessment (SEA) is the systematic and comprehensive process of evaluating the environmental effects of a policy, plan, or program and its alternatives. The emphasis is on examining environmental effects, but most SEAs may also identify significant economic and social consequences. In short, its purpose is to promote integrated decision-making." Government of Canada, Global Affairs Canada, online: *Global Affairs Canada* (website) < <http://www.international.gc.ca/development-developpement/priorities-priorites/enviro/seapppp-eespppp.aspx?lang=eng> >

⁴⁹² Gibson et al, "Strengthening Strategic Environmental Assessment in Canada", *supra* note 308; Jackson & Illsley, *supra* note 222 at 616.

⁴⁹³ Orellana, "Indigenous Peoples, Energy and Environmental Justice", *supra* note 30.

⁴⁹⁴ *Ibid.* at 525, 526.

Third, regarding the recognition of Indigenous peoples, experiences worldwide show that there is not substantial recognition of their authority over traditional territories. Rebecca Tsosie highlights the importance of a rights-based approach to self-determination in EJ for Indigenous peoples.⁴⁹⁵ The recognition of the right to environmental self-determination would allow Indigenous peoples to maintain their unique cultural and political status as the original peoples of traditional lands. The enforcement of international human rights, such as the ones recognised by UNDRIP, would represent one way of pressuring states to formally recognise the right to self-determination.⁴⁹⁶ Moreover, recognition of Indigenous knowledge is still limited, as there is not enough guidance on how to consider traditional knowledge and Indigenous laws in environmental decision-making processes.⁴⁹⁷ A case study analysis of risk assessment practices in the U.S. Indigenous lands demonstrates that regulatory officials and scientists' actions remain relatively neglected in EJ scholarships. For this reason, there is a strong influence of “‘behind-the-scenes’ negotiations of science-in-the-making” on environmental decisions.⁴⁹⁸ Indigenous communities, in particular knowledge holders, engagement could contribute to oversee the assessment conducted by the state and to question the data from scientific and technical knowledge.⁴⁹⁹ Mick Hillman's study on river management exposed how the colonists of the Hunter Valley, South-eastern Australia, considered the land “healthy and worthy of settlement” but disregarded the management processes that the Indigenous peoples in the region had carried out for millennia. This process led to the dispossession and exclusion of Indigenous people and traditional knowledge, generating environmental degradation and environmental injustices to local communities.⁵⁰⁰ Addressing aspects of recognition of Indigenous ways of knowing in environmental and natural resources decision-making may contribute to the exercise of Indigenous decision-making authority in their traditional territories.

State-led EIA processes often use narrowly framed criteria of cost-benefit analysis based on the dominant society's values and decisional frameworks. As a result, those processes ignore the interrelated cultural, spiritual, social, economic, and political dimensions of environmental issues. Catherine O'Neil illustrated this by analysing risk assessment of fish consumption and basket weaving activities in Indigenous communities of the U.S.⁵⁰¹ The specific situations of risk exposure within these activities are closely related to culture, spirituality, and ecology. The author argues that dominant risk avoidance measures do not reflect the values and understanding of those who are most vulnerable to risks (Indigenous communities). Government “[a]gencies must consider risk avoidance in light of each affected group's circumstances and aspirations and decline to employ avoidance measures

⁴⁹⁵ Tsosie, *supra* note 438.

⁴⁹⁶ *Ibid.* at 1653.

⁴⁹⁷ McGregor, *supra* note 64.

⁴⁹⁸ Holifield, “Environmental Justice as Recognition and Participation in Risk Assessment”, *supra* note 90 at 596.

⁴⁹⁹ *Ibid.*

⁵⁰⁰ Hillman, “Situated justice in environmental decision-making”, *supra* note 226 at 698.

⁵⁰¹ O'Neill, *supra* note 90.

where doing so will imperil cultural self-determination for indigenous peoples.”⁵⁰² O’Neil also addressed issues of recognition and protection of treaty rights through U.S. courts and inconsistencies in the EPA’s policies about methylmercury in fish consumed by Indigenous communities. In the Ojibwe tradition, for example, Indigenous people are responsible for fishing and consuming fish as part of their traditional and ceremonial activities. But the agency’s regulations show misinterpretation of what it means to evaluate and respond to issues raised by these communities.⁵⁰³

Considering the relevance of Indigenous laws and traditions and traditional knowledge, achieving EJ requires an open and participatory process of knowledge and information selection to inform decision-making. Dayna Scott proposes a case study that illustrates communities’ residents’ participation in monitoring pollution sources in the Canadian tar sands region.⁵⁰⁴ In this case, expert evidence and legal proceedings recognised the validity of local knowledge based on experiences with pollution odours and health symptoms. Residents of Indigenous communities are fighting to participate in regulatory processes to ensure a safe environment. The author argues that regulating monitoring actions and pollution standards is not exclusively a task for experts, but for collective action.⁵⁰⁵ This does not mean that traditional and local knowledge is uncontested, but that it deserves consideration as one valid source of information. Therefore, civil society can enhance decision-making processes by reviewing and challenging mainstream information and bodies of knowledge.

Still in regards to procedural justice aspects of EJ, participants’ moral and ethical values are also critical in determining how EIA is carried out – for instance, in determining the significance of impacts, in defining the scoping, the filtering, and the methodology, and in identifying the impacts of development projects.⁵⁰⁶ To employ the necessary balance between technical information and local values, EJ requires public participation procedures that ensure ample and meaningful engagement. Urkidi and Walter’s case study analysis illustrates how participatory methods in mining projects’ assessment are insufficient or inadequate in terms of taking into account local views and concerns.⁵⁰⁷ Aguilar-Støen and Hirsch’s case study indicates that EIA usually focuses on procedural fairness alone, providing EIA with the appearance of a democratic, participatory process.⁵⁰⁸ The opportunities for citizen engagement, however, are actually too restrictive to integrate the perspectives of the people affected. Participation is not necessarily meaningful, as it does

⁵⁰² *Ibid.* at 57.

⁵⁰³ O’Neill, *supra* note 90 at 534.

⁵⁰⁴ Dayna Nadine Scott, “‘We Are the Monitors Now’: Experiential Knowledge, Transcorporeality and Environmental Justice” (2016) 25:3 *Social & Legal Studies* 261–287.

⁵⁰⁵ *Ibid.* at 274, 275.

⁵⁰⁶ Richardson, “Environmental assessment and planning theory”, *supra* note 222 at 150.

⁵⁰⁷ Urkidi & Walter, *supra* note 228 at 685.

⁵⁰⁸ Aguilar-Støen & Hirsch, “Environmental Impact Assessments, local power and self-determination”, *supra* note 47.

not consider in depth the participants' inputs in the decision-making.⁵⁰⁹ Case studies from the U.S. in the Indian Country provide examples of lack of meaningful participation opportunities of affected Indigenous communities in EIA processes, hindering Indigenous peoples' influence over the definition of significance of adverse effects, the adoption of alternatives to the proposed infrastructure projects, and the requirements for justification of the colonial state's decision to approve a project.⁵¹⁰ Conversely, an EJ framework encompasses policy and regulatory instruments to ensure a sufficient amount and quality of public participation opportunities. In the case of Indigenous peoples being affected by projects, considering Indigenous peoples' sovereignty and unique legal status as self-determining nations, meaningful participation requires much more than consultation procedures.

Consultation, as a particular mechanism of Indigenous participation, is based on the unique relationship Indigenous people have with the land, which confers them a special status in regards to environmental policies and decisions. However, consultation has not been able to depict the interrelated cultural, spiritual, social, economic, and political dimensions of environmental issues for Indigenous people.⁵¹¹ A problem raised in the literature is that consultation protocols usually do not consider historical impacts of previous development projects on the area Indigenous communities live, through cumulative impact assessments. Too restrictive parameters for consultation, in terms of the scope of the issues addressed and the timeframe for submissions, are not able to foster environmental justice for Indigenous people.⁵¹² Consultation is a too limited tool, unable to address Indigenous peoples' claims, especially in regards to sovereignty over traditional territories. Therefore, more substantial and more nuanced means of involvement are necessary. Indigenous people's engagement in environmental decision-making, from an EJ perspective, must go beyond consultation procedures, allowing communities to affect the direction of proposed developments substantially.

Third, regarding the recognition of Indigenous peoples as self-governing peoples, which is a central element of a more recent EJ wave, Leena Heinämäki offers a study about cooperative actions between nation-states and Indigenous peoples in the Arctic.⁵¹³ The author points out that since the 1980s Indigenous people have been creating strong organizations that have been taking part in policy dialogue and decision-making processes in natural resources development. Indigenous organizations participate in the Arctic Council, formed in 1996, negotiating with Arctic states as partners. Indigenous peoples have also been involved in national delegations for international negotiations on Arctic issues.⁵¹⁴

⁵⁰⁹ *Ibid.* at 276.

⁵¹⁰ Dean B Suagee, "NEPA in Indian Country. Compliance Requirement to Decision-Making Tool" in Kathryn M Mutz, Gary C Bryner & Douglas S Kenney, eds, *Justice and Natural Resources Concepts, Strategies, and Applications* (Washington: Island Press, 2002) 225.

⁵¹¹ O'Neill, *supra* note 90.

⁵¹² Nosek, *supra* note 82 at 116; Moore, von der Porten & Castleden, "Consultation is not consent", *supra* note 87 at 6, 7.

⁵¹³ Heinämäki, *supra* note 171.

⁵¹⁴ *Ibid.* at 238.

Other authors have analysed case studies of agreements between the Canadian colonial and Indigenous governments to protect, plan, and develop natural resources on Indigenous territories.⁵¹⁵ Those government-to-government agreements have led to more sustainable environmental decision-making and the affirmation of Indigenous governments' authority over traditional territories.⁵¹⁶

Grace Nosek analyses the issues that Indigenous communities identify in environmental decision-making due to the state's fails to recognise and protect Indigenous peoples' rights and traditional territories.⁵¹⁷ The author argues, however, that the resurgence of Indigenous law provides important advantages to Indigenous communities to engage with the state, based on their own legal traditions, in order to define their concept and requirements for FPIC to specific development projects on Indigenous territories.⁵¹⁸ Scholars point to the need for FPIC for any activities that might impact Indigenous territories as a more robust procedural mechanism than consultation for Indigenous communities' participation.⁵¹⁹ Further, there is a need to situate FPIC in broader contexts of Indigenous governance systems by fostering local initiatives to use natural resources through community-led energy developments to decentralize energy generation and distribution. Environmental justice requires alternatives that involve less risk and more community autonomy from large developers.⁵²⁰ In considering alternative projects in environmental decision-making, development proposals led by Indigenous communities, with respect for the values, concerns and interests of those communities, would contribute to more autonomous local development and economic growth on Indigenous territories.⁵²¹ Those authors propose partnerships in equal terms between state governments and Indigenous peoples and Indigenous peoples' autonomy in designing and implementing plans for natural resource developments in their territories. Government-to-government partnerships and agreements with the state and Indigenous-led development may represent some of the ways to ensure

⁵¹⁵ Donna Craig, "Recognising Indigenous Rights through Co-Management Regimes: Canadian and Australian Experiences" (2002) 6:6 NZ J Envtl L 199–254; Deborah Curran, "Legalizing the Great Bear Rainforest Agreements: Colonial Adaptations toward Reconciliation and Conservation Special Issue: Environment, Peoples, Power, and the Law: Reconceiving Relationships, (Re)building Bridges" (2016) 3 McGill LJ 813–860.

⁵¹⁶ Curran, "Legalizing the Great Bear Rainforest Agreements", *supra* note 515 at 240.

⁵¹⁷ Nosek, *supra* note 82.

⁵¹⁸ *Ibid.* at 153.

⁵¹⁹ Shalanda Baker, "Mexican energy reform, climate change, and energy justice in indigenous communities" (2016) 56:2 Natural Resources Journal 359–390; Leonardo A Crippa, "Cross-Cutting Issues in the Application of the Guatemalan NEPA: Environmental Impact Assessment and the Rights of Indigenous Peoples Academy on Human Rights and Humanitarian Law: Articles and Essays Analyzing International Human Rights Law and the Protection of the Environment" (2008) 24:1 Am U Int'l L Rev 103–140. The author points out that FPIC is a procedural guarantee for Indigenous peoples to decide on development proposals in their territories. Therefore, consent does not substitute for or diminish substantial rights, such as access to land and natural resources and self-determination.

⁵²⁰ Baker, *supra* note 519 at 700–703.

⁵²¹ Mia Montoya Hammersley, "The Water-Energy Nexus and Environmental Justice: The Missing Link Between Water Rights and Energy Production on Tribal Lands" in Karen Jarratt-Snyder & Marianne Nielsen, eds, *Indigenous Environmental Justice* (Tucson, Arizona: University of Arizona Press, 2020) 136.

Indigenous peoples' rights to self-determination in decision-making regarding traditional lands and natural resources.

In this section, I summarized different case studies in the EJ framework in application to environmental and natural resource decision-making. In terms of EJ's distributional aspect, the case studies indicate the need to employ methodologies and policies to accurately identify the adverse effects of environmental decision-making on Indigenous communities. There is also a need to identify, especially through cumulative impacts of development, the kinds of environmental inequities generated by individual projects' approvals. In terms of procedural justice, EJ requires states and project proponents to provide full access to information, enforce accountability mechanisms, and promote early, broad, and meaningful public participation. Regarding the recognition aspect of EJ, scholars argue for the importance of the right to self-determination and FPIC as particular ways to address environmental inequity in response to Indigenous peoples' specific cultural, spiritual, social, economic, and political characteristics. They also highlight the importance of recognising Indigenous laws and traditions and traditional knowledge in the decision-making, and facilitating government-to-government agreements and partnerships between Indigenous peoples and states on an equal basis. The case studies illuminate what Dayna Scott has accurately stated: "Looking at what happens in specific sites we begin to understand what is at stake in the bigger picture."⁵²² For this reason, in the next section, I use these case studies' conclusions to outline general principles of equitable treatment in environmental decision-making, which will be used in the analysis of the case studies.

6. Proposing Equity Principles by Which to Assess EIA

Based on the case studies of EJ's application to environmental decision-making, and considering the critiques to environmental decision-making and EIA, this section summarizes principles by which to assess EIA's ability to address environmental justice concerns of Indigenous peoples. While these principles are commonly expressed, no authors have specifically agreed upon their use. They may also overlap somewhat in terms of addressing distributional concerns of environmental decisions, procedural aspects, and recognition of Indigenous rights and ways of being.

First, relating to the recognition and special treatment of Indigenous peoples in EIA, EJ requires the protection of Indigenous peoples' right to self-determination, which is necessarily linked to their traditional territories and the health of socio-ecological systems. Environmental justice, therefore, acknowledges the existence of particular vulnerabilities that might stem from this integration between people and land (e.g., Indigenous laws of that place, economic, spiritual, and cultural ties to the land, reliance on natural resources for livelihood, etc.). For this reason, states must recognise and enforce Indigenous peoples' right to conduct environmental assessment and decision-making that affect traditional land and its socio-ecological systems, applying their knowledge, laws, and traditions.

⁵²² Dayna Scott, "The Networked Infrastructure of Fossil Capitalism: Implications of the New Pipeline Debates for Environmental Justice in Canada" (2013) 43 *Revue générale de droit* 11–66 at 56.

In an EJ approach, consultation is insufficient to ensure respect for self-determination. Deeper engagement with Indigenous communities is necessary for all stages of the assessment and decision-making, on a government-to-government basis, including opportunities for Indigenous peoples to provide FPIC. Finally, the recognition aspect of EJ encompasses the consideration of traditional knowledge as a valid and significant source to inform decision-making. Therefore, the principles by which to assess recognition aspects of environmental justice in EIA are:

- Compliance with the requirements of state laws and Indigenous rights;
- Opportunities for the establishment of government-to-government agreements about the management of traditional territories and natural resources;
- Representation of Indigenous peoples affected by individuals sharing equal decision-making power as the state representatives;
- Requirement for Free, Prior, and Informed Consent regarding the proposal of specific projects according to criteria established in government-to-government agreements.

Regarding procedural justice, considering equal decision-making power between the state and Indigenous governments, EIA institutional criteria for knowledge selection, significance determination, scoping, participation, and decision-making must respect Indigenous laws and policies. Criteria must also be thorough and accessible to the public, indicating clearly how the assessment and decision will deal with disparate impacts on Indigenous communities. Another essential measure is the provision of funding to cover expenses with designing and conducting EIA, such as expert consultation, legal representation, travel expenses, etc. Therefore, principles by which to evaluate procedural justice aspects of environmental justice in EIA are:

- Opportunity for joint design and management of EIA since its early stages throughout the process, with sufficient representation of Indigenous communities affected;
- Criteria for knowledge selection, significance determination, scoping, participation, and decision-making about proposed projects on traditional territories, based on the agreement between the states and Indigenous peoples potentially affected;
- Access to ample information and provision for funding to Indigenous representatives, sufficient to design and manage EIA process and decision-making;
- Regulatory and policy options for Indigenous community-led assessments substituting state conducted EIA.

Finally, regarding distributional aspects, EJ requires that EIA include socio-spatial evaluation of the distribution of adverse impacts on Indigenous communities, especially cumulative effects of past development on Indigenous peoples' rights. This data must inform decisions about the significance of the project's impacts and the scope of relevant issues and impacts on Indigenous communities. Furthermore, EJ requires that the decision favour Indigenous peoples' priorities to decide how to develop their traditional territories and their natural resources. Therefore, principles by which to assess distributional aspects of environmental justice in EIA are:

- Socio-spatial evaluation of the allocation of adverse effects on Indigenous peoples, based on criteria defined in the agreement between the state and Indigenous peoples affected;
- Cumulative impact assessments, with criteria defined in the agreement between the state and Indigenous peoples affected;
- Priority to local alternative development proposals that respect the values and interests of the Indigenous communities affected.
- Strategic Environmental Assessments, with criteria defined in the agreement between the state and Indigenous peoples affected.

As mentioned, these principles are designed to help evaluate how EIA and decision-making address environmental justice concerns with disparate adverse impacts of projects on Indigenous peoples in different regimes and contexts. As Robert Gibson highlights, on the one hand, EIA must count with a common set of fundamental requirements to inform policymaking, planning, and program design to post-approval project implementation and monitoring. On the other hand, EIA policies must be able to provide “flexibility and decentralization by respecting uncertainty and context.”⁵²³ These principles allow for a comprehensive analysis of EIA in general and serve as the basis for assessing specific legal and policy systems in regards to environmental justice for Indigenous peoples in environmental decision-making of large infrastructure projects, such as the case studies described in the following chapters.

⁵²³ Gibson, Doelle & Sinclair, *supra* note 314 at 261.

Chapter 4: Belo Monte Hydropower Project Impact Assessment and Decision-Making

1. Introduction

1.1. Overview and goals of the chapter

The Belo Monte dam is the fourth largest hydropower project in the world, located at the heart of the Brazilian Amazon forest, in Pará state.⁵²⁴ Since its inception, the project has attracted significant attention from the media, social and environmental movements, and the international community, for the extent of its impacts on the Xingu River watershed, including ecosystems, towns, fishery communities, and Indigenous peoples.⁵²⁵ Indigenous territories and environmentally protected areas occupy over half of the area of the Xingu River watershed.⁵²⁶ The Belo Monte project's approval was highly controversial due to the uncertainty of the dam's adverse effects, the failings in the impact assessment and decision-making process, and claims about violation of Indigenous rights.⁵²⁷ Despite all the complexity of those issues, which have been discussed in depth in scholarly research for decades now,⁵²⁸ Belo Monte received approval on the basis of the government's arguments around national interest and energy security. The main justification for the project was to generate energy to supply large cities of Brazil in the southeast region, such as São Paulo and Rio de Janeiro.⁵²⁹ Without the energy from the Belo Monte dam, Brazil would suffer

⁵²⁴ For more information about the inauguration of the Belo Monte dam, see Vilela, Pedro Rafael, "Brazil unveils world's fourth biggest hydropower plant", (28 November 2019), *Agência Brasil* (blog), online: <<https://agenciabrasil.ebc.com.br/en/politica/noticia/2019-11/brazil-unveils-worlds-fourth-biggest-hydropower-plant>>.

⁵²⁵ Robin Yapp, "Brazil's Belo Monte dam: a history of celebrity opposition", *The Telegraph* (28 January 2011), online: <<https://www.telegraph.co.uk/news/worldnews/southamerica/brazil/8287289/Brazils-Belo-Monte-dam-a-history-of-celebrity-opposition.html>>; Amazon Watch, "A Message from Pandora", *Amazon Watch* (video), online: <<https://messagefrompandora.org/>>.

⁵²⁶ *Estudos Etnoecológicos – EIA AHE Belo Monte*, by Eletrobrás (2009). The Brazilian Law considers Indigenous territories the areas that have been demarcated by the state through an administrative process of recognition. I use the term 'reserves' for areas that have been officially demarcated and recognised by the government, and 'traditional territories' or 'Indigenous lands' for areas that have been traditionally occupied by Indigenous peoples even if not recognized by the state.

⁵²⁷ Bratman & Dias, "Development blind spots and environmental impact assessment", *supra* note 363 at 4. The construction of the Belo Monte dam also made the news related to corruption scandals. The Operation Carwash, initiated by the Brazilian Federal Police, estimates that between one to two percent of the dam construction cost went to illegal campaign donation to candidates to the National Congress.

⁵²⁸ See, e.g., Philip M Fearnside, "Dams in the Amazon: Belo Monte and Brazil's Hydroelectric Development of the Xingu River Basin" (2006) 38:1 *Environmental Management* 16–27; Tatiana de Almeida Freitas Rodrigues Cardoso Squeff, *Estado Plurinacional. A Proteção do Indígena em Torno da Construção da Hidrelétrica de Belo Monte* (Curitiba: Juruá, 2016); Cecilia Campello do Amaral Mello, "Se houvesse equidade: a percepção dos grupos indígenas e ribeirinhos da região da Altamira sobre o projeto da Usina Hidrelétrica de Belo Monte" (2013) 16:1 *Novos Cadernos NAEA* 125–147.

⁵²⁹ The same argument, generating energy to large urban centres, have been used in other places around the world, including in Canada. See, e.g., Energy BC, "Large Hydropower Generating Stations in B.C.",

blackouts and incalculable damages in production, halting development overall.⁵³⁰ Similar to the Site C case study, in Canada, the climate change discourse helped reinforced the characterization of hydro as a “green” alternative in Brazilian policies.⁵³¹ Some argue that the energy from Belo Monte and other hydro projects in the Amazonian region is actually intended to feed the mining sector in the region.⁵³² Either way, the Brazilian government was successful in framing the need for that energy as a priority of the whole nation, as a homogeneous demand of the Brazilian population.⁵³³

But Brazilian society is far from homogeneous, and development does not hold a uniform definition among the diverse social and cultural groups living in the country. On the contrary, the 1988 Brazilian Constitution establishes a pluri-ethnic state, recognizing that many distinct social and cultural groups, including Indigenous peoples, co-exist within the Brazilian territory.⁵³⁴ As Indigenous peoples have occupied for time immemorial what is today known as Brazil, the Constitution recognises Indigenous peoples’ inherent right to their traditional lands, which encompasses the right to live according to their own traditions and worldviews and the right to be consulted in case of resource extraction proposals that affect their lands.⁵³⁵

During the Portuguese colonization period between the XVI and XVIII centuries, the types of contact of European settlers with Indigenous peoples were extremely varied; in some

(2016), *Energy BC* (website), online: <<http://www.energybc.ca/largehydro.html>>; Atkins, “Disputing the ‘National Interest’”, *supra* note 11.

⁵³⁰ The Brazilian Courts have broadly accepted this argument. See, e.g. Tribunal Regional Federal da 1a Região, 9a Vara Federal, Belém do Pará, 23 January 2015, *Ministério Público Federal v Norte Energia*, (2015) TRF1 (Brazil).

⁵³¹ See Eve Bratman, “Passive revolution in the green economy: activism and the Belo Monte dam” (2015) 15:1 *Int Environ Agreements* 61–77; Scott & Smith, “‘Sacrifice Zones’ in the Green Energy Economy”, *supra* note 33.

⁵³² See, e.g., Oswaldo Sevá Filho (Org), *Tenotã-Mô: Alertas sobre as Consequências dos Projetos Hidrelétricos no Rio Xingu*, 1st ed (São Paulo: International Rivers Network, 2005) at 30.

⁵³³ Atkins, “Disputing the ‘National Interest’”, *supra* note 11 at 4.

⁵³⁴ Fernando Antônio de Carvalho Dantas, “Entre a nação imaginada e o estado plurinacional: o reconhecimento dos direitos indígenas no novo constitucionalismo latino-americano” in Leonardo Avritzer et al, eds, *O constitucionalismo democrático latino-americano em debate Soberania, separação de poderes e sistema de direitos* (Belo Horizonte: Autêntica, 2016) 213.

⁵³⁵ *Constitution of the Federative Republic of Brazil*, *supra* note 201 at art. 231. Indigenous traditional territories are the ones that have been historically occupied by Indigenous peoples. Through the process of demarcation, these territories may become recognised as Indigenous territories, or Indigenous reserves (in the terminology closest to the Canadian legal context). According to the Brazilian legislation, an Indigenous land claim process is composed of five phases: area under study, areas that have been delimited, declared, homologated, and regularized. Fundação Nacional do Índio, online: < <http://www.funai.gov.br/index.php/indios-no-brasil/terras-indigenas>>. “Terra Indígena” (in Portuguese), or “Indigenous land” (in English), in Brazil is commonly used to refer to areas demarcated by the government – or Indigenous reserves in the North American tradition. However, I use the term “Indigenous traditional land” or “traditional territories” in the dissertation to refer to lands that were traditionally occupied by Indigenous peoples, not necessarily demarcated and recognised. And I refer to “Indigenous reserves” as areas that have been demarcated and recognised by the state.

cases, very violent with wars and deaths, and in other cases, Indigenous individuals becoming more like the settlers, and sometimes cooperating in the colonization processes.⁵³⁶ Nevertheless, despite the colonial strategy to exterminate or assimilate Indigenous peoples, they are currently present and growing strong in Brazil.⁵³⁷ According to the last population census (2010), Brazil's Indigenous population is of approximately 900.000 people (from the Brazilian total population of almost 210 million people), with 58% living on Indigenous reserves, 6% living in other rural areas, and 36% living in urban centres. In Pará state, where Belo Monte dam is located, almost 70% of Indigenous people live on reserves.⁵³⁸

The approval and construction of Belo Monte are the continuation of a long history of conflict between the Brazilian government (throughout different presidents' mandates over the years) and local peoples, especially the Indigenous peoples of the *Médio Xingu* River.⁵³⁹ The first proposal for a hydropower project in the Xingu River bend, in the 1970s, was the Kararaô dam, which was conceived of as part of a larger project of six dams, including the Kararaô. The dam was intended to flood a reservoir of 1,160 square kilometres, including Indigenous traditional lands, with installed capacity of 8,380 megawatts.⁵⁴⁰ In opposition to the proposal, Indigenous groups organized the 1989 First Encounter of Indigenous peoples of the Xingu, an event that contributed to persuading the World Bank to withdraw their financial support for the project.⁵⁴¹ That event is widely known by the image of Tuíra, a female warrior from the Kayapó people, touching the face

⁵³⁶ Darcy Ribeiro, *Os Índios e a Civilização. A integração das populações indígenas no Brasil moderno.*, 7th ed (São Paulo: Global Editora, 2017) at 143; See Paul Henley, "'Os índios e a civilização': A Critical Appreciation" (1978) 4:3 Cambridge Anthropology 88–111 for a critical approach to Ribeiro's work.

⁵³⁷ Maria Regina Celestino de Almeida, *Os índios na história do Brasil* (Rio de Janeiro: Editora FGV, 2010) at 14.

⁵³⁸ *O Brasil Indígena*, by Instituto Brasileiro de Geografia e Estatística (IBGE) & Fundação Nacional do Índio (FUNAI) (Brasília, Brazil, 2010).

⁵³⁹ The Xingu Watershed is usually divided into three parts for the purposes of characterizing the area: Alto Xingu, in the state Mato Grosso, southern of Pará, where the headwaters of the River are located; Médio Xingu, the Middle part of the River; and Baixo Xingu, located in the northern part of Pará, from the River bend until it reaches the Rio Amazonas. The River bend where Belo Monte is located is referred to as Volta Grande do Xingu.

⁵⁴⁰ Fundação Nacional do Índio (FUNAI), Brasília, 30 September 2009, Parecer Técnico 21 (2009) FUNAI (Brazil) at 11.

⁵⁴¹ Philip Martin Fearnside, "Belo Monte: Actors and arguments in the struggle over Brazil's most controversial Amazonian dam" (2017) 148:1 DIE ERDE – Journal of the Geographical Society of Berlin 14–26. Fearnside explains that, differently from the 1980s dam proposal, the new project was paid by Brazilian sources, through the Banco Nacional do Desenvolvimento (BNDS), the National Bank for Development, and pension funds. However, the BNDES has also served as a 'conduit' from international sources, especially the Development Policy Loans (DPLs), which have become the main form of the World Bank lending resources for infrastructure projects. These loans escape from the review system within the World Bank group.

of the director of Eletronorte (the company proponent of the Kararaô dam) with a large hunting knife.⁵⁴²

In 2001, with an energy crisis in place and waves of electricity blackouts across the country, the Brazilian government made a strong political case to revive the project under the argument for generating sufficient electrical power to sustain the country's development.⁵⁴³ The Brazilian government used the energy crisis as a political opportunity to propose another dam.⁵⁴⁴ In 2002, Eletrobrás presented modified plans for the dam,⁵⁴⁵ now named Belo Monte (a one-dam project as opposed to a complex of six dams), with a reservoir that would require less water volume and extension and no flooding of Indigenous reserves. Instead, the new project would significantly diminish the environmental flows of the Xingu River in a River stretch of approximately one hundred kilometres of the Volta Grande do Xingu River bend, where two Indigenous reserves are located as well as other traditional communities living by the River (the *ribeirinho* communities).⁵⁴⁶ The three Indigenous reserves in the Volta Grande do Xingu are the Paquçamba and Juruna Km 17 (of the Juruna people) and the Arara da Volta Grande do Xingu (Arara people). The other Indigenous reserves affected by Belo Monte are Arara da Cachoeira Seca, (of the Arara people); Trinchreira do Bacajá (Xikrin people); Koatinemo (Asurini people); Kararaô (of the Kararaô people); Arawaté Igarapé Ipixuna (of the Arawaté people); Apyterewa (of the Parakanã people); Xipaya (of the Xipaya people); and the Kuruaia (of the Kuruaia people). Most of these communities rely on fishery, hunting, gathering, and small-scale agriculture for their food sources, and the commerce of traditional craft products, as their main sources of income.⁵⁴⁷

In 2005, the National Congress authorized Belo Monte to go under an environmental review, under a special urgent process.⁵⁴⁸ The proposal, then, gained traction with the first

⁵⁴² Conselho Indigenista Missionário, "Os povos indígenas do Xingu e a hidrelétrica Belo Monte", (27 June 2008), *CIMI* (website), online: <<https://cimi.org.br/2008/06/27578/>>.

⁵⁴³ Philip Martin Fearnside, "Brazil's Belo Monte Dam: Lessons of an Amazonian resource struggle" (2017) 148:2-3 *DIE ERDE* – Journal of the Geographical Society of Berlin 167-184 at 171.

⁵⁴⁴ The country has a history of blackouts, not all related to energy production, but many of them due to droughts and failures in the distribution system. Jonathan Watts, "Brazil's worst drought in history prompts protests and blackouts", *the Guardian* (23 January 2015), online: <<http://www.theguardian.com/world/2015/jan/23/brazil-worst-drought-history>>; J.P., "Power to the people", *The Economist* (5 February 2014), online: <<https://www.economist.com/americas-view/2014/02/05/power-to-the-people>>.

⁵⁴⁵ Eletrobrás is the public national company for energy production. For more information, please see Eletrobrás Brasil, "Áreas de Atuação", *Eletrobrás* (website), online: <<http://eletrobras.com/pt/Paginas/Areas-de-Atuacao.aspx>>.

⁵⁴⁶ For results of interviews with the communities of the Volta Grande and their children's essay analysis regarding the Belo Monte dam, see Mello, "Se houvesse equidade", *supra* note 528.

⁵⁴⁷ Eletrobrás, *supra* note 602.

⁵⁴⁸ Fearnside, "Brazil's Belo Monte Dam", *supra* note 543 at 171. This special process would exempt the government from conducting any consultation with Indigenous peoples

stage of the government's Program for Acceleration of Growth, implemented in 2007.⁵⁴⁹ In contrast with Indigenous peoples' long wait for the enactment of specific laws to regulate Indigenous rights recognised in the Constitution,⁵⁵⁰ the decree authorizing the licensing of the Belo Monte project was approved in a record time of fifteen days in Congress.⁵⁵¹ Additionally, Abers et al. indicate that the decision-making was highly centralized around the government's vision of economic development, as agencies connected to the Ministry of Mines and Energy pressured the Ministry of Environment's decision-makers to approve the project.⁵⁵²

In 2009, Eletrobrás conducted and made public Belo Monte's environmental and social impact statement (ESIS).⁵⁵³ The first public participation meeting about Belo Monte, called by Eletrobrás to introduce the project to the residents of the region, happened in Altamira Town only two days after the publication of the ESIS.⁵⁵⁴ In April 2010, Norte Energia Consortium,⁵⁵⁵ formed by Eletrobrás and three private companies – Camargo Correa, Andrade Gutierrez, and Odebrecht – won the bid and signed the contract to construct and operate the dam.⁵⁵⁶ In November 2015, Norte Energia received its final licence to operate Belo Monte and allow power production, even though construction and flooding was only completed in 2019. It is estimated that the project cost a total of US\$16 billion, with 80% of it financed by the Brazilian National Development Bank (BNDS) and 20% by private corporations.⁵⁵⁷

This analysis of the Belo Monte case study is important for understanding whether and to what extent impact assessment and environmental decision-making can address Indigenous peoples' concerns with disparate adverse effects of large infrastructure projects on

⁵⁴⁹ In Portuguese, *Programa de Aceleração do Crescimento*. For more information, see Ministério do Planejamento Brasil, "Sobre o PAC - PAC", *Ministério do Planejamento* (website), online: <<http://www.pac.gov.br/sobre-o-pac>>.

⁵⁵⁰ *Constitution of the Federative Republic of Brazil*, *supra* note 201.

⁵⁵¹ Bibiana Graeff, "Should We Adopt a Specific Regulation to Protect People That Are Displaced by Hydroelectric Projects: Reflections Based on Brazilian Law and the Belo Monte Case Green Justice for All: International and Comparative Dimensions of Environmental Justice" (2011) 7 Fla A & M U L Rev 261–290 at 273.

⁵⁵² Abers, Oliveira & Pereira, *supra* note 245 at 12.

⁵⁵³ Peters, *supra* note 72 at 84, 85.

⁵⁵⁴ Fearnside, "Brazil's Belo Monte Dam", *supra* note 543 at 171.

⁵⁵⁵ Even though four companies form the Norte Energia consortium, I refer to the consortium as "company" or "Norte Energia" because those are the most common terms that the interviewees used.

⁵⁵⁶ Peters, *supra* note 72 at 84–87.

⁵⁵⁷ Eve Z Bratman, "Contradictions of Green Development: Human Rights and Environmental Norms in Light of Belo Monte Dam Activism" (2014) 46:2 *Journal of Latin American Studies* 261–289; Bratman & Dias, "Development blind spots and environmental impact assessment", *supra* note 363 at 269. According to the authors, the Operation Carwash, conducted by the Brazilian Federal Police against corruption in public administration, estimates that one to two percent of the construction cost of Belo Monte went to illegal campaign donation for candidates to the National Congress. In addition, the ownership of part of the consortium (Eletrobrás) and the financing bank (BNDS) by the national government calls into question the impartiality or ability to be fair in the regulatory process.

Indigenous communities and lands; and if so, to what extent and how they can deal with these impacts. This becomes even more relevant considering that impact assessment is the only opportunity available for affected communities to engage in decision-making about infrastructure.⁵⁵⁸

This chapter contains a description and a discussion of impact assessment and decision-making for the Belo Monte hydropower dam, focusing on the adverse effects on and engagement with Indigenous peoples of the Xingu River watershed. The description identifies the failings of the impact assessment process, violation of Indigenous rights, and the distinct character of adverse effects over Indigenous peoples and lands, when compared to the mainstream society, characterizing Belo Monte case study as a case of environmental injustice for Indigenous peoples.⁵⁵⁹

The first section of the chapter provides a brief background about development policies in the Brazilian Amazon to set out the historical and political context for the Brazilian government's decision to approve Belo Monte, and a brief description of the project focusing on its biophysical impacts, with social, cultural, and environmental consequences for Indigenous peoples.⁵⁶⁰ The dam is one of the most recent projects funded by the Brazilian state in the Amazon region that include a series of infrastructure projects' that had the purpose of 'developing' the region and ensuring the assimilation of Indigenous peoples and lands.⁵⁶¹

The second section of the chapter contains an overview of the Brazilian legal regime applied to the assessment of and decision-making about Belo Monte, including environmental laws, Indigenous Constitutional rights, and impact assessment laws and policies. The third section contains a brief outline of how the Belo Monte assessment and decision-making process took place, with a focus on the participation of Indigenous peoples affected by the project. The fourth section offers a description of how the courts applied environmental laws and how they considered Indigenous rights in lawsuits challenging the approval of the dam. The information in these sections is relevant for understanding the violations of Indigenous rights and environmental laws that occurred in the Belo Monte decision-making process.

⁵⁵⁸ Kathryn Hochstetler, "The Politics of Environmental Licensing: Energy Projects of the Past and Future in Brazil" (2011) 46:4 *Studies in Comparative International Development* 349–371. at 353.

⁵⁵⁹ Philip Fearnside, "Justica ambiental e barragens amazonicas", (10 September 2019), *Amazonia Real* (blog), online: <<https://amazoniareal.com.br/justica-ambiental-e-barragens-amazonicas-13-reformas-necessarias/>> .

⁵⁶⁰ I acknowledge that the separation between social, cultural, and environmental effects is an artificial one, which does not necessarily reflect how Indigenous peoples see their relationship with land, waters, animals. I make this distinction, though, in reference to the language that the government and proponent used in the assessment and decision-making process.

⁵⁶¹ The integration of Indigenous peoples to the mainstream society through the loss of Indian status has been a strategy of the colonial government to make Indigenous traditional lands available for economic activities and development. See, for e.g., Felipe Arocena, "Multiculturalism in Brazil, Bolivia and Peru" (2008) 49:4 *Race & Class* 1–21.

The fifth section of the chapter outlines and categorizes the issues I heard from participants in interviews with Indigenous leaders and community members, activists, and government officials, and my interpretation of the participants' perceptions of the process of decision-making about the dam and its adverse effects on Indigenous peoples and lands. I categorize the issues into the three aspects of environmental justice described in the literature review chapter – recognition of the groups affected by environmental decision-making; procedural justice issues related to public engagement, consultation, and Indigenous peoples' decision-making power; and distributional justice aspects, considering the magnitude and depth of adverse effects on Indigenous communities, lands, their livelihood and cultures. The chapter ends with a conclusion on how the matters raised by the participants reflect issues related to Indigenous peoples' decision-making power in processes about hydropower dams in Brazil, consideration for Indigenous ways of life, and violation of Indigenous Constitutional rights.

1.2. Brief historical background of development in the Brazilian Amazon

Almost fifty years ago, the Uruguayan author Eduardo Galeano published the book *The Open Veins of Latin America*, describing the historical formation of Latin American States, a project of imperialism centred on extractive industries, such as mining, logging, monocultures of cocoa, coffee, and soybeans, with the main goal of generating profits for companies in Europe and the United States.⁵⁶² The book lays out a long history of exploitation of the region's natural resources, human and economic capital, since the sixteenth century. The reason this story is relevant to this dissertation is because this extractive paradigm, so deeply rooted in Latin American legal, economic, and political systems, extends its influence to how Brazilian laws, policies, and institutions regulate decision-making about infrastructure projects today.⁵⁶³ Laws and law enforcement are made malleable to favour economic interests.⁵⁶⁴ Although Brazil gained legal independence from Portugal in the nineteenth century, between 1821 and 1825, colonization through resource extraction continues today, which is clearly visible in the lack of enforcement of Indigenous rights, in the non-compliance with environmental laws,

⁵⁶² Eduardo Galeano, *Open veins of Latin America: five centuries of the pillage of a continent* (New York: Monthly Review Press, 1973).

⁵⁶³ A contemporary discussion of this settler colonial and extractive political economy is found in Gómez-Barris, *supra* note 1; Ricardo Junior de Assis Fernandes Gonçalves, "Capitalismo extrativista na América Latina e as contradições da mineração em grande escala no Brasil" (2016) 15:29 *Cadernos PROLAM/USP* 38–55.

⁵⁶⁴ See, e.g., the analysis of Brazilian environmental laws by the World Bank: "Investors prefer investing their capital where regulatory frameworks are predictable. Therefore, there is urgency in the need to develop a modern, transparent, and predictable regulatory framework in order to provide more certainty in the functioning of the environmental decision-making, a regulatory framework that is broader for the energy sector, in order to create profit to all Brazilians through less expensive electricity costs." [Translation by the author from Portuguese]. *Licenciamento Ambiental de Empreendimentos Hidrelétricos no Brasil: Uma Contribuição para o Debate. (Em Três Volumes) Volume I: Relatório Síntese*, by World Bank, 40995-BR (Brasília, Brazil: World Bank, 2008). At 13. A concrete example of this phenomenon is the *ruralista* front in the Brazilian National Congress openly defending the interests of the large-scale agribusiness sector and lobbying for deregulation of environmental and Indigenous laws.

and in the political power of large corporations playing out through natural resource decision-making.⁵⁶⁵

In the mid twentieth century, the Brazilian government intensified colonization policies in the Amazon by building infrastructure and providing incentives for migration to the region, such as the concession of lands to agricultural settlers.⁵⁶⁶ Moreover, the government used assimilation policies, aiming to integrate Indigenous individuals into mainstream society, in order to dissolve Indigenous communities and facilitate the exploitation of natural resources on Indigenous territories.⁵⁶⁷ In 1972, the Brazilian government began building the *Trans-Amazonica* highway, which opened a transportation route for the exploitation of land and natural resources. The highway also made possible large-scale migration waves from the south to the north of the country for people hoping to find jobs or start new businesses.⁵⁶⁸ Today, there are intensive livestock grazing, commercial logging, soybean farming, and mineral extraction activities in the region, as well as many ongoing conflicts about illegal land occupation.⁵⁶⁹ Illegal mining and logging, for instance, represent important threats to the integrity of Indigenous territories.⁵⁷⁰ And agribusinesses in soy production and cattle grazing have been demanding more and more space in the Amazon forest.⁵⁷¹ Nevertheless, the Xingu watershed holds an important area for Indigenous lands and ecological protection – the Xingu National Park, with approximately 25,000 square kilometres of extension in the Mato Grosso state.⁵⁷²

The national government policies to develop the Amazon have direct effects on Indigenous peoples, first by contributing to an escalation of social and economic pressures over traditional lands, which increase the invasion of and illegal resource extraction on

⁵⁶⁵ See, e.g., Sônia Barbosa Magalhães, Moral Hernández & Francisco Del, “Ciência, cientistas e democracia desfigurada: o caso Belo Monte” (2011) 14:1 Novos Cadernos NAEA 79–96; Alberto Fonseca, Luis Enrique Sánchez & José Claudio Junqueira Ribeiro, “Reforming EIA Systems: A Critical Review of Proposals in Brazil” (2017) 62 Environmental Impact Assessment Review 90–97. at 94.

⁵⁶⁶ Heather Randell, “Structure and agency in development-induced forced migration: the case of Brazil’s Belo Monte Dam” (2016) 37:3 Popul Environ 265–287.

⁵⁶⁷ Violeta Refkalefsky Loureiro, “Desenvolvimento, meio ambiente e direitos dos índios: da necessidade de um novo ethos jurídico” (2010) 6:2 Revista Direito GV 503–526; Congresso Nacional, Brasília, 19 December 1973, Lei 6001 (Estatuto do Índio), (1973) Planalto (Brazil) at art. 4. The work of Darcy Ribeiro is especially important to describe the federal government policies to ‘pacify’ and ‘assimilate’ Indigenous peoples into the national identity as ‘neo-Brazilians’. Ribeiro, *supra* note 536.

⁵⁶⁸ Airton dos Reis Pereira, “Colonization and Conflicts in Transamazonics in Times of the Brazilian Civil-Military Dictatorship” (2013) 31:2 Clio: Revista de Pesquisa Histórica 1–17.

⁵⁶⁹ Martin Coy & Michael Klingler, “Frentes pioneiras em transformação: o eixo da BR-163 e os desafios socioambientais” (2014) 7:1 Revista Territórios e Fronteiras 1–26; Randell, “Structure and agency in development-induced forced migration”, *supra* note 566. Belo Monte instigated a new wave of migration to Pará state, especially to the city of Altamira. Newcomers had high hopes to find jobs that the government promised to create through the construction of Belo Monte.

⁵⁷⁰ See the report *Violência Contra os Povos Indígenas no Brasil - Dados 2019*, by Conselho Indigenista Missionário (Brasília, Brazil: Conselho Indigenista Missionário, 2020). at 78–106.

⁵⁷¹ Manuela Carneiro da Cunha et al, “Indigenous peoples boxed in by Brazil’s political crisis” (2017) 7:2 HAU: Journal of Ethnographic Theory 403–426. at 404.

⁵⁷² Sevá Filho (Org.), *supra* note 532 at 29.

Indigenous lands.⁵⁷³ Pará state, for instance, presents one of the highest instances of illegal occupation of Indigenous territories in Brazil.⁵⁷⁴ Policies, laws, and funding for infrastructure are systematically undermining Indigenous peoples' access to their traditional lands. Indigenous lands not recognised by the state, for instance, are located in areas where the government intends to construct large infrastructure, and invasion and violent conflicts on Indigenous territories keep happening without government intervention.⁵⁷⁵ As Abers et al. explain, the state has more capacity to build distant infrastructure that provides resources for large corporations than to implement social and environmental policies that bring improvement to local people's lives.⁵⁷⁶

Between the 1950s and 1980s, Brazil's development vision was based on a strong and authoritarian state intervention in economy, limited political representation, populism, high levels of discretion, top-down and insulated decision-making.⁵⁷⁷ Even though the country went through democratization from the military regime in the 1980s and through neoliberal market-oriented reforms in the 1990s, the idea of 'developmentism,' characterized by increased state intervention by the government, revived in the early 2000s. In this model of developmentism, substantive democratic principles, such as demands for transparency, protection of minority groups, a system of checks and balances, and due process are not respected in the design and implementation of development policies.⁵⁷⁸ BNDES, for instance, which contributed to the federal government's heavy investment in infrastructure through the Program for Acceleration of Growth, has no general guidelines for social control over its lending priorities –lack of public hearings in connection with its policy-lending and presence of heavy restrictions for affected groups to demonstrate opposition to development projects.⁵⁷⁹ Higher-level government bodies in the federal government hold centralized power in establishing national development policies, while local governments and communities lack influence in defining those policies.⁵⁸⁰

⁵⁷³ *Violence Against Indigenous Peoples In Brazil. Data for 2017*, by Conselho Indigenista Missionário (Brasília, Brazil: Conselho Indigenista Missionário, 2017) at 78-106.

⁵⁷⁴ See the report: Conselho Indigenista Missionário, *supra* note 562 at 78-106. The report indicates that the state of Pará registered 36 cases of invasion and illegal natural resource extraction. It is the third state with the greatest number of cases.

⁵⁷⁵ *Violência contra os Povos Indígenas no Brasil-Dados de 2018*, by Conselho Indigenista Missionário (Brasília: Conselho Indigenista Missionário, 2018).

⁵⁷⁶ Abers, Oliveira & Pereira, *supra* note 245 at 5.

⁵⁷⁷ Mariana Mota Prado, Mario Schapiro & Diogo R Coutinho, "The Dilemmas of the Developmental State: Democracy and Economic Development in Brazil Special Issue: Law and Development: What's Next: Country Case Studies" (2016) 2 Law & Dev Rev 369-410 at 374.

⁵⁷⁸ *Ibid.*

⁵⁷⁹ *Ibid.* at 389, 390

⁵⁸⁰ Abers, Oliveira & Pereira, *supra* note 245.

Even so, the Brazilian government is still seeking to stimulate ‘modernization’ and ‘development’ in the Amazon through large projects.⁵⁸¹ For some scholars, the implementation of hydropower dams in the region today is a symbol of the continuation of developmental strategies from the 1970s.⁵⁸² Hydroelectricity is the main source of power in Brazil, representing 62% of the energy consumed across the country.⁵⁸³ Energy development through large hydropower projects is, therefore, a tradition in the country, being closely connected to the idea of national sovereignty and energy security, and supporting a centralized decision-making model.⁵⁸⁴ The policy of dam-building in Brazil originated in the 1970s during the period of military dictatorship, and was revived in the early 2000s through the government Program for Acceleration of Growth.⁵⁸⁵ The government program’s goal was to invest in planning and construction of large infrastructure to boost economic development in the country.⁵⁸⁶ Belo Monte was part of this new government vision.⁵⁸⁷

The Belo Monte hydroelectric project is one in a series of dams in the Brazilian Amazon region. Over a hundred hydropower dams have been built in the Amazon watershed, and the government is currently considering 428 proposals for further dam constructions.⁵⁸⁸ The watersheds in the Amazon have the highest unexplored hydraulic potential in Brazil for further power generation.⁵⁸⁹ Recent projects, such as Tucuruí and São Luiz do Tapajós, triggered strident opposition from members of environmental organizations and Indigenous groups. Five major hydroelectric dams are now suspended in the region due to challenges in courts. Despite these controversies, the Brazilian law provides significant leeway for the approval of mega hydro dams, based on the notion of national interest and the need for electrical power to allegedly ensure national development.⁵⁹⁰ Although Brazilian law acknowledges Indigenous rights and environmental protection,

⁵⁸¹ Fernanda Cristina de Oliveira Franco & Maria Luiza Pereira de Alencar Feitosa, “Desenvolvimento e Direitos Humanos. Marcas de Inconstitucionalidade no Processo de Belo Monte” (2013) 9:1 Revista Direito GV 93–114 at 95.

⁵⁸² Bratman, “Contradictions of Green Development”, *supra* note 557 at 268.

⁵⁸³ *Anuário Estatístico de Energia Elétrica*, by Empresa de Pesquisa Energética (Brasília, 2016).

⁵⁸⁴ Franco & Feitosa, *supra* note 573; *Constitution of the Federative Republic of Brazil*, *supra* note 201 at art. 176 para 1. All hydraulic potentials in the country belong to the Union and the utilization of those potentials may only take place with authorization by the Union.

⁵⁸⁵ Carneiro da Cunha et al, *supra* note 563 at 405.

⁵⁸⁶ Ministério do Planejamento Brasil, *supra* note 549.

⁵⁸⁷ Indigenous peoples are often seen as hindrances to economic development in the Amazon, especially in the Belo Monte decision-making. See Philip Fearnside, *Hidrelétricas na Amazônia. Impactos Ambientais e Sociais na Tomada de Decisões sobre Grandes Obras. Vol 3.* (Manaus, Brazil: Instituto Nacional de Pesquisas da Amazônia, 2019) at 45.

⁵⁸⁸ Edgardo M Latrubesse et al, “Damming the rivers of the Amazon basin” (2017) 546:7658 *Nature* 363–369.

⁵⁸⁹ Agência Nacional de Energia Elétrica, *Atlas da Energia Elétrica no Brasil* (2008).

⁵⁹⁰ Atkins, “Disputing the ‘National Interest’”, *supra* note 11.

government's decision-making model about dams seems to follow a different direction. The case of the Belo Monte is exemplary of this phenomenon.⁵⁹¹

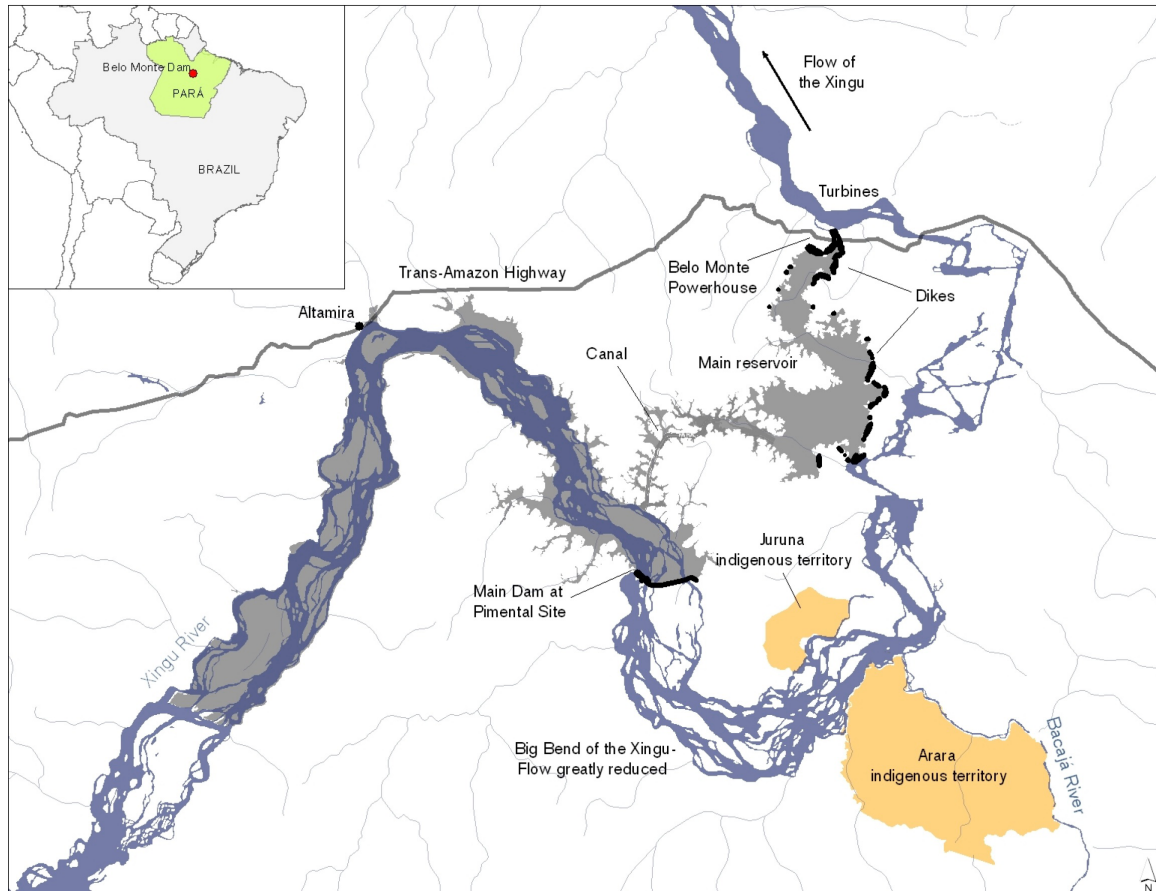
1.3. Belo Monte project and biophysical impacts

The government of Brazil recently inaugurated the Belo Monte hydro project in the Xingu watershed, Pará state, after a long decision-making, construction, and implementation process.⁵⁹² The dam inundated a total of 478 square kilometres to produce 11,233 megawatts per year. The project's reservoir, located in a River bend close to the town of Altamira, was formed through a canal that diverts the water from the Xingu River to an artificial lake. This way the dam can produce energy in two different power plants: One at the Pimental site, on the original River route, is expected to generate 233 megawatts of installed capacity, through six turbines; and the other power plant, Belo Monte, is located at the top part of the reservoir and is expected to generate 11,000 megawatts through 18 turbines.⁵⁹³

⁵⁹¹ Fearnside, *supra* note 587.

⁵⁹² Agência Brasil, *supra* note 524.

⁵⁹³ IBAMA, *Termo de Referência para Estudo de Impacto Ambiental e Respectivo Relatório de Impacto Ambiental – EIA/RIMA. Aproveitamento Hidrelétrico Belo Monte* (2007).



Map 1: Location of the Belo Monte Dam. Source: International Rivers⁵⁹⁴



Figure 4: Belo Monte power plant. April 19, 2018. At that time, there were ten turbines installed and only three of them generating energy. Source: Author's personal files.

⁵⁹⁴ International Rivers, *Belo Monte Dam* (Oakland, US: International Rivers, 2012). The areas in gray are flooded areas, forming the Belo Monte reservoir. The Main Dam at the Pimental Site is the largest dam in terms of extension, but the Belo Monte Powerhouse concentrates most of the energy produced (11,000MW per year).

By creating an artificial canal and reservoir, the dam significantly changes the environmental flow and the composition of the River waters in the *Médio Xingu* Watershed. In regards to the River flow, Belo Monte will directly affect at least 170 kilometres of the River by flooding approximately half and dewatering the rest of that stretch. Mark Pérez explains that the Xingu River bend, the Volta Grande do Xingu, had a complex system of watery channels, powerful rapids, and low waterfalls before Belo Monte was installed.⁵⁹⁵ The dam stabilizes the seasonality of the Xingu River hydrological cycle, and the Pimental dam, in particular, transformed much of the upstream portion of the River “from a free-flowing lotic system to a still, depositional system.”⁵⁹⁶ In other words, the dam complex slows down the River by flooding one portion of it while drying another portion downstream. The changes in the dynamic of the River are eliminating fish habitats and migratory routes for species that are reliant on rapid flows.⁵⁹⁷ Pérez expressed some of the magnitude of these impacts to the local landscape and the ecosystem:

We are not just losing dots on a map, a shorthand expression for the distributions of organisms documented by biological inventories. We are losing the extensive rapids, deep flowing channels, highly reticulate braids, and extremely variable flood pulses that contribute to the Xingu’s exceptional physical and seasonal complexity. We are losing the resiliency of a system that has been an incubator for aquatic diversity and evolution in large river rapids. The loss is especially acute because the Xingu is the second-largest clearwater basin in South America.⁵⁹⁸

In regards to the water composition, there was a significant increase in the organic materials present in the River due to the decomposition of the vegetation that was not properly removed before the flooding of the reservoir. The River also receives effluents from the urban sewage system of Altamira. Because the flow of the River has slowed down it does not have the same capacity to naturally decompose those substances. Research shows that there has been a significant increase of carbon levels and reduction of oxygen levels in the waters since the implementation of the dam, which also adversely affects fish and fish habitat.⁵⁹⁹

⁵⁹⁵ Mark Sabaj Pérez, “Where the Xingu Bends and Will Soon Break” *American Scientist* (December 2015) 395 at 399.

⁵⁹⁶ *Ibid.* at 400.

⁵⁹⁷ Cristina Adams et al, “A situação ambiental no trecho do Rio Xingu afetado pela UHE Belo Monte a montante da barragem Pimental” in Sônia Barbosa Magalhães & Manuela Carneiro da Cunha, eds, *A Expulsão de Ribeirinhos em Belo Monte Relatório da SBPC* (Altamira, PA: Sociedade Brasileira para Progresso da Ciência, 2017) 129; Pérez, *supra* note 595 at 400.

⁵⁹⁸ Pérez, *supra* note 595 at 403.

⁵⁹⁹ Adams et al, *supra* note 589 at 138.

Those biophysical changes are particularly critical for the Indigenous peoples living on eleven Indigenous territories within the area of the influence of the dam:⁶⁰⁰

- The Paquiçamba and the Juruna Km 17, the traditional territories of the Juruna people;
- Arara da Volta Grande do Xingu, and Arara da Cachoeira Seca, territories of the Arara people;
- Trinchreira do Bacajá, land of the Xikrin people;
- Koatinemo, land of the Asurini people;
- Kararaô, territory of Kararaô people;
- Arawaté Igarapé Ipixuna, territory of the Arawaté people;
- Apyterewa, land of the Parakanã people;
- Xipaya territory of the Xipaya people;
- and the Kuruaia territory, of the Kuruaia people.

The dam predominantly and significantly disrupts the environmental flows of the Xingu River in the Volta Grande do Xingu River bend, where three Indigenous reserves are located as well as other traditional communities living by the River (the *ribeirinho* communities).⁶⁰¹ The water scarcity drastically impacts the ecosystem, by drying up the alluvial forests and islands, eliminating floodplains, and causing the water temperature to increase and oxygen levels to decrease. The changes affect fish and fish habitat, causing some fish species to be extinct.⁶⁰² Nevertheless, when the water levels rise too quickly, due to precipitation, the exceeding water from the reservoir suddenly flows downstream through the dam's spillway. For Indigenous communities such as the Jurunas of the Paquiçamba, who live close to the spillway, this causes uncertainties in terms of their safety and their use of the land.⁶⁰³

Research demonstrates that the government and the proponent, Norte Energia, did not inform Indigenous peoples living in Volta Grande about the changes in the water quality and that it is unclear whether their water use has been compromising their health.⁶⁰⁴ Indigenous peoples expressed concern with contamination by vegetation flooded in the reservoir and mentioned that the environmental assessment did not consider that many of

⁶⁰⁰ In the Brazilian legal regime, Indigenous peoples are also referred to as *etnias* or Indigenous ethnic groups. One *etnia* may occupy more than one Indigenous traditional territory, and each territory encompasses a group of villages. The area of influence of the project is the area considered in the impact assessment.

⁶⁰¹ Mello, "Se houvesse equidade", *supra* note 528 at 128. *Ribeirinhos* are traditional communities that live at the banks of the rivers and rely on fish and local ecosystems for their survival. Many members of those communities are Indigenous families and individuals who live outside of the Indigenous reserves.

⁶⁰² *Estudos de Impacto Ambiental Usina Hidrelétrica Belo Monte*, by Eletrobrás (Brasília, Brazil: Eletrobrás, 2009), at vol 19, pages 306, 307.

⁶⁰³ Mello, "Se houvesse equidade", *supra* note 528 at 137.

⁶⁰⁴ *Ibid.*

the flooded islands had poisonous flora species, such as the *jaborandi* and *timbó*.⁶⁰⁵ The Juruna people of the Paquiçamba reserve, in particular, expressed concern with the proliferation of mosquitos that transmit malaria, which reproduce mostly during the dry season.⁶⁰⁶

The changes in the River affect the survival of Indigenous peoples by altering their multiple uses of the River. The water systems of the Xingu are fundamental to Indigenous peoples' mobility, for fisheries and hunting, and for their cultural and spiritual practices.⁶⁰⁷ In the review of the project, the National Indian Foundation (FUNAI),⁶⁰⁸ the government agency that is responsible for ensuring the execution of all government policies for Indigenous peoples and protecting traditional Indigenous territories, expressed concern with the biological and ecological effects of the changes in the environmental flow, indicating that the maintenance of the fish population was crucial for the survival of Indigenous peoples of the region.⁶⁰⁹ FUNAI also indicated the possibility of a significant increase in deforestation in the region, due to the population growth led by the project construction. The migration of temporary workers would add a strain on the extraction of natural resources.⁶¹⁰ Deforestation will cause the loss of wildlife habitats and the degradation of water sources, which affects fish. This process will most acutely impact Indigenous peoples, who rely on fishing and hunting for their food sources.⁶¹¹ FUNAI also pointed out to the existence of other natural resource developments in the region, which associated with Belo Monte's impacts, would increase the influx of people and the generation of cumulative adverse effects over social and ecological systems.⁶¹² For most Indigenous communities, the influx of workers lead to the presence of more trespassers in their reserves.⁶¹³

Some Indigenous peoples have lost their most important mean of transportation, the navigation.⁶¹⁴ For some communities, the creation of the reservoir means they cannot count with certain islands, rocks, or riverbanks to spatially orient themselves.⁶¹⁵ The effects on navigation are expected to harm inter-communities relationship, family, commercial, and social relationships.⁶¹⁶ For some communities, all changes in the environment will cause a

⁶⁰⁵ *Ibid.* at 134

⁶⁰⁶ *Ibid.* at 138

⁶⁰⁷ *Ibid.*

⁶⁰⁸ In Portuguese, *Fundação Nacional do Índio*.

⁶⁰⁹ Fundação Nacional do Índio (FUNAI), *supra* note 540 at 92.

⁶¹⁰ *Ibid.* at 20.

⁶¹¹ *Ibid.*

⁶¹² *Ibid.* at 21.

⁶¹³ *Ibid.* at 45.

⁶¹⁴ *Ibid.* at 18.

⁶¹⁵ *Ibid.* at 43.

⁶¹⁶ *Ibid.* at 48.

cosmological change, leading away the spirits that live in the Xingu.⁶¹⁷ Many Indigenous burial sites are located in the islands that the reservoir flooded.⁶¹⁸ Indigenous peoples of the *Médio Xingu* have their collective identities and relationships closely connected to the dynamics of the River. Their ways of being and their subsistence depend on the Xingu.⁶¹⁹

In the social and environmental review of Belo Monte, Indigenous peoples indicated that compensation and environmental mitigation measures are not appropriate or sufficient to restore their ways of being on the land and the on the River. It is impossible to quantify the damage that Belo Monte had and will still have on Indigenous communities.⁶²⁰ The government decision to approve the dam consolidated the issues that FUNAI indicated in its reports as matters of compensation and mitigation to be addressed by Norte Energia through specific measures in the Indigenous communities.⁶²¹

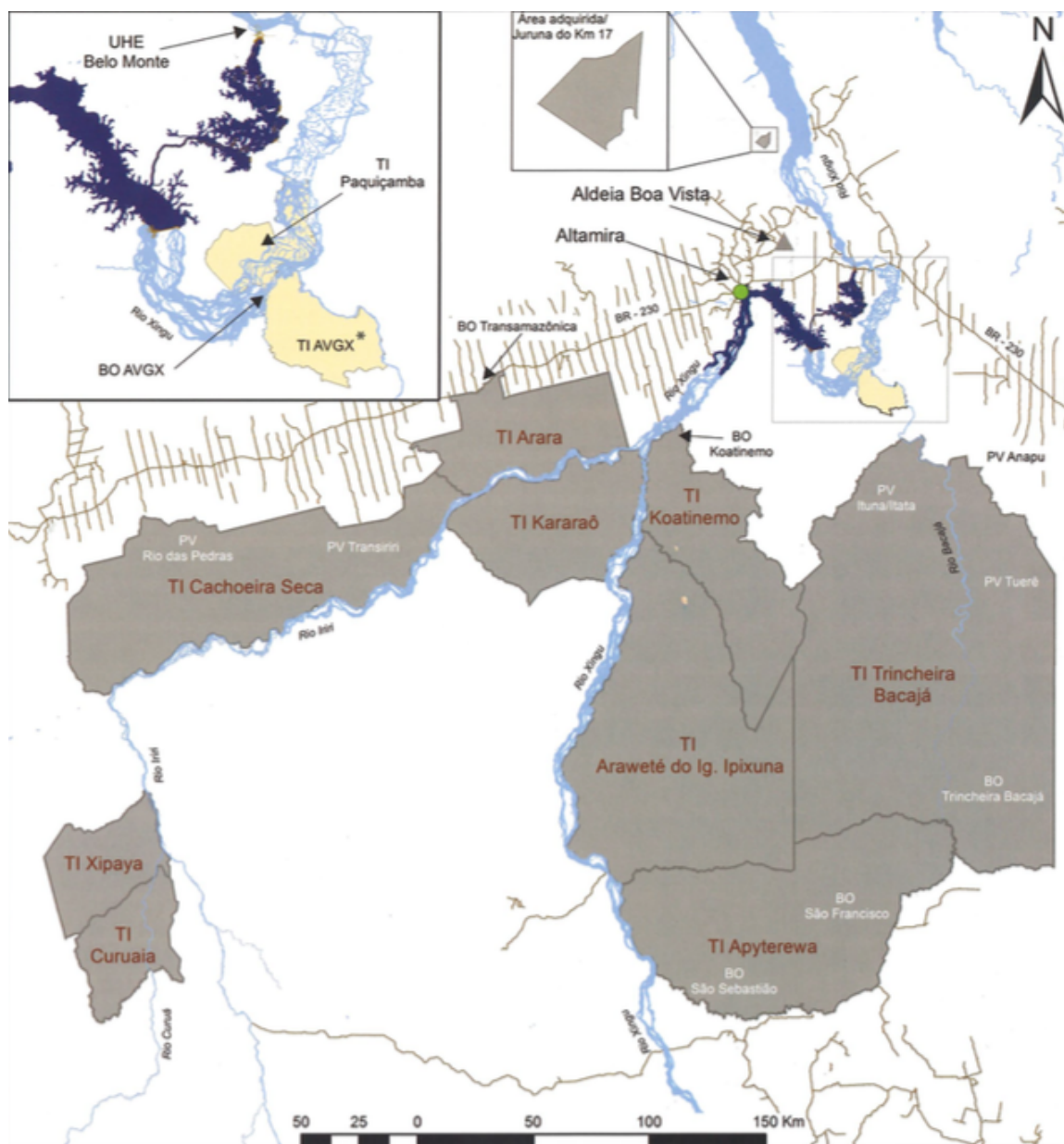
⁶¹⁷ *Ibid.* at 50, 75.

⁶¹⁸ Mello, “Se houvesse equidade”, *supra* note 528 at 142.

⁶¹⁹ *Ibid.* at 145.

⁶²⁰ *Ibid.* at 140, 141.

⁶²¹ *Belo Monte Report Basic Environmental Project Indigenous Component*, by Norte Energia (Brasília, 2016).



Map 2: Indigenous territories within the Area of Influence of the Belo Monte project. Source: Norte Energia.⁶²²

This introductory section described the background history of the approval of Belo Monte dam, including an overview of development policies in the Amazon region and the arguments employed by the government to gain support across Brazilian society, based on the national interest and energy security. The section also described the areas affected by the dam, the scope of the impacts on the watershed, and the impacts on Indigenous peoples' use of the River. The next section contains a summary of the Brazilian laws and policies on environmental decision-making and Indigenous rights in the country. And the following section offers a description of the regulatory process of Belo Monte, and how public

⁶²² *Ibid.* at 7.

interest lawyers articulated laws and rights in courts in face of the dam's impacts on Indigenous communities.

2. Overview of the Legal and Regulatory Regime Applied to the Belo Monte Case Study

This section of the chapter focuses on the Brazilian legal regime, particularly on the laws and policies on natural resources development and Indigenous rights. First, this section provides an overview of the division of powers and legal principles related to environmental decision-making and, second, a description of the most relevant laws and policies pertinent to the Belo Monte dam. Thirdly, the section contains an overview of Indigenous rights in the country, including the recognition and protection of traditional territories. Fourthly, the section comprises a description of the laws and policies specifically related to impact assessment and decision-making of large infrastructure projects such as the Belo Monte dam.

2.1. Constitutional division of powers and legal principles

Brazil is a civil law country with a legal system based on codes and laws enacted by the federal (Union), state (sub-national), and municipal levels of powers. Environmental matters are under shared jurisdiction among those levels of power. On the one hand, administrative authority for conducting environmental reviews of infrastructure projects is primarily a matter of concurrent jurisdiction but, depending on the scale and location of the impacts, specific laws may assign power to one level of government.⁶²³ On the other hand, the 1988 Federal Constitution assigns specific legislative authority exclusively to one of those levels of government.⁶²⁴ For energy production and waters the Union has exclusive authority to legislate.⁶²⁵ The Union also has exclusive power to legislate on matters related to Indigenous peoples and lands.⁶²⁶ In fact, the Constitution allocates all hydraulic energy potential and the lands traditionally occupied by Indigenous peoples as property of the Union.⁶²⁷ Because the assessment and decision-making for Belo Monte were of federal responsibility only, this chapter focuses on the federal level of the Brazilian law regulating the environment and environmental decision-making about infrastructure.

The 1988 Federal Constitution recognised principles that direct all aspects of the government's activities. Constitutional principles in the Brazilian legal system are legal norms to which all other laws must abide. In the absence or omission of laws, a judge must

⁶²³ This type of jurisdiction will be discussed later on this section. Jurisdiction for assessing Belo Monte project, for instance, is exclusive under the federal government.

⁶²⁴ *Constitution of the Federative Republic of Brazil*, *supra* note 201.

⁶²⁵ *Ibid.* at art. 22, IV.

⁶²⁶ *Ibid.* at art. 22, XIV.

⁶²⁷ *Ibid.* at art. 20, VIII, XI.

decide based on legal principles.⁶²⁸ Legal principles realize specific functions in the legal system: a) Integrative, filling in lacunae in the law; b) interpretative, providing directions to the decision-maker; c) delimitative, limiting legislative and judicial actions; and d) foundational of the legal regime.⁶²⁹ If there is a conflict between principles and rules, the judge must apply the principle, because it binds all laws in the legal system. In case of conflict between principles, the judge must apply the principle that better protects human dignity.⁶³⁰

First, the constitutional principle of an ecologically balanced environment is expressed in the Brazilian Constitution in article 225: “Everyone has the right to an ecologically balanced environment, which is an asset of common use and essential to a healthy quality of life, and both the Government and the community have the duty to defend and preserve it for present and future generations.”⁶³¹ The ecologically balanced environment is both a constitutional principle and a right of all Brazilian people. Article 225 incorporated the ethics of intergenerational equity into the Brazilian system, instructing the current generation to promote environmental sustainability for the benefit of future generations.⁶³²

Second, the principle of ecologically balanced environment relates to the principle of sustainable development, which mandates that the environment must be an inherent part of the national development.⁶³³ Based on the principle of sustainable development, “the Brazilian National Policy on Environment will aim at harmonizing social and economic development with the preservation of the quality of the environment and ecological balance.”⁶³⁴

Third, the principle of mandated prior environmental impact assessment serves to ensure the effectiveness of the right to an ecologically balanced environment, as the government has the obligation to require, “in the manner prescribed by law, for the installation of works and activities which may potentially cause significant degradation of the environment, a prior environmental impact study, which shall be made public.”⁶³⁵ The 1988 Constitution was the first to mandate environmental impact assessment when there is the possibility of significant degradation.

⁶²⁸ Presidência da República, Brasília, 4 September 1942, Decreto Lei n. 4658 (Lei de Introdução as Normas do Direito Brasileiro), (1942) Planalto (Brazil) at art. 4.

⁶²⁹ Luís Paulo Sirvinskias, *Tutela Constitucional do Meio Ambiente* (São Paulo: Saraiva, 2010) at 178, 179.

⁶³⁰ Sirvinskias, *supra* note 629.

⁶³¹ *Constitution of the Federative Republic of Brazil*, *supra* note 201 at art. 225.

⁶³² Paulo Affonso Leme Machado, *Direito Ambiental Brasileiro*, 18th ed (São Paulo: Malheiros, 2010) at 136.

⁶³³ *Constitution of the Federative Republic of Brazil*, *supra* note 201 at art. 170, VI.

⁶³⁴ Congresso Nacional, Brasília, 31 August 1981, Lei da Política Nacional de Meio Ambiente, Lei n. 6.938, (1981) Planalto (Brazil). at art. 4. [Translation by the Author]. This Federal Law was partially altered by the Federal Laws 7.804 of 1989 and 8.028 of 1990.

⁶³⁵ *Constitution of the Federative Republic of Brazil*, *supra* note 201 at art. 225, para 1, IV.

Fourth, according to the constitutional principle of democratic participation, “[a]ll power emanates from the people, who exercise it by means of elected representatives or directly, as provided by this Constitution.”⁶³⁶ Citizens should be able to participate directly in the creation and execution of environmental policies and in environmental decision-making. In impact assessments, for instance, there should be public participation meetings.⁶³⁷ The Constitution provided for the possibility of judicial reviews aiming for the protection of the environment,⁶³⁸ as established in the 1988 Constitution.⁶³⁹

Finally, the constitutional principle of the dignity of the human person underlies all principles related to the environment,⁶⁴⁰ and is linked to the self-determination of Indigenous peoples, as defined in the ILO Convention 169,⁶⁴¹ which was incorporated into the Brazilian Law.⁶⁴²

In addition to its legal principles, the Brazilian legal system is comprised of statutes and regulations enacted by different levels of government, on environmental matters. The highest level is the Federal Constitution and its amendments.⁶⁴³ The second level refers to legislation enacted by the National Congress (Chamber of Deputies and the Senate, jointly) through a due legislative process.⁶⁴⁴ And the Brazilian Executive Branch (the Presidency) can enact decrees that regulate the legislation enacted by the Congress.⁶⁴⁵ Finally, certain administrative bodies can create policies, usually through Resolutions and Normative Instructions, to provide for more specific details on how to comply with laws, in agreement with those administrative bodies’ respective mandates.⁶⁴⁶ The following subsection contains examples of these laws and policies regarding environmental law.

2.2. Environmental laws

The Federal Law on National Policies for the Environment (PNMA) is the overarching law on environmental matters in Brazil.⁶⁴⁷ The law establishes the necessary regime for the

⁶³⁶ *Ibid.* at art. 1, single para.

⁶³⁷ CONAMA, Brasília, 19 December 1997, Resolução 237, (1997) MMA (Brazil) at art. 3.

⁶³⁸ Édis Milaré, *Direito do Ambiente. A Gestão Ambiental em Foco* (São Paulo: Revista dos Tribunais, 2007). at 186, 187.

⁶³⁹ See, e.g., art 129, III, of the *Constitution of the Federative Republic of Brazil*, *supra* note 201, which establishes the judicial action for the protection of diffuse interests and rights.

⁶⁴⁰ *Constitution of the Federative Republic of Brazil*, *supra* note 201 at art. 1, III.

⁶⁴¹ *International Labour Organisation Indigenous and Tribal Peoples Convention 169*, 27 June 1989, 1650 UNTS (Entered into force 5 September 1991).

⁶⁴² Presidência da República, Brasília, 5 November 2019, Decreto n. 10088, (2019) Planalto (Brazil).

⁶⁴³ *Constitution of the Federative Republic of Brazil*, *supra* note 201.

⁶⁴⁴ *Ibid.* at arts. 61, 65, 66.

⁶⁴⁵ *Ibid.* at art. 84, IV, a.

⁶⁴⁶ These administrative bodies are government branches, such as agencies or councils, responsible for developing and executing environmental policies.

⁶⁴⁷ *Lei da Política Nacional de Meio Ambiente, lei 6.938*, *supra* note 634.

application of environmental policies, including basic concepts, objectives, principles, guidelines, policy instruments, and responsible authorities.⁶⁴⁸ Some of the law's specific objectives are the reconciliation of social and economic development with the preservation of environmental quality; the establishment of criteria and standards for environmental protection and natural resources management; and the obligation to repair or compensate for pollution or degradation.⁶⁴⁹

The PNMA law also creates the National Environmental System (SISNAMA),⁶⁵⁰ which encompasses a number of institutions responsible for the fulfillment of the PNMA law's objectives. The Ministry of Environment is the central body in the administration of environmental policies. The Ministry encompasses the National Council for the Environment (CONAMA)⁶⁵¹ and the Brazilian Institute of Environment and Renewable Natural Resources (IBAMA).⁶⁵² Both CONAMA and IBAMA may enact specific rules regarding, for instance, standards for a healthy environment, standards for water quality, natural resources extraction, permits and licenses, protected areas, and impact assessments.⁶⁵³

The CONAMA is an advisory and deliberative Council with the purpose of assisting, researching, and proposing to the government, guidelines for public policies in environment and natural resources, and to deliberate, within its authority, about norms and standards consistent with an environment ecologically balanced and essential to a healthy quality of life.⁶⁵⁴ The IBAMA is the executive body under the Ministry of Environment responsible for the environmental and natural resource decision-making on projects with significant environmental impacts of national or regional (more than one state) scale.⁶⁵⁵

The PNMA law also establishes policy instruments for the fulfillment of the law's objectives. One of those instruments is the process of environmental and natural resource decision-making,⁶⁵⁶ which is a series of administrative procedures, in connection with each

⁶⁴⁸ Sirvinskas, *supra* note 629 at 182.

⁶⁴⁹ *Lei da Política Nacional de Meio Ambiente, lei 6.938, supra* note 634 at art. 4, I, III, VII.

⁶⁵⁰ In Portuguese, *Sistema Nacional de Meio Ambiente* (SISNAMA).

⁶⁵¹ In Portuguese, *Conselho Nacional do Meio Ambiente* (CONAMA).

⁶⁵² In Portuguese, *Instituto Brasileiro do Meio Ambiente e dos Recursos Naturais Renováveis* (IBAMA).

⁶⁵³ Milaré, *supra* note 638 at 327-335.

⁶⁵⁴ *Lei da Política Nacional de Meio Ambiente, lei 6.938, supra* note 634 at art. 6, II. The CONAMA is formed by representatives of municipalities, civil society, business entities, Federal and State Public Prosecution Services, Commission for the defense of consumers, and Commission of Environment and Minorities in the Chamber of Deputies in the Brazilian Congress.

⁶⁵⁵ *Ibid.* at art. 10, para. 4.

⁶⁵⁶ *Ibid.* at art. 9, IV. The process of assessing the impacts of a project and deciding whether to grant that project a licence is referred to in the Brazilian Law as *licenciamento socio-ambiental*. The term does not refer only to the act of granting a licence but to the whole process of deciding whether to grant a licence. The closest term to *licenciamento socio-ambiental* in the Canadian legal system is environmental or natural resource decision-making. In this dissertation, environmental or natural decision-making

other and based on legal requirements and standards. Through this process, the government authority (at the federal level, the IBAMA) may grant a licence for activities that potentially or effectively cause environmental degradation.⁶⁵⁷ Impact assessment is another instrument of the PNMA.⁶⁵⁸ Activities or projects that may cause significant negative impacts on the environment must undergo a process of impact assessment, through which the government authority reviews the environmental and social impact studies produced by the project proponent. The next subsection focuses on the Indigenous rights, which the government must comply with in all environmental management and decision-making activities. The following subsection offers a characterization of the Brazilian environmental and natural resource decision-making regulatory framework.

2.3. Indigenous rights

This section focuses on Indigenous rights affected by the impacts of hydropower projects on traditional Indigenous territories and their natural resources in Brazil. The country's civil law regime expresses Indigenous rights mostly through positivistic laws, such as the Federal Constitution, statutes, acts, and regulations.⁶⁵⁹ Even though Indigenous rights are broader than the ones directly related to land and natural resources,⁶⁶⁰ due to the nature of the effects of Belo Monte dam on Indigenous territories and communities, this section concentrates on rights to land and natural resources, as well as the right to participate in the process of decision-making of infrastructure projects that affect Indigenous lands and communities.⁶⁶¹ The interviews demonstrate, however, that those rights are in fact intertwined in the everyday life of communities.

refers to the process of *licenciamento socio-ambiental* in the Brazilian regime. The terms are used interchangeably.

⁶⁵⁷ Milaré, *supra* note 638 at 405.

⁶⁵⁸ *Lei da Política Nacional de Meio Ambiente, lei 6.938, supra* note 634 at art. 9, III. In the Brazilian regime, the term *avaliação de impacto socio ambiental* corresponds to the process of impact assessment in the Canadian regime. In the Brazilian impact assessment process, the proponent must produce two main documents – the *estudos de impacto ambiental* (EIA) and the *relatório de impacto ambiental* (RIMA), the latter being a simplified and more accessible version of the former. In this dissertation, the term environmental impact study corresponds to *estudos de impacto ambiental* in the Brazilian Law. The government reviews those documents to decide whether to authorize a project.

⁶⁵⁹ These written laws, however, have been contested and subject to different interpretations, depending on the government or industry interests into play in development policies and proposals, as shown later on this chapter.

⁶⁶⁰ Other rights refer to access to health care and education, for instance. It does not mean that these rights are detached from the relationship of Indigenous peoples to their traditional lands. But they have a less direct relationship (at least from the perspective of the state law) with the effects of Belo Monte dam and its process of decision-making. However, the research participants did mention some of the project's effects on health and educational conditions in their communities.

⁶⁶¹ Even though this dissertation focuses on the rights of Indigenous peoples as formalized by the state, I acknowledge that Indigenous peoples living in the Xingu River watershed have their own legal orders based on their traditions. Some of the Indigenous research participants touched briefly on those traditions and laws, as I describe in the third section of this chapter.

Before the Federal Constitution of 1988, the Brazilian laws and policies related to Indigenous peoples focused on assimilating them into mainstream society.⁶⁶² Four of the five prior Federal Constitutions (1934, 1946, 1967, 1969) established objectives for the assimilation of Indigenous peoples (*silvícolas*)⁶⁶³ into the national society.⁶⁶⁴ The *Brazilian Indian Act, 1973*,⁶⁶⁵ outlined the ‘ideal’ process of assimilation of Indigenous peoples into the mainstream society, a continuum process initiated with isolated peoples, to peoples in process of integration, and then completely integrated into society.⁶⁶⁶ With the 1988 Federal Constitution, government assimilation policies are officially no longer part of the Brazilian regime, as Indigenous peoples gained recognition of their right to being and living distinctively from a ‘national identity.’⁶⁶⁷ The new Constitution incorporated the principle of a pluri-ethnic state,⁶⁶⁸ based on the acknowledgement that there are different groups, with social, cultural, and legal traditions, living within the same national territory.⁶⁶⁹

As a consequence, and based on the understanding that Indigenous peoples have a distinct and ancient relationship with their traditional territories, the 1988 Federal Constitution recognises Indigenous territorial rights to the lands they occupy.⁶⁷⁰ Even though the relationship of each Indigenous group with the land is different, the Brazilian Law acknowledges that Indigenous peoples relate to the land in fundamentally distinctive ways

⁶⁶² See, e.g., Tracy Devine Guzmán, *Native and National in Brazil. Indigeneity After Independence* (Chapel Hill: The University of North Carolina Press, 2013).

⁶⁶³ This was a term used in the legislation before the Federal Constitution of 1988. The closest translation of *silvícola* to English would be “people of the forest.” The terms *índio* (indian) or *povos indígenas* (indigenous peoples) or *povos originários* (original peoples) are the most common in recent laws.

⁶⁶⁴ Samia Roges Jordy Barbieri, *Os Direitos Constitucionais dos Índios e o Direito à Diferença, Face ao Princípio da Dignidade da Pessoa Humana* (Coimbra: Almedina, 2008) at 50.

⁶⁶⁵ *Congresso Nacional, Brasília, 19 December 1973, Lei 6001 (Estatuto do Índio), (1973) Planalto (Brazil)*, *supra* note 567. The Indian Act is still valid law; however, the specific provisions of the Act that contradict the 1988 Federal Constitution were invalidated.

⁶⁶⁶ *Ibid.* at art. 4.

⁶⁶⁷ Devine Guzmán, *supra* note 662.

⁶⁶⁸ The notion of pluri-ethnicity, however, does not ensure the necessary legal and political pluralism to transform positivist laws into social practices and government policies, such as environmental impact assessment. There is not a robust discussion, in the National Congress, whether Indigenous peoples hold jurisdiction over their territories, whether they should be able to deliberate, according to their governance systems, about issues of their interest. See Squeff, *supra* note 528 at 53.

⁶⁶⁹ *Ibid*; Elizabeth Allen, “Brazil: Indians and the New Constitution” (1989) 11:4 Third World Quarterly 148–165. With the end of the military regime, in 1985, Indigenous movements, mostly represented by the Union of Indigenous Nations (founded in 1980), started to mobilize and pressure the new Constituent Assembly that would form the 1988 Federal Constitution. Indigenous movements had an important role in the inclusion of the principle of the pluri-ethnic state in the Constitution. The novelty came in a time when many of the Latin American countries enacted new constitutions that included human rights to Indigenous peoples.

⁶⁷⁰ *Constitution of the Federative Republic of Brazil*, *supra* note 201 at art. 231.

in comparison to the conventional capitalist mode of extraction and production.⁶⁷¹ For Indigenous peoples, the value of the land goes beyond mere individual property. It is the basis of their livelihood, family relations, cultures, and spirituality.⁶⁷² Indigenous peoples have, therefore, a constitutional collective right to use the land and natural resources for their well being, according to their traditions, uses, beliefs, and practices.⁶⁷³ This right is based on Indigenous peoples' historical occupation of the land regardless of whether state law has yet formalized that occupation.⁶⁷⁴

According to the 1988 Constitution, Indigenous lands are property of the Union and ownership of Indigenous peoples.⁶⁷⁵ The title to federal lands destined to Indigenous reserves is vested with the Union and Indigenous peoples have the right to use and occupy those lands. Indigenous right to land is not a private right to ownership but a special and collective tenure right in recognition of Indigenous peoples' occupation, by present generations and by their ancestors, for time immemorial.⁶⁷⁶ The Brazilian Law prohibits any commercial transaction of those lands, as well as the extraction of natural resources, and the development of agriculture or livestock rearing by non-Indigenous peoples.⁶⁷⁷ Rights to land, thus, create the state's responsibility to demarcate and protect those areas against invasions and illegal natural resource extraction and development, a responsibility that stems from the state's fiduciary duty towards Indigenous peoples.⁶⁷⁸

Demarcation is the state act that defines the limits of an Indigenous territory, based on specialized studies to identify the area and their natural boundaries, through cartographic and historical documents.⁶⁷⁹ After the Ministry of Justice consents with the identification

⁶⁷¹ See, e.g., a description of the importance of the land for the Baniwa people, in Brazil: Admbaniwa, "A relação dos povos indígenas com a terra", (5 April 2017), *Blog do Povo Baniwa* (blog), online: <<https://walimanai.wordpress.com/2017/04/05/a-relacao-dos-povos-indigenas-com-a-terra/>>.

⁶⁷² Luiz Fernando Villares, *Direito e Povos Indígenas* (Curitiba: Juruá, 2013) at 113.

⁶⁷³ *Constitution of the Federative Republic of Brazil*, *supra* note 201 at art. 231.

⁶⁷⁴ Villares, *supra* note 672 at 105. The *Raposa do Sol* case, in the Brazilian Supreme Court, established important precedent in this aspect. See Deborah Duprat, "O Marco Temporal de 5 de Outubro de 1988: TI Limão Verde" in Manuela Carneiro da Cunha & Samuel Barbosa, eds, *Direitos dos Povos Indígenas em Disputa* (São Paulo: UNESP, 2018) 38.

⁶⁷⁵ *Constitution of the Federative Republic of Brazil*, *supra* note 201 at art. 20, XI. Indigenous lands are subject to a special tenure regime. They are property of the federal government but their occupation and use are legally ensured to Indigenous communities.

⁶⁷⁶ Villares, *supra* note 672 at 110.

⁶⁷⁷ *Estatuto do Índio, Lei 6001*, *supra* note 567 at art. 18.

⁶⁷⁸ *Ibid.* at art. 19.

⁶⁷⁹ This process is conducted by FUNAI, who forwards its conclusions and recommendations to the Ministry of Justice for their decision. Part of the Brazilian Congress has been making efforts to weaken FUNAI's role in demarcation by proposing an amendment to the Constitution (Constitutional Amendment proposal 215), so that the Congress would be responsible for demarcations. The president elected in 2018, Jair Bolsonaro, in his first day in the presidency, fast-tracked the weakening of FUNAI by enacting a temporary executive order transferring the powers to demarcate Indigenous traditional lands from FUNAI to the Ministry of Agriculture. The president has also announced that he will not be authorizing any demarcation during his mandate. Andreia Verdélia, "Bolsonaro says he will do no indigenous land demarcation", *Agência Brasil* (16 August 2019), online:

of the area, the Brazilian President sanctions the demarcation procedure, through a presidential decree.⁶⁸⁰ These recognised territories are similar to Indigenous reserves, in the sense that demarcated territories do not necessarily represent the integrity of traditional territories that Indigenous communities have historically occupied. To comply with constitutional requirements, the Union should have concluded the demarcation of Indigenous lands within five years of the promulgation of the 1988 Federal Constitution, therefore by 1993.⁶⁸¹ Non-compliance by the Union, however, does not affect or diminish Indigenous peoples' rights to the demarcation of their lands today. It is crucial to emphasize that demarcation is the recognition of an existing inherent right, as defined by the 1988 Federal Constitution and by the *Brazilian Indian Act*, but the right to traditional land is not at all dependent upon demarcation.⁶⁸² Nevertheless, decisions by the Federal Supreme Court have weakened this right and violated the Constitution by affirming that the date of the 1988 Federal Constitution is a criterion by which to identify whether Indigenous communities have the right to a territory. If an Indigenous community manifestly occupied a certain area by October 1988 that community could have their right to land recognised.⁶⁸³

Although Indigenous peoples have a constitutional right to use lands and natural resources according to their traditions, the state can authorize certain natural resource development, especially mining and hydropower, in Indigenous traditional territories or areas that affect Indigenous communities. The National Congress is responsible for granting these authorizations, "after hearing the affected communities."⁶⁸⁴ The 1988 Constitution does not clarify, however, what "hearing" means in practice, but most scholars have understood that it implies a process of consultation with Indigenous communities.⁶⁸⁵ The ratification of ILO Convention 169 and its incorporation into the Brazilian law provided more details on the legal requirement for consultation.⁶⁸⁶ Indigenous peoples have the right to participate in the use, management and conservation of natural resources.⁶⁸⁷ More specifically, the state must consult with Indigenous peoples in the licensing of mining and hydropower proposals: "In cases in which the state retains the ownership of mineral or sub-surface resources or rights to other resources pertaining to lands, governments shall establish or maintain procedures through which they shall consult these peoples."⁶⁸⁸ At the UN General Assembly, Brazil has manifested its approval of UNDRIP, which affirms

<<https://agenciabrasil.ebc.com.br/en/politica/noticia/2019-08/bolsonaro-says-he-will-do-no-indigenous-land-demarcation>>.

⁶⁸⁰ Presidência da República, Brasília, 8 January 1996, Decreto n.1775 (1996) Planalto (Brazil).

⁶⁸¹ *Constitution of the Federative Republic of Brazil*, *supra* note 201 at art. 67 of the Temporary Constitutional Provisions Act.

⁶⁸² *Ibid*; *Estatuto do Índio, Lei 6001*, *supra* note 567 at art. 25.

⁶⁸³ José Afonso da Silva, "Parecer" in Samuel Barbosa & Manuela Carneiro da Cunha, eds, *Direitos dos Povos Indígenas em Disputa no STF* (São Paulo: UNESP, 2018) 17.

⁶⁸⁴ *Constitution of the Federative Republic of Brazil*, *supra* note 201 at art. 231.

⁶⁸⁵ See, e.g., Villares, *supra* note 672 at 225.

⁶⁸⁶ *Decreto 10088*, *supra* note 642; *Indigenous and Tribal Peoples Convention, 169*, *supra* note 641.

⁶⁸⁷ *Indigenous and Tribal Peoples Convention, 169*, *supra* note 641 at art. 15.1.

⁶⁸⁸ *Ibid.* at art. 15.2

Indigenous peoples' right to self-determination, participation in decision-making that would affect their rights, and to own, use, and control their lands.⁶⁸⁹ However, Brazil has never incorporated UNDRIP into domestic law.⁶⁹⁰ For UNDRIP to be enforceable in Brazil, the country should have legislated a special statute that mandates how the country would implement the terms of UNDRIP in the domestic system. UNDRIP is not legally binding in Brazil, as the country has never legislated to integrate the terms of the Declaration into its domestic legal system. However, UNDRIP may be used in Brazilian law to guide laws and policies related to Indigenous peoples.

More recent regulation also commands that all environmental decision-making that affects Indigenous peoples and lands directly require consultation with affected communities.⁶⁹¹ The laws, however, do not provide a definition of 'lands directly affected.' Each project's terms of reference and environmental impact terms of reference will have their own classification depending on the features and significance of the impacts on the Indigenous territories.⁶⁹² FUNAI is legally responsible for conducting consultation with Indigenous peoples who live in traditional territories affected by infrastructure projects and ensuring that those projects' Basic Environmental Plans (PBA) address mitigation and compensation of adverse effects on Indigenous peoples.⁶⁹³

Therefore, the Brazilian Law recognizes Indigenous peoples' right of access and use of the traditional lands they occupy. This right also entails demarcation of their territories and protection against invasion and illegal resource extraction. Finally, Indigenous peoples have the right to participate in environmental decision-making that affects their lands and communities, particularly through consultation. Next sub-section contains a description of the regulatory framework for environmental decision-making about infrastructure projects. Further, next section focuses on the enforcement of Indigenous rights and environmental laws pertinent to the Belo Monte's review, including court cases put forward by the Federal Prosecution Service.

2.4. Federal impact assessment and environmental decision-making regulatory framework

The PNMA law introduced environmental impact assessment in the Brazilian legal regime in 1981. Since then, the 1988 Federal Constitution and other laws and policies have

⁶⁸⁹ UNDRIP, *supra* note 111 at arts. 2, 18, 26.

⁶⁹⁰ The country is well known for its history of non-compliance with international instruments, particularly in regards to Indigenous rights. See "Brazilian (non)Compliance with International Human Rights Norms. The case of indigenous peoples' rights" Max Laven, Radboud University Nijmegen (2014).

⁶⁹¹ Presidência da República, Brasília, 5 June 2012, Decreto n. 7747, (2012) Planalto (Brazil) at art. 3, XI.

⁶⁹² CONAMA, Brasília, 23 January 1986, Resolução n.01, (1986) MMA (Brazil) at art. 5.

⁶⁹³ FUNAI, Brasília, 27 March 2015, Instrução Normativa n. 02 (2015) Ministério da Justiça (Brazil).

established and reaffirmed requirements and criteria for environmental decision-making.⁶⁹⁴ A CONAMA resolution mandates that the

[L]ocation, construction, installation, expansion, modification, and operation of enterprises or natural resource developments, effectively or potentially, considered the cause of pollution, as well as enterprises capable, in any way, of causing environmental degradation, will depend on prior licencing from the responsible authority, in addition to other legally required licences.⁶⁹⁵

The term “licencing” (*licenciamento*), in Brazilian law as compared with the Canadian regime, best translates to environmental or natural resource decision-making. It comprises not only the issuing of a licence but also other procedures, such as the review of environmental and social impact studies, public participation activities such as public meetings, and analysis by the government authority.⁶⁹⁶

The environmental decision-making process for infrastructure projects in Brazil involves three main stages: Preliminary licence, installation licence, and operation licence. In all those stages the project proponent must comply with a series of conditions in order to be able to move on to the next stage.⁶⁹⁷ A preliminary licence does not grant the right for a company to build or to operate a business, but only to develop preliminary studies that will be used in the government review to show the viability of the project. An installation licence does not allow the operation of infrastructure or a project, but the construction of the building or industry plant in compliance with the conditions established by the government. A project only obtains an operation licence if all conditions from the previous stages are met.⁶⁹⁸ The purpose of that process is for the government to supposedly be able to better identify, evaluate, monitor, and mitigate environmental adverse effects in all stages of the process. All environmental licences in Brazil are valid for a certain time.⁶⁹⁹

⁶⁹⁴ In the National Congress, there are current proposals of legislation to streamline the impact assessment and decision-making process in the national level, making the process less rigorous, faster and less costly for the proponent. A bill to amend the federal Constitution, PEC 65/2012, proposes to alter article 225 of the Brazilian Constitution on environmental rights by downgrading impact assessment to a mere presentation of an Environmental Impact Study (EIS), without the need for review by the government. Another bill, PLS 654/2015, seeks to streamline development projects considered “strategic” for the development of the country (i.e., roads, waterways, railways and air transportation, ports and port facilities, energy plants, mining infrastructures, etc.). I will describe those proposals in more detail in chapter six of the dissertation.

⁶⁹⁵ Resolução CONAMA 237, *supra* note 637 at art. 2. [Translation by the author].

⁶⁹⁶ *Ibid.*

⁶⁹⁷ *Ibid.* at art. 20.

⁶⁹⁸ *Ibid.* at art 8.

⁶⁹⁹ A limit of five years for preliminary licences, six years installation licences, and ten years operation licences.

Before the deadline, the proponent must request a renewal of the licence to continue its project or activity.⁷⁰⁰

Within that tri-phase decision-making process, all infrastructure projects with significant adverse impacts on the environment require a review, through an impact assessment, and government approval. The 1988 Federal Constitution commands that the government must require, “in the manner prescribed by law, for the installation of works and activities which may potentially cause significant degradation of the environment, a prior environmental impact study, which shall be made public.”⁷⁰¹ A CONAMA regulation provides examples (although not an exhaustive list) of the kinds of activities that generate significant impacts on the environment and that, therefore, require impact assessment processes for the issuing of a license. The environmental decision-making of hydroelectric power projects of over ten megawatts, for instance, is one type of infrastructure that requires impact assessment.⁷⁰²

Among other matters, IBAMA is responsible for conducting the impact assessment of and deciding about activities with significant environmental adverse impacts at a regional (on more than one state) or national scale, or on Indigenous territories.⁷⁰³ The decision-making must consider the technical appraisal of other government authorities in the federal, state, and municipal levels.⁷⁰⁴ For instance, when the activity or project under review may affect Indigenous traditional territories, FUNAI must conduct their own review of the social and environmental impact studies.

The impact assessment process begins with IBAMA (or the responsible authority from another government agency or level of government) defining the social and environmental mitigation activities, documents, and studies that comprise the terms of reference for the impact assessment.⁷⁰⁵ The terms of reference for the project also provide criteria for how the environmental and social impact studies must define the areas directly affected and the areas within direct and indirect influence of the project.⁷⁰⁶ The project proponent may participate in this stage. Further, the company formally applies for a licence and submits the relevant documents, environmental plans, and studies. Then IBAMA analyses the

⁷⁰⁰ Milaré, *supra* note 638 at 410, 411.

⁷⁰¹ *Constitution of the Federative Republic of Brazil*, *supra* note 201 at art. 225, para 1, IV. [Translation by the author]. This provision does not mean that an impact assessment ends with the submission of impact studies but it is simply the first step of an environmental review.

⁷⁰² Resolução CONAMA 01, *supra* note 692 at art. 2, VII.

⁷⁰³ Resolução CONAMA 237, *supra* note 637 at art. 4; Presidência da República, Brasília, 22 April 2015, Decreto 8437, (2015) Planalto (Brasil) at art. 3, VII. This regulation establishes that decision-making about projects that would generate three hundred megawatts, or more, of electric energy is under federal jurisdiction.

⁷⁰⁴ Resolução CONAMA 237, *supra* note 637 at art. 4, para 1.

⁷⁰⁵ IBAMA, Brasília, 17 July 2008, Instrução Normativa n. 184, (2008) MMA (Brazil).

⁷⁰⁶ Resolução CONAMA 01, *supra* note 692 at art. 5, III. “The environmental impact studies must define the limits of the geographic area of influence of the project or directly affected by the project, always considering the watershed in which the project will be located.” [Translation by the author] However, there is not clear criteria for defining affected areas or areas of influence of a project.

materials, conducts technical site visits, and requests additional clarifications or documents from the proponent, when necessary. After, IBAMA conducts public participation activities such as public meetings and requests further clarifications and documents from the proponent, based on the discussions that took place in the public participation meetings. Finally, IBAMA and other government authorities that participate in the process, including FUNAI, must submit their final reports. Finally, IBAMA's director decides whether to authorize the project based on the analysis and reports by IBAMA's technical staff, as well as other agencies' reports, such as FUNAI's.⁷⁰⁷ In each of the three stages of the decision-making (preliminary, installation, and operation licences), the process must follow this order – submission of documents, clarification, public participation meetings, clarification, drafting of impact assessment reports (or reports that demonstrate the accomplishment of licence conditions), licence issuing (in case of approval).

In the application for an installation licence, the proponent of the project must submit to IBAMA the Basic Environmental Plan (PBA),⁷⁰⁸ the Environmental Compensation Plan (PCA)⁷⁰⁹ and, if necessary, the Plan for Restoration of Degraded Areas (PRAD)⁷¹⁰ and a Forest Inventory for clearing vegetation. Those documents must follow the criteria, methodology, and standards that IBAMA had established in the terms of reference and conditions in the preliminary licence.⁷¹¹ The PBA and the PCA are particularly relevant in the Belo Monte case. They contain the mitigation and compensation measures that the proponent company has to comply with in order to address the impacts identified in the social and environmental impact studies.⁷¹² In the Belo Monte case, the PBA contained a specific document, the PBA Indigenous Component (PBACI), establishing mitigation and compensation measures specially related to environmental and social impacts on Indigenous peoples and their traditional territories.⁷¹³ In all the decision-making process and its outcomes, the government and project proponent must comply with Indigenous rights. The figure below offers a description of the stages of the process of assessment and environmental decision-making conducted by IBAMA with participation of FUNAI. Finally, the next section provides a description of the regulatory review process of Belo

⁷⁰⁷ Resolução CONAMA 237, *supra* note 637 at art. 10.

⁷⁰⁸ In Portuguese, *Plano Básico Ambiental*.

⁷⁰⁹ In Portuguese, *Plano de Compensação Ambiental*.

⁷¹⁰ In Portuguese, *Plano de Recuperação de Áreas Degradadas*.

⁷¹¹ Instrução Normativa IBAMA 184, *supra* note 705 at art. 27.

⁷¹² *Ibid.*

⁷¹³ Norte Energia, *supra* note 621. In Portuguese, *Plano Básico Ambiental Componente Indígena*. Thirteen programs and eleven sub-programs form the PBACI to minimize or compensate for the impacts of the dam on approximately 400 Indigenous families. The programs address ethnic, social, educational, psychological, sanitation issues. Some of the programs are permanent in the communities and others temporary. The PBACI also contains measures related to the protection of Indigenous territories affected by Belo Monte against squatters. This plan is not a regulatory requirement, but was approved for the Belo Monte project, by discretion of FUNAI.

Monte and the role of public interest lawyers in enforcing environmental laws and Indigenous rights.

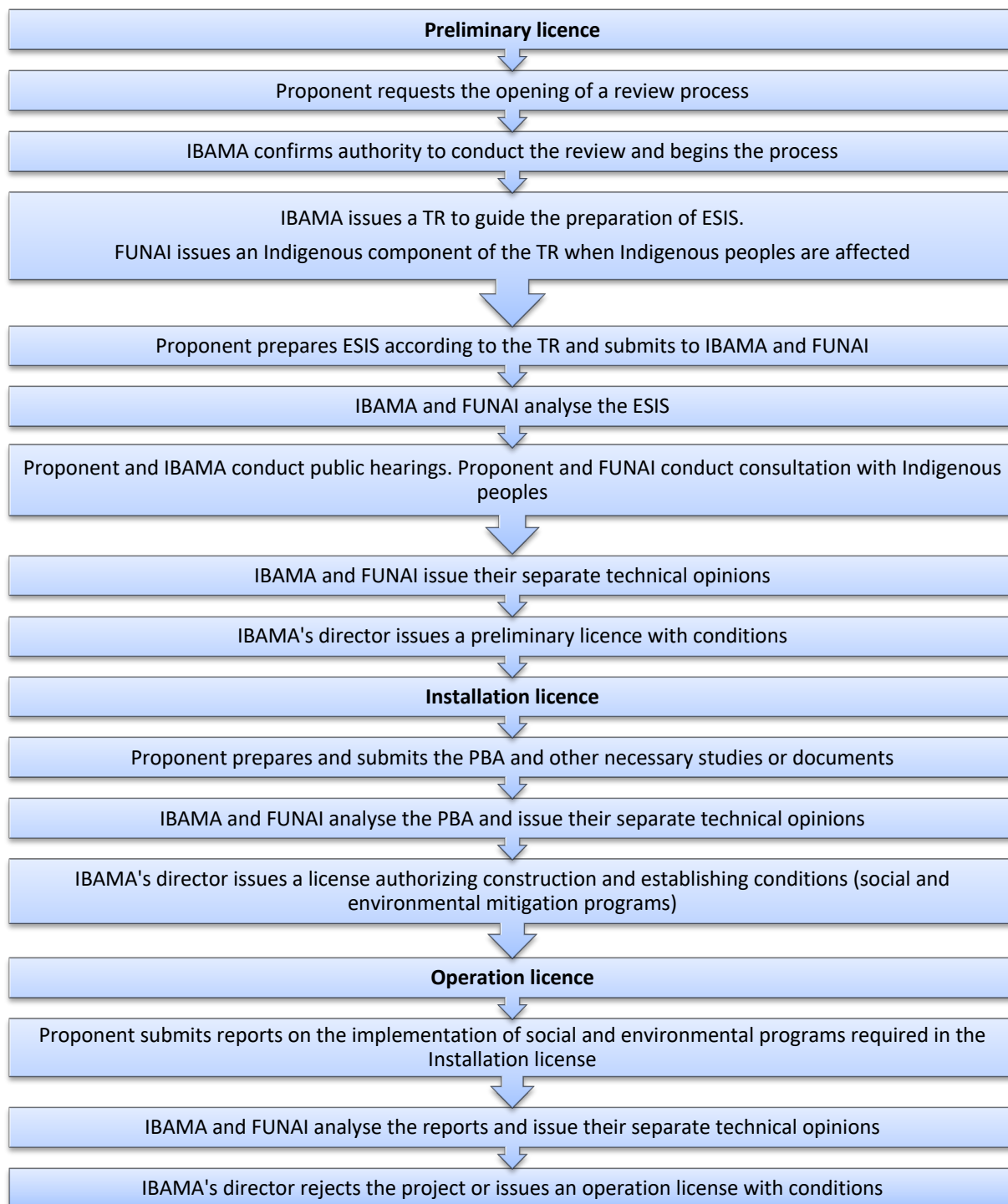


Figure 5: Environmental assessment and decision-making process conducted by IBAMA⁷¹⁴

⁷¹⁴ The author created the flowchart based on the information available at IBAMA, "Processo de Licenciamento", IBAMA (website), online: <<http://www.ibama.gov.br/empreendimentos-e-projetos/licenciamento-ambiental-processo-de-licenciamento>>.

3. Belo Monte Impact Assessment and Decision-making

This section provides a brief description of the Belo Monte impact assessment and decision-making process as it relates to the adverse effects on Indigenous peoples. As described in a previous section, the Brazilian law refers to a project's impact assessment and decision-making as a socio-environmental licencing process (*licenciamento socio-ambiental*). In the Brazilian legal regime, impact assessment and decision-making form the licencing process. Impact Assessment is specifically referred to as *Avaliação Socio-Ambiental* (in English, socio-environmental assessment). In accordance with the Brazilian legislation, the Belo Monte licencing process contained three stages: the preliminary, the installation, and the operation licence stages. The process was overall contentious and complex, requiring a period of approximately eight years to be completed.

The Federal Ministry of Environment issued the terms of reference for the project in December 2007, which was followed by Eletrobrás' environmental and social impact statement (ESIS) in 2009,⁷¹⁵ and a series of information requests and affidavits by the government agencies responsible for conducting the assessment (IBAMA and FUNAI), as well as specific licence requests related to activities necessary for the implementation of the project, and complementary information.⁷¹⁶ Differently from impact assessments in Canada and BC, the documents available in the IBAMA registry do not include submissions by the affected individuals and communities or concerned organizations.⁷¹⁷ Public participation meetings are the primary forum that individuals, organizations, and communities have available to express their concerns with the impacts of the project.

The Belo Monte's ESIS considered three Indigenous reserves within the direct area of influence of the project – the Paquiçamba, Arara da Volta Grande do Xingu, and Juruna Km17 (marked in yellow in Map 2). The other territories were considered to be in the indirect area of influence of the project (marked in brown in Map 2).⁷¹⁸ No Indigenous

⁷¹⁵ As explained, the Brazilian national company Eletrobrás conducted the first studies and then carried out a bid to form the Consortium that would operate the dam. Therefore, the proponent of the project shifted from Eletrobrás to Norte Energia Consortium.

⁷¹⁶ The set of documents that comprise the assessment and decision-making process of Belo Monte are available on the IBAMA online registry. However, some information regarding the project and its assessment is missing, such as the complete studies that form the ESIS. *Supra* note 190; For an independent evaluation and critique of the process, see *Painel de Especialistas. Análise Crítica do Estudo de Impacto Ambiental do Aproveitamento Hidrelétrico de Belo Monte*, Independent Expert Panel, by Sônia Maria Barbosa Magalhães Santos & Francisco del Moral Hernandez, Independent Expert Panel (Belém, PA, Brazil, 2009).

⁷¹⁷ There is one exception in the Belo Monte assessment, an independent panel of specialists, academics and scientists, who made a submission of 230 pages of an alternative study Santos & Hernandez, *supra* note 716. Nevertheless, there are no submissions by Indigenous governments or communities.

⁷¹⁸ Neither the Brazilian government nor Norte Energia revealed the criteria for defining the affected area, or area of direct influence. Similar to the Belo Monte process, in the regulatory process of Site C dam, BC Hydro refused to consider downstream impacts, for example, on the Mikisew Cree First

reserve, as defined by the state, is within the directly affected area of the project. However, the dam deeply affects Indigenous traditional territories and Indigenous peoples living in cities close to the dam (such as Altamira and Vitória do Xingu), and Indigenous groups that live in riparian areas along the Xingu River, outside the reserves. To inundate the areas along the Xingu River, to form the reservoir, the communities of *ribeirinhos*, which are traditional communities of people living by the banks of the River, some of them formed by Indigenous peoples that have left Indigenous reserves, were mostly relocated to parts of the Town of Altamira.⁷¹⁹

The Belo Monte ESIS contained a characterization of the Indigenous peoples living in the area of influence of the project, their use of the lands and rivers, their main source of livelihood, some aspects related to their cosmologies, the potential social and cultural impacts on Indigenous communities, as well as the plans, programs and environmental projects designed by the proponent to prevent, mitigate, and monitor the impacts.⁷²⁰ According to the proponent, the studies identified and evaluated how the biophysical and socio-cultural effects of the project disturbed the relationship of Indigenous peoples with natural resources, especially with the River, including the effects on communities' livelihood and pressures over Indigenous reserves.⁷²¹

Nevertheless, research indicates that those studies did not provide a comprehensive characterization of the impacts on Indigenous peoples and that the impact assessment undermined Indigenous peoples' concerns, which is particularly illustrated, for instance, by the lack of trustworthy information about the project to Indigenous communities in their own languages; by the lack of proper consultation proceedings through which the company and state could listen to Indigenous peoples' concerns and inputs; and the undermining of the number of Indigenous peoples living as *ribeirinhos*, outside of the reserves, who were not considered as part of the Indigenous population affected.⁷²²

The terms of reference for the Belo Monte's impact assessment required evidence that the proponent had presented the project and its respective impact assessment studies to Indigenous peoples, but did not mention the duty to consult with these communities.⁷²³ For the approval of Belo Monte, the government initially argued that it was unnecessary to

Nation, which was not considered within the area of direct influence of the dam. This decision regarding the Site C area of influence will be discussed in chapter five.

⁷¹⁹ Laura Castro-Díaz, Maria Claudia Lopez & Emilio Moran, "Gender-Differentiated Impacts of the Belo Monte Hydroelectric Dam on Downstream Fishers in the Brazilian Amazon" (2018) 46:3 Hum Ecol 411–422.

⁷²⁰ Eletrobrás, *supra* note 602 at vol. 35, page 12.

⁷²¹ *Ibid.* The information was collected through anthropological and demographic studies conducted by Eletrobrás and FUNAI, including meetings with the Indigenous communities.

⁷²² Mello, "Se houvesse equidade", *supra* note 528 at 132.

⁷²³ *Constitution of the Federative Republic of Brazil*, *supra* note 201 at art. 231, para 3. It determines that "Hydric resources, including energetic potentials, may only be exploited and mineral riches in Indian land may only be prospected and mined with the authorization of the National Congress, **after hearing the communities involved**, and the participation in the results of such mining shall be ensured to them, as set forth by law." [Emphasis added]

consult with Indigenous peoples, as neither the dam nor its reservoir (directly affected areas) would be located within their recognised territories.⁷²⁴ Even so, an affidavit from October 2009 indicated that agents of FUNAI conducted some consultation meetings in Indigenous communities, but that more meetings were necessary, with the presence of members of the National Congress, to achieve proper consultation.⁷²⁵ The issue was not addressed later in any affidavit or in the licence conditions. In an affidavit from November 2009, agents of the Brazilian Institute of Environment and Renewable Natural Resources (IBAMA),⁷²⁶ responsible for reviewing Belo Monte's ESIS, recommended not approving a preliminary licence without further studies and analysis.⁷²⁷ Nonetheless, in January 2010, the IBAMA's director issued a preliminary licence with forty conditions that Norte Energia had to fulfill.⁷²⁸

One of the conditions of the preliminary licence required Norte Energia to provide details regarding the measures to mitigate and compensate the impacts on Indigenous peoples and lands – measures that later formed the Basic Environmental Plan Indigenous Component (PBACI).⁷²⁹ To design the PBACI, Norte Energia argued that it invited two Indigenous leaders of each Indigenous village to go to Brasília for a few days and discuss the framework for the plan.⁷³⁰ Mitigation measures also included a Plan to Protect Indigenous Territories, with the involvement of government institutions. While the company was creating the PBACI, it proposed an Emergency Plan, a temporary measure to provide communities with commodities such as food, clothes, boats, and fuel, between 2010 and 2012.⁷³¹ Each Indigenous organization representing a village was entitled to receive R\$ 30,000 (approximately CAN\$ 10,000) per month in commodities. Community leaders

⁷²⁴ Jaichand & Sampaio, "Dam and Be Damned", *supra* note 66 at 443. In Brazilian law, there is no legal definition of directly and indirectly affected areas. Each project's impact assessment study delimitates those areas differently according to the biophysical characteristics of the region. For more details see Dayane Nayara Carvalho et al, "Critérios usados na definição de áreas de influências, impactos e programas ambientais em estudos de impacto ambiental de usinas hidrelétricas brasileiras" (2018) 37:3 UNESP, Geociências 639–653.

⁷²⁵ Fundação Nacional do Índio (FUNAI), *supra* note 540. As the data results demonstrate later in the chapter those meetings were not consultation at all, but merely a presentation of the project. FUNAI is the agency responsible for deciding whether consultation procedures are satisfactory to inform the decision-making. Ministério do Meio Ambiente, Brasília, 25 March 2015, Portaria Interministerial n. 60, (2015) MMA (Brazil); Instrução Normativa FUNAI 02/2015, *supra* note 693.

⁷²⁶ In Portuguese, *Instituto Brasileiro do Meio Ambiente e dos Recursos Naturais Renováveis* (IBAMA).

⁷²⁷ IBAMA, Brasília, 23 November 2009, Parecer Técnico 114 (2009) MMA (Brazil).

⁷²⁸ IBAMA, Brasília, 01 February 2010, Licença Prévia 342 (2010) MMA (Brazil).

⁷²⁹ In Portuguese, *Plano Básico Ambiental Componente Indígena*.

⁷³⁰ Norte Energia, *supra* note 621.

⁷³¹ Norte Energia, "Programa de Comunicação Indígena UHE Belo Monte. Boletim Informativo" (2011), *Norte Energia* (blog), online: <http://restrito.norteenergiasa.com.br/site/wp-content/uploads/2013/01/Boletim2_Plano-emergencial_Novembro2011_WEB.pdf>. The Emergency Plan is not a regulatory requirement. FUNAI discretionarily approved the Emergency Plan, as proposed by Norte Energia, to fulfill a gap created by the lack of the PBA Indigenous Component. The Emergency Plan was supposed to fulfill the needs of the communities considering the disruption of the dam on their livelihood. The plan was implemented while compensation and mitigation measures, such as projects to create alternative sources of income, fishing, agriculture, had not been in place.

regularly listed the types and amount of goods their communities required, and collected those goods with the company.⁷³² In the expectation to receive the benefit, Indigenous villages began to divide and the number of villages in the *Médio Xingu* climbed significantly.⁷³³ This was a deliberate strategy of the company to divide communities and facilitate the acceptance of the dam in the region.

In 2011, IBAMA's director issued an installation licence, despite technical advice by IBAMA's technical staff and officials against it.⁷³⁴ In September 2015, IBAMA technical staff issued a 242-page opinion listing conditions that were still pending, that Norte Energia had not fulfilled.⁷³⁵ The government and the company rushed with the process so that Belo Monte could be implemented fast with the least possible fulfillment of conditions. The 2015 IBAMA affidavit also demonstrate how overwhelming and unpredictable the effects of the dam were, affirming that the agency is unable to confirm the environmental viability of the project as described in the ESIS.⁷³⁶ Even so, in November 2015, IBAMA's director issued an operation licence, despite contrary arguments presented in the Brazilian courts, as will be explained in the next section.⁷³⁷

The disputes around the project, even among officials in the government agencies, reflect the extension and complexity of the adverse effects of the dam, particularly the effects on Indigenous communities. In the first stage of the project's decision-making, the preliminary licence, FUNAI reported ten impacts of the dam on Indigenous communities, considering seven of them as negative and three as positive impacts. Two of the impacts were considered irreversible, or immitigable, and six could be reversed in a long-term period through mitigation projects. In the second stage, the installation licence, FUNAI reported 29 impacts, being two of them positive and the others negative. Eleven negative impacts were considered immitigable. In the third stage, the operation licence, FUNAI predicted that all 66 impacts outlined in the ESIS would be negative to Indigenous peoples, being

⁷³² FUNAI, "Nota da Funai sobre a UHE Belo Monte", (5 July 2012), *Fundação Nacional do Índio* (blog), online: <<http://www.funai.gov.br/index.php/comunicacao/notas/2334-nota-da-funai-sobre-a-uhe-belo-monte>>.

⁷³³ Jane Felipe Beltrão, Assis da Costa Oliveira & Felício Pontes Jr, "Significados do direito à consulta: povos indígenas versus UHe Belo Monte" in João Pacheco de Oliveira & Clarice Cohn, eds, *Belo Monte e a Questão Indígena* (Brasília: ABA Publicações, 2014) 70 at 97. In 2014, the authors indicated that the number of villages increased from 24 to 36. However, some of this research's participants, in 2018, indicated that the numbers had climbed to approximately seventy villages, as will be described in the data results section of this chapter.

⁷³⁴ IBAMA, Brasília, 31 May 2011, Parecer Técnico 52 (2011) MMA (Brazil); IBAMA, Brasília, 1 June 2011, Licença de Instalação Belo Monte 795 (2011) MMA (Brazil). One of the conditions of the installation licence is the fulfillment of the Plan to Protect Indigenous Territories within the influence of Belo Monte dam. The Plan encompasses a set of actions to prevent and control invasion of Indigenous lands. Fundação Getúlio Vargas & Câmara Técnica de Monitoramento de Condicionantes, *Indicadores Belo Monte* (2014).

⁷³⁵ COHID & IBAMA, Brasília, 10 September 2015, Parecer técnico n.º 02001.003622/2015-08 (2015) MMA (Brazil).

⁷³⁶ Tribunal Regional Federal da 1a Região, Belém do Pará, 16 May 2013, Ministério Público Federal v ANEEL, (2013) TRF1 (Brazil).

⁷³⁷ Fearnside, "Brazil's Belo Monte Dam", *supra* note 543 at 174.

directly related to changes in the environmental flow of the Xingu River and its tributaries.⁷³⁸

The panel of specialists that submitted an alternative impact assessment study to IBAMA indicated that the methodology used by the proponent in its ESIS was unclear and inadequate. The ESIS, for instance, did not present clear criteria for the characterization of the affected areas and its population and undermined the extent of the population that is affected by the dam.⁷³⁹ The ESIS also disregarded the ways of knowing and the cosmologies of the Indigenous peoples of the Xingu watershed.⁷⁴⁰ The ESIS characterize expected changes in the biophysical and social and cultural dimensions but does not contain a description about how the interconnection between these dimensions affect the local population, especially their relationship with the waterways and the resources that they sustain.⁷⁴¹ In addition, the assessment did not include any evaluation of the cumulative impacts of the dam in combination with other components of the project, such as transmission lines and roads, nor the impacts of Belo Monte in combination with other developments in the region, especially hydroelectric projects.⁷⁴² The panel also concluded that the project, especially in combination with other dams in the region, contributes significantly to climate change through deforestation and the loss of biodiversity.⁷⁴³

This section provided a brief description of the impact assessment and decision-making process of the Belo Monte dam. The process presented controversies related to the scope, sufficiency and appropriateness of consultation proceedings with affected Indigenous peoples. Throughout the three stages of the licencing process, government agencies' staff and officials disagreed whether the state could issue a licence considering the lack of more in depth studies and the inability of the licence conditions to address social and environmental impacts. As part of the preliminary conditions, Norte Energia and FUNAI created a package of mitigation and compensation measures, specifically designed to address the impacts on Indigenous peoples, the PBACI, and an Emergency Plan, to address the immediate economic demands of Indigenous communities. But, as will be described further, these plans turned out to generate a damaging reliance on the resources and services from Norte Energia in Indigenous communities. Next section outlines, how public interest lawyers and the courts articulated and interpreted the application of laws and rights in the Belo Monte decision-making process.

⁷³⁸ IBAMA, *supra* note 727; Fundação Nacional do Índio (FUNAI), *supra* note 540 at 43. Examples of negative impacts identified by FUNAI and IBAMA are changes in the aquatic ecosystem, which would cause the extinction of some species of fish, and harm one of the main sources of food for Indigenous communities. Another negative impact would be the migration of non-Indigenous peoples to the region to explore the local natural resources, causing social pressures over Indigenous communities.

⁷³⁹ Santos & Hernandez, *supra* note 716 at 23-26, 40.

⁷⁴⁰ *Ibid.* at 39.

⁷⁴¹ *Ibid.* at 43, 44.

⁷⁴² *Ibid.* at 47.

⁷⁴³ *Ibid.* at 57.

4. Belo Monte in the Courts

The Belo Monte dam decision-making had significant repercussion in Brazilian courts. Public interest lawyers (prosecutors), members of the Brazilian Prosecution Service,⁷⁴⁴ initiated twenty-seven judicial reviews challenging the decisions to approve the project, its impacts on socio-ecological systems of the Xingu watershed, non-compliance with licence conditions, and lack of proper consultation with Indigenous communities.⁷⁴⁵ This section contains a description of the mandate of the Prosecution Service in enforcing environmental and Indigenous rights through the courts, and how the courts ruled on rights infringement challenges, specifically on three main aspects – consultation with Indigenous peoples, protection of Indigenous territories, and protection of Indigenous communities as distinctive ethnic groups.

According to the 1988 Brazilian Constitution, the Prosecution Service, which is known for monitoring compliance with the law, has the essential role of defending inalienable social and individual rights, the rule of law, and the democratic regime.⁷⁴⁶ To fulfill its role, the Prosecution Service can conduct civil investigations and file lawsuits to protect the environment and other diffuse and collective rights,⁷⁴⁷ such as Indigenous rights.⁷⁴⁸ Being autonomous from the structure of the state and independent from the executive, legislative, and judicial branches, the Prosecution Service cannot be dissolved or have its functions delegated to other institutions. The institution is divided into States and Union Services. The latter encompasses the Federal Prosecution Service, which is responsible for defending Indigenous rights, before federal judges, federal courts, and the Supreme Court. Prosecutors can also act preventively, outside the judiciary, by issuing recommendations, participating in public meetings, and proposing plea bargain agreements.⁷⁴⁹

Regarding issues with consultation with Indigenous peoples in the first stage of Belo Monte decision-making process, the Prosecution Service in Pará state obtained an injunction before the Federal Court of Pará suspending the preliminary licence to Belo Monte, as the National Congress had not consulted with Indigenous peoples before authorizing the start of the impact assessment process.⁷⁵⁰ However, in that same year, through a specific legal

⁷⁴⁴ In Portuguese, *Ministério Público*.

⁷⁴⁵ Ministério Público Federal, “Caso Belo Monte”, MPF (website), online: <<http://www.mpf.mp.br/pa/sala-de-imprensa/documentos/2017/caso-belo-monte>>.

⁷⁴⁶ *Constitution of the Federative Republic of Brazil*, *supra* note 201 at art. 127.

⁷⁴⁷ Diffuse rights are indivisible and of indeterminate persons, such as the right to an ecologically healthy environment. Collective interests are divisible and of determinate persons, such as children, elderly people, and traditional ethnic groups. Sirvinskis, *supra* note 629 at 143.

⁷⁴⁸ *Constitution of the Federative Republic of Brazil*, *supra* note 201 at art. 129.

⁷⁴⁹ Ministério Público Federal, “Sobre o MPF”, MPF (website), online: <<http://www.mpf.mp.br/o-mpf/sobre-o-mpf>>. Prosecutors are civil services officers accountable to the Prosecution Services Office. Plea bargain agreements are known in Brazilian law as *Termos de Ajuste de Conduta (TAC)*, through which wrongdoers assume responsibility for the results of their actions and commit to compensate or mitigate for the damages.

⁷⁵⁰ Tribunal Regional Federal da 1ª Região, Belém do Pará, 5 February 2007, Ministério Público Federal v IBAMA, (2007) TRF1 (Brazil); *Constitution of the Federative Republic of Brazil*, *supra* note 201; IBAMA,

mechanism, named “suspension of injunction”,⁷⁵¹ the Supreme Court of Brazil decided that the injunction compromised the national policy on energy, and was therefore offensive to the public order. Moreover, the Supreme Court held that the 1988 Constitution does not establish a particular moment in the environmental decision-making process when consultation with Indigenous peoples should take place. For that reason, consultation is not a pre-requisite for authorization by the Congress.⁷⁵²

The Supreme Court based its reasons on a Brazilian law that states that the Chief Justice that receives an appeal against an injunction against the government and its officials may suspend the execution of that injunction, when there is manifest public interest, to “prevent damage to the public order, health, security, and economy.”⁷⁵³ The Court applied this law many times during the Belo Monte decision-making process, when higher courts decided to overrule lower courts’ injunctions to paralyse the construction of the dam.

In a different court case,⁷⁵⁴ also addressing inadequate consultation with Indigenous communities, the Pará State Federal Court of Appeal, based on the Supreme Court decision, allowed consultation with Indigenous peoples to happen during the process of impact assessment (instead of prior to the impact assessment) to avoid compromising the national energy policy. The Court decided that consultation had occurred through meetings in the communities, conducted by FUNAI, and that, therefore, the Congress’ authorization to Belo Monte was constitutional and not in violation of the ILO Convention 169.⁷⁵⁵ It becomes clear, though, in the next section of the chapter, that the FUNAI consultation meetings were inappropriate and superficial, as explained by many research participants.

Regarding the non-compliance with licence conditions for the protection of Indigenous reserves against invasions, the Prosecution Service filed a new lawsuit requesting the court to declare the unviability of the Belo Monte, as the proponent had not complied with the conditions regarding the protection of Indigenous territories affected by the hydro project, as listed on the preliminary and installation licences. The Prosecution Service requested the suspension of the installation licence until the proponent had fulfilled its commitments. The Federal Court refused to grant an injunction suspending the licence, instead establishing penalties in case the proponent did not comply with conditions in a certain period of time. Granting an injunction would be an innocuous measure against Belo Monte, considering the consolidated understanding of the Supreme Court in favor of the

supra note 585 at 2.2.2. The Constitution establishes that the National Congress must conduct consultation with Indigenous peoples, and the Belo Monte term of reference confirms the requirement. But neither of them provides details on how or when consultation should take place.

⁷⁵¹ Supremo Tribunal Federal, Brasília, Brazil, 16 March 2007, Suspensão de Liminar 125, (2007) STF (Brazil).

⁷⁵² *Ibid.*

⁷⁵³ Congresso Nacional, Brasília, 30 June 1992, Lei Federal 8437, (1992) Planalto (Brasil). at art. 4 para 1.

⁷⁵⁴ Tribunal Regional Federal da 1a Região, Belém do Pará, 25 November 2011, Ministério Público Federal v Eletrobrás, (2011) TRF1 (Brazil).

⁷⁵⁵ *Ibid.*

application of the “suspension of injunction”.⁷⁵⁶ If other judges from federal courts decided in favour of granting injunctions to stop the construction of the dam, the companies and IBAMA’s lawyers could file recourse to the Federal Supreme Court, and those injunctions would certainly be suspended. Some scholars have argued that the judicial suspension of injunctions in favour of the Belo Monte dam were based on political motivations and demonstrated the government’s priority in developing national policies for “growth”, despite social and environmental struggles on a local scale.⁷⁵⁷

Regarding the state constitutional obligation to protect Indigenous communities as distinct ethnic groups, the Pará State Prosecution Service filed a lawsuit requesting recognition by the Federal Court that the implementation of the Belo Monte dam was an act of ethnocide by the Brazilian government and Norte Energia consortium as it destroyed social organizations, customs, languages, and traditions of affected Indigenous communities.⁷⁵⁸ The case prosecutor pointed to the numerous licence conditions regarding protection of Indigenous peoples and lands that the proponent did not comply with and requested the intervention of an independent auditor for the implementation of the mitigation measures of the PBACI.⁷⁵⁹

The prosecutor argued that the acts of ethnocide against Indigenous peoples were due to the lack of the government’s rigour in the impact assessment and decision-making process, which favoured economic interests. The government allowed for the delay and modification of the proponent’s obligations according to Norte Energia’s interests. Moreover, the government did not provide enough capacity and resources to FUNAI and IBAMA to enable them to remove invaders (individual settlers and small businesses) from Indigenous reserves, as part of the Plan to Protect Indigenous Territories within the influence of the dam. In the lawsuit, the prosecutor claimed that the Emergency Plan, run by Norte Energia in Indigenous reserves between 2010 and 2012, allowed for the indiscriminate distribution of industrialized goods, such as food, clothes, boats, among Indigenous populations, aiming at appeasing and silencing those communities.⁷⁶⁰ This lawsuit is still before the court (at the moment this dissertation is being completed).

⁷⁵⁶ Tribunal Regional Federal da 1a Região, Altamira, Pará, 26 May 2017, Ação Civil Pública Ministério Público Federal v Norte Energia, (2017) TRF1 (Brazil).

⁷⁵⁷ João Elbio de Oliveira Aquino Sequeira, “Estruturas de Oportunidade Legal dos movimentos anti-barragens no Pará / Structures of legal opportunity of the social movements against dams in Pará” (2017) 8:1 Revista Direito e Práxis 474–506. Even though the Brazilian legal system is founded on the democratic principle of the separation of powers, it is not unusual to see the influence of the executive branch’s interests on the higher levels of the judiciary power, including the Federal Supreme Court. See, e.g., Julio Cesar de Sá da Rocha & Ricardo Oliveira Rotondano, “Uma necessária limitação ao atual conceito de discricionariedade administrativa: fundamentos da teoria da discricionariedade mínima e aplicação no Direito Ambiental” (2011) 32:63 Seqüência: estudos jurídicos e políticos 101–132.

⁷⁵⁸ Tribunal Regional Federal da 1a Região, Altamira, Pará, 14 February 2015, Ministério Público Federal v União Federal, (2015) TRF1 (Brazil).

⁷⁵⁹ *Ibid.*

⁷⁶⁰ *Ibid.*

Internationally, to protect the rights of Indigenous communities, non-government organizations submitted a complaint to the Inter-American Commission on Human Rights (IACHR) of the Organization of American States (OAS).⁷⁶¹ In April 2011, IACHR requested that the Brazilian government stopped the licensing process of Belo Monte until the government and the proponent had made environmental and social impact studies available to Indigenous communities in an accessible and culturally adequate format, completed free, prior, and informed consultation with Indigenous peoples, recognised all traditional territories, and adopted sufficient measures to protect the life, health, and dignity of Indigenous communities affected by Belo Monte.⁷⁶² The Brazilian government responded by underscoring that it had followed all the domestic legal requirements to approve the project and that the dam was absolutely necessary for the development of the country.⁷⁶³ In November 2018, IACHR sent delegates to visit the region and once again advised the Brazilian government that it needed to address repeated violations of the rights of Indigenous communities.⁷⁶⁴

The Brazilian court decisions about Belo Monte reveal the weight given to political arguments related to national growth and energy security over Indigenous rights. However, in the decision-making about the dam, these arguments conflicted with many of the constitutional principles and laws and with constitutional rights of Indigenous peoples as characterized in the previous sections. Many research participants have demonstrated their disillusionment with the law failing to protect the rights of Indigenous communities. The next section of the chapter contains a description of the data results – semi-structured interviews with Indigenous communities leaders and members, FUNAI officials, and activists.

5. Data results

The literature review chapter of this dissertation focused on the scholarship of environmental justice as applied to environmental decision-making, and considered environmental justice critiques to environmental decision-making, summarizing principles by which to assess opportunities for Indigenous peoples' engagement and decision-making role in infrastructure projects. Those principles are used to analyse the research case studies of Belo Monte and Site C dams.

The principles of environmental justice are organized into three categories – recognition of affected groups, procedural justice, and distributional justice – and these categories are

⁷⁶¹ Inter-Am Comm HR, *supra* note 140 at 72.

⁷⁶² *Ibid.*

⁷⁶³ The Brazilian government responded through a media statement posted in the official website of the Ministry of External Relations. Ministério das Relações Exteriores do Governo do Brasil, *Nota 142: Solicitação da Comissão Interamericana de Direitos Humanos (CIDH) da OEA* (2011).

⁷⁶⁴ Interamerican Association for Environmental Defense, "Inter-American Commission urges Brazil to address damages to indigenous peoples caused by Belo Monte Dam", (13 November 2018), *Interamerican Association for Environmental Defense (AIDA)* (blog), online: <<https://aida-americas.org/en/press/inter-american-commission-urges-brazil-address-damages-to-indigenous-peoples-caused-by-belo-monte>>.

used to organize the data results from the interviews in the Xingu River Watershed. For this reason, a brief summary of the three main aspects of environmental justice and the principles under these aspects that were constructed through the literature review chapter are important to help situate the data results into the research framework.⁷⁶⁵

Regarding the recognition and special treatment of Indigenous peoples in EIA, achieving EJ would require:

- Compliance with the requirements of state laws and Indigenous rights;
- Opportunities for the establishment of government-to-government agreements about the management of traditional territories and natural resources;
- Representation of Indigenous peoples affected with representatives sharing equal decision-making power as the state representatives;
- Requirement for Free, Prior, and Informed Consent regarding the proposal of specific projects according to criteria established in government-to-government agreements.

In terms of procedural justice, considering equal decision-making power between the state and Indigenous governments, achieving EJ would require:

- Opportunity for joint design and management of EIA since its early stages throughout the process, with sufficient representation of Indigenous communities affected;
- Criteria for knowledge selection, significance determination, scoping, participation, and decision-making about proposed projects on traditional territories, based on agreement between the states and Indigenous peoples potentially affected;
- Access to ample information and provision for funding to Indigenous representatives, sufficient to design and manage EIA process and decision-making;
- Regulatory and policy options for Indigenous community-led assessments substituting state conducted EIA.

Finally, regarding distributional aspects, achieving EJ would require EIA to include:

- Socio-spatial evaluation of the allocation of adverse effects on Indigenous peoples, based on criteria defined in agreement between the state and Indigenous peoples affected;
- Cumulative impact assessments, with criteria defined in agreement between the state and Indigenous peoples affected;
- Priority to alternative development proposals that respect the values and interests of the Indigenous communities affected;
- Strategic Environmental Assessment, with criteria defined in agreement between the state and Indigenous peoples affected.

⁷⁶⁵ I describe the data and organize it according to my interpretation as a researcher. I consider this to be the first step of my analysis. The second step of the analysis is the comparison between the data related to the Belo Monte and the Site C case studies in chapter six of the dissertation.

5.1. Recognition aspects of environmental justice in impact assessment and decision-making

The information from the interviews guided my analysis of impact assessment reports, and mitigation projects' reports, as well as FUNAI and IBAMA affidavits, as a way to help me understand how the process unravelled on the local level. The recognition aspect of environmental justice, in this dissertation, means full acknowledgement of Indigenous groups affected by the dam. Through interviews with Indigenous leaders, Indigenous communities' officials and members, activists, and FUNAI officials, I was able to identify at least four aspects of recognition of Indigenous peoples in the Belo Monte case study. First, recognition involves compliance with the constitutional rights of Indigenous peoples to traditional territories and to be consulted regarding natural resource extraction and development, including recognition of Indigenous peoples' struggles to enforce their rights. Second, recognition involves acknowledgement of the social, cultural, and ecological burdens that infrastructure projects, such as dams, impose on Indigenous peoples and affect their livelihood and their relationship with the land and water bodies. Third, recognition requires meaningful consideration of Indigenous ways of living on the land and knowing, and how those ways differ from the overall principles of the Brazilian legal system. Finally, recognition centres on respect for Indigenous peoples' jurisdiction over their traditional territories.

5.1.1. Compliance with Constitutional rights

The Brazilian state has been infringing on Indigenous rights to demarcation and protection of traditional territories. As mentioned earlier in the chapter, the Brazilian government has not accomplished its constitutional obligation to demarcate all traditional territories in the country by 1993, and have been unable to protect already recognised Indigenous lands from illegal invasion and exploitation. One of the conditions of the Belo Monte dam preliminary licence was that the state and the proponent would ensure the demarcation and protection of territories (a duty actually imposed on the state by the Constitution). However, FUNAI affidavits declared that some of the Indigenous communities in the region have been constantly vulnerable to a high number of non-Indigenous squatters, in a region where conflicts for land are historically violent, and where Belo Monte would help increase pressure over those areas.⁷⁶⁶

Some research participants underscored the fact that the Brazilian government and Norte Energia have not been fulfilling their promises regarding the recognition and protection of Indigenous traditional territories from invasions, considering that that promise was the reason they agreed with the approval of the dam: "We gave in because the proposal was good. But we were misled. Norte Energia outsmarted us." (BM05) Indigenous peoples were relying on decision-making about Belo Monte to uphold their right to recognition and

⁷⁶⁶ Fundação Nacional do Índio (FUNAI), *supra* note 540; *UHE Belo Monte Componente Indígena Processo 08620.2339/00*, by FUNAI, Parecer no 01/CGGAM/2012 (Brasília, Brazil: Brazil, 2012). Squatters are usually individuals or small business that enter Indigenous territories to extract natural resources illegally. Some of the squatters were workers at the Belo Monte dam construction or migrants that decided to live in the region hoping to find jobs created indirectly by the hydro project.

protection of Indigenous traditional territories. This right is recognised in the Brazilian Law, through the Constitution of 1988, regardless of whether the Belo Monte dam licences included it as a condition. Therefore, the Brazilian state is not only infringing on licence conditions but on constitutional obligations to Indigenous peoples. People began to rely on the company instead of the state government hoping to see their rights respected.

One of FUNAI's affidavits for the Belo Monte dam's assessment acknowledged that local Indigenous communities had concerns about the possible increase of illegal occupation and resource extraction in their traditional territories once the dam had been built, and that government action was needed to deal with the issue. One Indigenous leader stated: "We don't have the means to take care of our lands (...) The government must commit to the law, we cannot keep exchanging bullets with invaders."⁷⁶⁷

One research participant that used to work for FUNAI explained that there was a government plan to protect Indigenous territories in the *Médio Xingu* River region. This plan was part of the conditions imposed in the preliminary license (2010) but was not fulfilled until after the final approval and construction of the dam (2017), and is not yet fully functioning. The purpose of the plan is to identify and monitor the areas that are being illegally logged by squatters and report it to IBAMA, the Federal Police, and the Public Prosecution Service.(BM07)

The recognition of Indigenous peoples' struggles to enforce their rights is an aspect of environmental justice in environmental assessments and decision-making. Many participants pointed to the inability, or the lack of will, by the state to guarantee compliance with environmental laws and uphold Indigenous rights. Claims that the state does not respect its own laws and that Indigenous peoples struggle to enforce their rights were common in the interviews. One Indigenous leader explained that their role in the community was to

[D]efend and *fight* for our right that is guaranteed by the Constitution, that we [community] be heard in decisions about infrastructure projects. My role is to *fight* for our right and demand from the institutions, [such as] Public Prosecution Service, FUNAI, and defend our community, to *fight* for what is best to our people.(BM14)⁷⁶⁸

Another Indigenous participant spoke about the frustration of not having rights recognised because they lived outside of demarcated Indigenous territories as they were Indigenous *ribeirinhos* living by the River. They express frustration in "fighting" for rights in a different legal framework than as community members living on reserve, who have rights to land: "Our right was divided – Indians in the tribe, Indians in the city, and *ribeirinho*

⁷⁶⁷ Fundação Nacional do Índio (FUNAI), *supra* note 540 at 73. [Translation by the author]. I use ellipsis in parenthesis to indicate that I have excluded particular parts of a participant's response because those parts may not be especially relevant to the point in discussion.

⁷⁶⁸ Emphasis added.

Indians [living by the river] We are all Indians. This is something they don't want to recognize.”(BM11)

In conclusion, the government of Brazil has been clearly not complying with state laws and constitutional Indigenous rights by evading from demarcating Indigenous territories and protecting them against invasion and illegal degradation.

5.1.2. Recognition of Indigenous traditions

The second aspect of recognition that research participants raised in the interviews is the need to make visible and acknowledge that adverse effects from the dam have impacts on Indigenous peoples that are distinct from other groups because of Indigenous ways of living from the lands, rivers, and forests. One Indigenous government official explained:

The river, woods, fish, hunting, are part of our life – they are the Xikrin culture. But this won't happen any more for some people. Some fish will be extinct; the river will end. These are lives that will be altered, paths altered, cultures that will need to be adapted.(BM13)

One chief from another Indigenous community stated: “This [dam] is killing our traditions, taking away our freedom. It's not just the river that is decreasing, all our traditions and leisure are impacted.”(BM05) Clearly, the acknowledgement of the importance of lands and rivers to Indigenous peoples is crucial for full recognition of the impacts of the dam on their daily lives.

Recognition of adverse effects on Indigenous communities involves identifying how state-led decision-making resulted in changes that harm Indigenous ways of living on the land. One Indigenous leader explained how some of the mitigation projects changed their community's ways of farming and compromised their ability to survive of the land:

We still farm but the farming activity program of PBA has taken away a lot of our traditional way of planting. We request and then we receive tractor trucks and equipment. [Our] period now is by the calendar and the clock of the white people. [Before], we oriented ourselves by the moon, our traditional way [of planting]. We got lost. We would orient ourselves well by the new moon; it would give strength for everything [we planted]. But we got lost in the white people's calendar. We planted, it grew, but it wouldn't give any fruit.(BM03)

This is one example of adverse effects on traditions that have a direct impact on the capacity of survival of Indigenous individuals and communities. Traditional ways are a cornerstone of Indigenous peoples' material and cultural survival. Therefore, they are central for realizing environmental justice.

The adverse effects of the dam also encompass psychological harms to the individuals and communities that were displaced. The spouse of an Indigenous fisher, a *ribeirinho* who

lived outside of the reserve, described their pain in leaving their house by the River and moving miles away into the city:

I stayed and I took out the last wooden board of my house, just as I had put the first one [when we built it]. Since it was hurting anyways, I wanted to see everything until the end of it. I didn't want to leave it behind. I wanted to finish it. I didn't want the tractor to destroy it.(BM16)

In conclusion, Indigenous traditions are not only a symbolic feature of Indigenous lives. Traditional practices provide food sources, spiritual and mental health through ceremonies and nurturing relationships, and sustain Indigenous peoples' identities throughout generations.

5.1.3. Indigenous traditions and state requirements

The third aspect of recognition refer to Indigenous ways of knowing and living on the land, substantially differing from the fundamentals of the Brazilian legal system. One Indigenous participant, who was also a FUNAI official, spoke about the conflict between Indigenous and western epistemologies and how this conflict compromised the assessment of the impact of the Belo Monte dam:

The impacts are not translatable. This makes things difficult for the researchers, technicians, practitioners, because a lot of it is fictitious, abstract [to them]. Then, they think of ways to remedy it but there's no solution (...) The culture teacher in the Indigenous cultures does not hold the same meaning [as in the western culture]. The singer does not hold the same translation. Traditional knowledge does not get the same recognition as in the western culture. If only the state could incorporate Indigenous culture without asking for western requirements...(BM07)

Regarding whether the environmental assessment applied traditional knowledge, one participant said that state and company's agents collected information, documented it, but it had no influence in the process, "it doesn't change anything."(BM11) There were no criteria for the impact assessment process to allow for meaningful application of traditional knowledge into the review and decision-making.

Regarding the challenges of translating Indigenous traditional knowledge to the state laws and policies, a local activist, allied to Indigenous peoples, explained that there are no hydrological studies that can measure all the impacts of the dam to Indigenous peoples, because studies are based on state laws, and state laws assume a certain universality that excludes Indigenous beliefs:

They [laws] do not consider the nature of the River, that it has life. It [the River] is a lot more than is written in the laws. For example, they [dams] destroy sacred places and this influences directly the life of the rivers and of the Indigenous peoples. The River has life, has magic. For example, the

big snake is not seen around anymore. With the River dolphin and the mother water, they have fundamental relationship with the sacred. We have been seeing children possessed and inexplicable deaths [in communities]. The shamans have reflected on this but are not considered (...) Laws don't see these things.(BM01)

Indigenous participants expressed frustration with mitigation projects that focused on assimilating Indigenous communities into western traditions of working on the land, and changing their way of living with the land, rivers, and forests: “The PBA was not designed for the Indians but for the white [people], to transform the Indigenous peoples into farmers, fishers, cocoa producers, meat producers. They did not think of projects to strengthen Indigenous peoples, respecting their culture and tradition.”(BM15) Mitigation projects played the role of colonizing tools to fit Indigenous peoples into the government's and industry's “development” vision for the region. Mitigation measures reproduced environmental injustices rather than correcting them.

When speaking of their displacement from the banks of the Xingu River to the city, an Indigenous *ribeirinho* interviewee, living outside of the reserve, explained that mitigation does not recognise their ways of living and their connection to the river: “The *ribeirinho* is like a plant when you change its place. You must handle it very gently and care for it, or it will die. It's easy to make plans with other peoples' lives. But it's difficult to know whether I will adapt to your plan.”(BM11) The company displaced *ribeirinhos* without proper care and strategies to ensure that they would maintain their traditions and their livelihood from the River.

Interviewees also expressed the importance of embracing the diversity among different Indigenous communities: “Everyone has a story to tell, everyone lives life in a different way. Some farm, some fish. But they want us all to be farmers. Our ways of life are diverse. This is the Indigenous tradition – we're all different.”(BM11) Forms of governance of Indigenous communities in the *Médio* Xingu River are also extremely diverse and do not always find correspondent features in state systems of governance. A FUNAI official spoke about some of the challenges of the government agency interacting with different Indigenous communities with diverse types of internal organization.

The Araweté people, for example, have no leadership, they are organized in small family groups. FUNAI asks to speak to the chief, but they don't have one, they don't want one. With others, such as the Kayapó people, the relationship is easier because there is a leadership. Then we make them all stay in one place, for our convenience, to do our work. Each community is organized differently. But we [FUNAI] do not respect it because we need one representative.(BM06)⁷⁶⁹

⁷⁶⁹ The interviewee used the term ‘Indigenous communities’; however, I understand their use of the term as actually referring to Indigenous nations, with specific systems of organization and governance. Indigenous nations and governments are not terms used often in Brazil. The term ‘community’

This speaks to the issue of sovereignty of Indigenous nations. The state government has difficulty in identifying and accessing Indigenous forms of leadership and organization and, for this reason, it imposes the state's criteria for interacting with Indigenous nations. This imposition hinders the possibility of a nation-to-nation relationship in environmental governance.

In regards to the recognition of Indigenous peoples' jurisdiction over their territory, some research participants expressed the desire for communities to have authority in decision-making about the dam. According to participants, Indigenous peoples should not be submissive to decisions made by the company or by the government.(BM12) And Indigenous peoples should not be bargaining and fighting for their rights: "The company has to accept what we want; it's our right."(BM03)

There is a sense among the interviewees that while Belo Monte is supposed to generate electricity for the whole country it will not benefit the local people. Some Indigenous leaders acknowledged, after the construction of the dam, that they could have affirmed their authority by requesting, for example, financial partnerships with the company: "We were also wrong, we should have required profit sharing to maintain our people."(BM05) Indigenous peoples were not given opportunities to form partnerships with the government and proponent that would be long-lasting and sustain their communities in the future.

One way that the dam approval affected Indigenous jurisdictions was by undermining Indigenous communities' authorities and institutions. The process of review of the Belo Monte dam affected communities' leadership and disturbed the process of deliberation among community members about whether to consent to proposed projects: "We used to present things to the community and they would accept. Now it's all done through Norte Energia and the community stands against me. It disrupted our morale."(BM05) One activist of an institution allied with Indigenous peoples affirmed: "These companies don't think about the small [people] but want them to depend on the company."(BM02)

Nevertheless, in a positive note, the struggles of Indigenous peoples to enforce their rights in relation to the construction of the Belo Monte dam have resulted in some communities organizing and strengthening their institutions in order to formally interact with state institutions, as one Indigenous interviewee stated: "Our village is starting to organize a council to fight in politics and to take the [community] demands to the city. The council has to listen to community [members] in order to be strong. The big branch is the general chief. The other chiefs and councillors take the community's concerns to them [the general chief]." (BM10) The recognition of Indigenous authorities and institutions is a primary aspect of jurisdiction over traditional territories, and consequently, a primary aspect of environmental justice in environmental and natural resource decision-making.

Recognising the inherent value of Indigenous peoples for the overall Brazilian society, their cultures, and their role in sustaining the forests, animals and waters, their inherent

performs a dual function by referring to a group of people that live together and a group under a certain system of governance.

rights to land and traditions, and gaining the support of non-Indigenous peoples in the country is also crucial for ensuring the recognition and exercise of Indigenous jurisdiction.⁷⁷⁰ Some of the new elected members of the national government have manifested their opinion that Indigenous peoples “occupy too much land” that should be used for development instead, while Indigenous peoples argue that they are the guardians of the forests.⁷⁷¹ One activist working in Indigenous causes pointed to the racism towards Indigenous peoples and argued, “Indigenous peoples lost their strength. [Members of] society do not see them as peoples that enrich this region, they make negative comments such as ‘Indians should die’ but they don’t know what harm it would be [for society].”(BM02)

In summary, the participants raised four main aspects of recognition: First, recognition of Indigenous rights, such as right to land and consultation, and the struggles to enforce rights; second, recognition of environmental, social, cultural adverse effects over Indigenous communities; third, recognition of the distinct relationship of Indigenous peoples with the land, rivers, and forests; and fourth, recognition of Indigenous jurisdiction over traditional territories. Interviewees reinforced Indigenous peoples’ requirement to have their cultures represented and respected in environmental decision-making. In this context, right to land is an important element to ensure the material and cultural survival of communities.

As I discuss in more detail in chapter six, the relationship of Indigenous communities with the areas they live, the rivers, fish, animals, is central to their livelihood and to their identity. The state decided to approve the Belo Monte dam in violation of this aspect of recognition, leaving to mitigation measures the role of later (and poorly) addressing disturbances on Indigenous communities’ traditional ways of living. Conversely, Indigenous ways of life should have been at the core of the decision-making. Mitigation and compensation created by Norte Energia and the state was in fact a tool of colonization by reinforcing communities dependence on industry’s economic power.

The next subsection addresses the procedural justice aspects of environmental justice for Indigenous peoples in the assessment and decision-making process for the Belo Monte dam according to the insights from interviews with research participants.

5.2. Procedural aspects of environmental justice in impact assessment and decision-making

The interviews with research participants raised a range of issues related to procedural justice in impact assessment and environmental decision-making about dams. This

⁷⁷⁰ Currently, the Brazilian government represents a threat to Indigenous peoples. The new President Jair Bolsonaro declared “the Brazilian cavalry was very incompetent. Competent, yes, was the American cavalry that decimated its Indians in the past and nowadays does not have this problem in their country.” Sam Cowie, “Jair Bolsonaro Praised the Genocide of Indigenous People. Now He’s Emboldening Attackers of Brazil’s Amazonian Communities.”, *The Intercept* (16 February 2019), online: <<https://theintercept.com/2019/02/16/brazil-bolsonaro-indigenous-land/>>.

⁷⁷¹ Dom Phillips, “Brazil: indigenous people rally in capital to protest against Bolsonaro onslaught”, *the Guardian* (April 2019), online: <<http://www.theguardian.com/world/2019/apr/24/brazil-indigenous-people-bolsonaro-protest>>.

subsection contains a discussion of four main aspects that I identified from the interviews, partially overlapping with aspects of recognition discussed in the previous section. The first aspect is consultation with Indigenous peoples, particularly the lack or inadequacy of consultation procedures for the approval of Belo Monte. The second aspect refers to the process of requiring mitigation and compensation measures, through the PBACI (Basic Environmental Plan Indigenous Component). This was an important issue for many of the interviewees, who raised concerns with the creation and implementation of the plan, as well as with the divisions that it caused among Indigenous communities. The third aspect of procedural justice relates to the lack of decision-making power of Indigenous communities in the face of projects such as Belo Monte. Finally, the fourth aspect identifies the distinction that many community members made between Indigenous and state governance systems, and the implications for environmental outcomes on traditional territories.

5.2.1. Consultation with Indigenous peoples

Regarding the first aspect of procedural justice, interviewees' positions about consultation with Indigenous peoples in Belo Monte assessment were that either no consultation happened at all or that consultation happened but was an incomplete process. Some participants pointed out that consultation meetings with Indigenous peoples took place inadequately after the Congress enacted the decree authorizing Belo Monte, (BM15) which indicates that the decision about the dam's approval had been taken before consultation. Research participants explained that Indigenous peoples were not properly consulted. "We were not consulted with, we were informed. They did a presentation of the project and said they consulted us in that meeting. There was no consultation." (BM17) One former FUNAI official stated that: "Meetings [with Indigenous peoples] were done in a questionable way. It was not consultation, but only preparation for a dialogue. It was not full consultation. It was not concluded." (BM07) Participants expected that consultation would take longer periods of time and provide for more opportunities of dialogue between communities, Norte Energia, and the government. (BM16) There was not enough time for communities to understand the project, discuss the project among its members, and draw their conclusions.

Participants expressed that Indigenous peoples expected consultation to entail a more comprehensive dialogue with government and the company. One Indigenous leader explained: "The problem was that they [FUNAI and IBAMA] took half of a conversation and transformed it into an entire conversation. What was hindering the approval [of the dam] was whether we had been consulted. This was the key to unlock the approval." (BM15) Norte Energia framed the information meetings, aimed at presenting the hydro project, as consultation meetings because accomplishing consultation was the key to legitimizing and legalizing the process. An affidavit from October 2009 indicated that agents of FUNAI conducted some consultation meetings in Indigenous communities, but that more meetings were necessary, with the presence of members of the National Congress, to achieve proper consultation, in compliance with the Constitution.⁷⁷²

⁷⁷² Fundação Nacional do Índio (FUNAI), *supra* note 540.

Following this affidavit, no other public documents related to the licencing of the Belo Monte dam addressed the issue of consultation proceedings with Indigenous communities, which indicates that no further meetings took place.

Research participants also stated that FUNAI lacked capacity, resources, and personnel to guarantee a proper process of consultation, and to oversee that the relationship of Norte Energia and Indigenous peoples complied with legal and policy requirements. “[The change needed is] to comply with the law! We [FUNAI] don’t comply either because we don’t have the resources [to fulfill our mandate]. According to the law, the process is wonderful. [But] the company grew in such a way that it has trouble understanding that it’s not the state!”(BM06) FUNAI, the government agency responsible for enforcing compliance with Indigenous rights, was unable to supervise all the activities by the company, including negotiations with Indigenous communities. The process of consultation lacked the character of dialogue that was expected by the communities.

5.2.2. Mitigation and compensation measures

Regarding the second aspect of procedural justice, the process of developing mitigation and compensation measures was often intermingled with aspects of consultation. In most interviews with Indigenous participants, when asked about how consultation with Indigenous communities took place, participants automatically changed focus to the PBACI. Participants often seemed to blend together issues of consultation with Indigenous peoples and issues of mitigation and compensation measures. One Indigenous leader explained that this blending of issues started to happen once Indigenous communities had accepted the fact that Belo Monte would be approved, regardless of their efforts to stop the project. “We realized that we wouldn’t have success in the fight against the government. We decided we would take as much as we could from the company in terms of mitigation and compensation (...) that was how Belo Monte happened for the Indigenous peoples.”(BM15)

To design the PBACI, Norte Energia and FUNAI invited two Indigenous leaders from each village to go to Brasilia for a few days and discuss the framework for the plan. While some of the Indigenous interviewees demonstrated contentment in having participated in this process,(BM05) others regret that their participation was tokenistic and that the document did not reflect their communities’ interests.(BM15) One Indigenous interviewee described one meeting in which the company was to assess who would receive a certain compensation benefit designed for fishers. “[Norte Energia representatives] asked who ate beef three times a week or more and who ate fish three times a week or more. Whoever ate beef three times a week was out of their social project [mitigation measure] (...) If you eat beef three times a week or more, for the company, you are not a fisher.”(BM12) Fishers who communicated that they ate beef often were refused as beneficiaries of mitigation measures for fishers. This episode shows some of the incongruities and recklessness in the process of creating compensation and mitigation measures, without accurate consideration for local peoples’ ways of life. This was a deliberate strategy on the part of the company.

Another Indigenous leader expressed disappointment in the lack of community participation in the development of compensation and mitigation measures:

The PBACI was developed by FUNAI and Norte Energia [the company] and they don't take into consideration what we expressed. It should be a more participatory process, listening, holding meetings for everyone to participate. I know it is a challenging process but there must be participation of the community, because we know what's best for us. Those people in Brasilia don't know anything about our lives. There should be participation, the government listens and fulfills the Constitution.(BM14)

As mentioned, the Emergency Plan aimed at providing some resources for Indigenous communities before the PBACI was implemented. Through the Emergency Plan, Norte Energia distributed R\$ 30,000 (approximately CAN\$10,000) per month, for two years, to each Indigenous village, as well as food, boats, and other goods. Most research participants refer to the Emergency Plan as the cause of division among the communities, as new villages became eligible to receive the benefit. Some participants indicated that the number of villages in the *Médio Xingu* climbed from twenty to approximately seventy in a few years.(BM07) One Indigenous leader described the process of division as a “massive disorganization”:

Everything worked well before – we used to get along well before the dam, all the nine peoples. We would have meetings to discuss Indigenous health, education, and rights. We didn't need much – one would bring pork, another one [would bring] deer, chicken, flour, and we would build the movement. Now, with access to particular benefits, and selling things, they began to fight individually. This is a very serious problem – that many do not realize the importance of being united, organized, to fight for our rights, territory, health and education. Many are only after what benefits them individually. And they think this is advantageous. But money goes away and problems stay.(BM13)

The Emergency Plan caused the proliferation of villages as well as a rupture in the coalition among Indigenous communities. For most Indigenous interviewees, this was the entryway for the project approval, the dismantling of Indigenous resistance:

Leaders have compromised their fight for [communities] rights because of this (...) Some Indigenous leaders kept 50% to 60% for themselves. But 100% is for the community. That's why there was so much division [among Indigenous peoples] (...) This is the impact: when a leader loses the essence of the fight for a cause that is not collective. This is the result of harassment. So they think the company is good.(BM07)

Another Indigenous interviewee explained: “The Emergency Plan was a ‘shut up’. They [Norte Energia] gave boats, motors, food, clothes, everything. It was a ‘shut up’ so the

Indians would think that they would keep having these things. It was a trickery to conquer [Indigenous peoples].” (BM14) In a region where the state is absent in enforcing the law and protecting Indigenous territories from invasion and environmental degradation, communities welcome material goods and benefits in order to ensure their survival. As discussed in the previous section, issues of mitigation and compensation have their roots in the lack of recognition of Indigenous peoples’ ways of life. Subsequently, non-recognition has concrete implications for the procedural aspects the decision-making.

Out of all the research participants, only one Indigenous leader demonstrated support for Belo Monte. The interviewee explained that ever since the first rumours about the project they had been in favour of the dam because it would bring development and jobs to the region. In one public meeting, the interviewee took the microphone and shouted, “ ‘I say yes to Belo Monte’, and then I said to Norte Energia, ‘but it has to be our way’.”(BM08) Since then, Norte Energia has been granting all the benefits that this interviewee requires for their community association. When asked whether they were consulted about the project, the research participant said that the only thing they received was a form with the list of goods that they would request from Norte Energia (through the Emergency Plan). The participant’s insights demonstrate once again the intermingling between consultation and access to mitigation/compensation measures.

5.2.3. Indigenous peoples’ lack of decision-making power

The third aspect of procedural justice addressed in the interviews is Indigenous peoples’ decision-making power. Some research participants drew a clear link between the recognition of traditional territories with aspects of Indigenous jurisdictional and decision-making authority. Interviewees expressed desire for their communities to have decision-making power in the process regarding Belo Monte, since they had inherent rights to govern their territories. “Everything is about the issue of territory (...) The conversation about a project should not be only within the government. The National Congress gives rights and takes rights away but they don’t have this power.”(BM11)

Even though the local teams of government institutions, such as FUNAI and IBAMA, were open to public participation, the agencies’ directors and the Minister of Environment, the ones that made the final decision, were not accessible to local communities.⁷⁷³ One Indigenous interviewee reacted to the lack of access to decision-makers:

We cannot reach the people with decision-making power, of Norte Energia and IBAMA. We can’t make it through our [Indigenous] institutions. But if you have a relationship with a Congressperson [Brazilian Nation Congress’ member] that respects your work, then you can get a meeting. For me, that is a disrespect to the decision-making process and to us that represent communities.(BM14)

⁷⁷³ Abers, Oliveira & Pereira, *supra* note 245.

Many interviewees showed frustration in not having their voices heard, in having to constantly demand from the government without seeing concrete results. Even though, Indigenous participants did not explicitly mention free, prior, and informed consent, they expressed the desire to have control over industrial activities and natural resources developments in their traditional territories. One Indigenous leader asked me to take their ‘voices’ outside of Brazil and make their perspectives available to a larger audience.(BM05)

There is a sense among industry and federal government officials in Brazil that compliance with Indigenous rights, including consultation, would slow down development.⁷⁷⁴ Scholars point out a controversy that, in contrast with Indigenous people’s long wait for laws to regulate rights provided by the Constitution, the decree authorizing the licensing of the Belo Monte project was approved in a record time of fifteen days in Congress.⁷⁷⁵ In 2015, IBAMA granted Belo Monte an operation licence despite the controversy regarding consultation and compliance with the conditions established in the preliminary and installation licences. Some research participants expressed their frustration about how rushed and reckless the whole decision-making process was and that they did not have enough opportunities to fully understand the impacts of the project on their lives and express their concerns.(BM16) “I think it was all too rushed (...) there are impacts that were not predicted and are yet unknown.”(BM17)

5.2.4. Indigenous governance systems

The fourth aspect of procedural justice in the decision-making about Belo Monte dam is the manifestation of Indigenous governance systems based on their relationship with the human and non-human community. Some of the research participants drew a distinction between Indigenous communities’ governance principles and state environmental decision-making. One interviewee in particular indicated that their community has norms of respect and care, as opposed to formal laws, and explained how these norms had a strong influence on the governance of their community:

We don’t have laws, we have family. We don’t impose anything because all we learn in our villages is transmitted from one generation to the next, without ever having to say ‘do this’(...) Here [outside the village] the law of the strongest is the rule... we don’t need laws [in the village]. There is hierarchy – to respect [all] from the child to the elder; to respect the woods, the river; to treat the forest as a mother. This creates harmony with everyone.(BM15)

Another participant explained how their ways of life were based on a close relationship with nature and with other members of the community. Having this relationship in

⁷⁷⁴ Philippe Hanna & Frank Vanclay, “Human rights, Indigenous peoples and the concept of Free, Prior and Informed Consent” (2013) 31:2 Impact Assessment and Project Appraisal 146–157.

⁷⁷⁵ Graeff, “Should We Adopt a Specific Regulation to Protect People That Are Displaced by Hydroelectric Projects”, *supra* note 551 at 273.

perspective, the interviewee drew a metaphor comparing the relationship between humans and nature with the relationship among trees. Trees, just like human individuals, need to be inserted in a community of natural beings to be able to survive. This perspective contrasts drastically with the perspective taken by the Brazilian government, which generated devastating outcomes.(BM11) Similarly, one activist reinforced the importance of traditional knowledge to ecological governance stating “Indigenous peoples know the rivers just like they know the palm of their hands. I wish the government listened to the Indigenous peoples; everything would be different.”(BM02)

When asked how their community would assess the possible impacts and make a decision about a natural resource development project, an Indigenous leader explained:

We depend on the things of nature, the natural resources, we survive from the natural resources, they are very important for our survival and for the culture of each [Indigenous] people. [If we were to decide] we would (...) find other ways of not damaging nature, the river – other ways to generate resource, energy, and revenue. Protect nature while collaborating.(BM13)

This Indigenous interviewee reflected their community’s interest in analysing possible partnerships with industry and the government, as long as the community had the right to make meaningful decisions about proposed projects affecting their territory.

The recognition of Indigenous governance systems, discussed in the previous section, has implications for the procedural aspects of the decision-making. Traditions are not only a symbol of a culture but the fundamentals of a governance system; and, therefore, determinant of the internal processes of decision-making used by a community.

5.2.5. Possible avenues and tools for dialogue between Indigenous communities and the state

The participants referred to a few tools that could contribute to a dialogue between communities and the state government. When asked about the possibility of communities developing their impact assessment studies, some interviewees mentioned this could be an instrument of dialogue between Indigenous communities and decision-makers. Some Indigenous leaders recognised the construction and incorporation of community assessments in state-led processes as a viable and empowering tool for Indigenous peoples.(BM03 and BM05) The interviewees saw community-led impact assessments as a way to integrate traditional knowledge and to reclaim Indigenous jurisdiction in environmental decision-making.

But not all interviewees agreed that communities would have the capacity to produce their studies and that the state government would meaningfully consider those studies. This uncertainty was shared especially by non-Indigenous participants. For those interviewees, Indigenous communities would need support to build technical capacity and have their knowledge translated. The member of an NGO that works closely with Indigenous peoples highlighted the importance of community-led studies because these were more likely to portray accurate data related to the impacts on Indigenous peoples: “It’s fundamental that

they [Indigenous peoples] associate with independent partners. All the environmental studies are currently produced by the proponent, so the data is manipulated.”(BM04) One FUNAI official answered: “In some cases they could do the studies, but the [power] relationship is asymmetric. They are able to do it, they know the impacts (...) but their knowledge would have to be translated.”(BM06) The opinion of these non-Indigenous participants, one NGO member and a government official, reflect a common colonizing idea that Indigenous peoples need ‘gateways’ to protect them from outsiders.

Another instrument for dialogue between communities and the state, mentioned by interviewees, were consultation protocols, which are documents in which each community establishes how state government and future project proponents must conduct consultation with that specific Indigenous community. One Indigenous leader explained that their community created a consultation protocol, which led to the state suspending the licence of one mining project, since consultation fell short on the community’s standards: “Our protocol has been recognized. Not FUNAI, not anyone else decides what we want because we have created our own law.”(BM17)

On the one hand, the idea of state laws incorporating manifestation of community laws that safeguard community’s interests regarding natural resource development projects was common among some participants: “Laws must change. The only way to empower indigenous peoples is change in the laws. I think Indigenous peoples should be able to establish the terms of this relationship, through a protocol, not through an instance, but a document validated by an Indigenous collective and not only by two [community] leaders.”(BM07)

On the other hand, another group of research participants argued that while Indigenous protocols for consultation might be helpful to ensure respect for communities’ interests, the Brazilian legal system already has the legal tools to guarantee respect for Indigenous peoples rights and interests. One Indigenous participant commented on communities’ protocols for consultation: “I think it’s useful, it’s great. But the right of the Indian should be safeguarded the way it’s in the Constitution.”(BM14) When asked about how they imagined a process of assessment and decision-making about dams in which Indigenous peoples had power to decide, one Indigenous leader answered: “Easy, it’s clear – respect what’s written in the law. We have the federal Constitution, the Indian Act, and [ILO] Convention 169. It’s only a matter of respecting the law, nothing more.”(BM15) For the participant, compliance with the state laws and policies should be sufficient to guarantee protection of Indigenous peoples’ rights.

Another instrument of dialogue between communities and the state mentioned by research participants, a tool that FUNAI and the company created through the Belo Monte decision-making process with Indigenous participation, is the Indigenous Management Committee (CGI) for the implementation of the PBACI. One Indigenous leader pointed to the committee as one possible tool to empower Indigenous governance, if it had decision-making power: “We used to have meetings of the CGI, leadership of communities. These had to be decisive and deliberative meetings, where we had decision-making power.”(BM17) One FUNAI official explained that the CGI discusses and tries to

implement the PBACI, but discussions end up being lost among individual demands for the company to fulfill its agreements with Indigenous communities.(BM06) CGI should have representation of Indigenous peoples with real decision-making power and dialogue in an equal basis with the company and government.

This subsection focused on the aspects of procedural justice regarding the process of impact assessment and decision-making about the Belo Monte dam. The research participants, first, raised issues of consultation with Indigenous peoples, which was not appropriately executed to ensure a true dialogue between Indigenous communities and government and industry. Second, interviewees discussed issues around the construction and implementation of mitigation and compensation measures. Third, interviews revealed Indigenous peoples' lack of decision-making power regarding the approval of Belo Monte. Fourth, research participants raised the importance of respecting Indigenous structures and systems of governance in state-led decision-making processes, in recognition that Indigenous peoples have a distinct and fundamental relationship with lands and rivers. Finally, some participants raised useful tools for a dialogue with industry and government, such as consultation protocols, community-led impact assessments, and management committees with Indigenous representation with decision-making power. The next subsection contains a description of the aspects of distributional justice in the Belo Monte case study.

5.3. Distributional aspects of environmental justice in impact assessment and decision-making

The distributional justice aspects of environmental justice relate to the fact that the construction and development of infrastructure projects, such as hydro dams, adversely and distinctly affect Indigenous peoples in comparison to other social groups. In the Belo Monte case study, it was possible to identify, from the interviews, three main aspects that refer to distributional justice issues. First, the destruction of the Xingu River, tributaries, and the fish caused extensive and deep impacts on Indigenous peoples' livelihood and cultures. Second, the Belo Monte dam triggered social problems that affected Indigenous lands, cultures, and health, such as the increase in consumption of industrialized products, alcohol, and drugs; the increase of land invasions caused by the influx of new migrants to the region; and intense agendas of visits to the city and meetings related to mitigation projects, which restricted time for acts of governance in the communities. Third, the interviewees indicated that the Brazilian government's vision of development for the region did not reflect Indigenous ideas of development.

The first aspect of distributional justice identified from the interviews was the range of adverse effects generated by the destruction of the Xingu River and its tributaries and the loss of fish. The damming of the Xingu River significantly changed the environmental flow of the watershed system by causing some rivers and streams to die and others to overflow periodically. These changes disturbed Indigenous communities that depend on the rivers to navigate to other areas by hampering navigability.(BM17) One Indigenous interviewee, whose territory is located by a tributary river that flows from the Xingu, explained how significantly the river has decreased: "For us [community], the River will dry up. Now in

the summer big boats don't get through(...) Our transportation now is by land; we don't sail anymore.”(BM13)

One FUNAI affidavit had indicated, during the impact assessment process of Belo Monte, how the changes in the environmental flow of the rivers would affect Indigenous peoples' cultures and livelihood. The affidavit mentions for instance the example of the Arara people:

According to the Arara people's view, all environmental changes also cause profound cosmological changes, forcing the spirits in the Xingu to search for new homes. The alteration of environmental flows will certainly cause these changes in the spiritual world (...) It is an important cultural impact, since the inappropriate management of the fish may lead to punishment by the Mother Water, as according to the Arara, the beasts will come out when they start changing the River. The Mother Water is responsible for the movements upstream and downstream, but she will search for another place if the River is disturbed. Then, fishing will be affected, and not only symbolically.⁷⁷⁶

This type of distributional justice issues overlap with the recognition of Indigenous communities' spirituality. For Indigenous peoples, there is no separation between spiritual and material adverse effects. For the state, the relationship with Mother Water, for instance may not be of substantial consequences for the communities' lives. But for Indigenous peoples, this relationship is elemental to the harms from the dam.

The changes in the Xingu River watershed caused decreases in fish populations and the extinction of some species of fish.(BM17) These changes had important impacts on Indigenous peoples' livelihoods that depend on fish as a central part of their diet and income. One Indigenous fisher explained how they have lost their occupation “Belo Monte came to take away our peace because we used to go fishing and, in four, five days, come back with 600 to 700 kilos of fish. Today we can't get 10 kilos. Today there is no means to survive. Fishing is not enough to pay the bills.”(BM12) Another interviewee stated “[w]e used to choose the [kind of] fish we wanted to eat, now we have to eat whatever we catch, or we go hungry.”(BM16)

An Indigenous participant expressed their disagreements with scientific assessments of the environmental flow and expressed concern with the decrease in fish for the material and cultural survival of their community:

Some fish will be extinct, the River will end (...) They run studies and say everything is normal. There is no way it is normal. Not enough space [in the River], not enough oxygen, the fish die (...) We depend on the natural things, natural resources, we survive out of the natural resources, [nature]

⁷⁷⁶ Fundação Nacional do Índio (FUNAI), *supra* note 540 at 51.

is very important for our livelihood, for the culture of each [Indigenous] people.(BM13)

The construction of the Belo Monte dam represented a great disturbance to the social-ecological systems that rely on the rivers. The spouse of one Indigenous fisher, whose family lived by the Xingu River, explained that the construction caused the earth to shake and illuminated the lands and rivers at night, which was atypical for people and animals: “When they started building the dam, you could feel the tremors, and there was a lot of light at night (...) you could not fish at night anymore there because the fish would see you first (...) It wouldn’t get dark anymore.”(BM16)

The second aspect of distributional justice identified in the interviews was the impacts of social factors on Indigenous peoples. Many research participants mentioned that the population increased in the region due to the migration of workers from other parts of the country. This influx of workers had specific adverse effects on Indigenous peoples and lands. One Indigenous interviewee explained: “Belo Monte brought many workers to the city [Altamira]. When Belo Monte was finished, people went to Indigenous lands. There are a lot of invasions.(...) This is the main concern of the Parakanã people, the land. On the land, we hunt to give food to our children. The land is our mother, the future of our children.”(BM10) Cases of invasion of Indigenous territory intensified, putting a strain on natural resources and escalating conflicts between squatters and community members, as well as contributing to social issues such as alcoholism, drug addiction, and sexual exploitation of vulnerable women within Indigenous communities. One Indigenous interviewee indicated:

Impacts come from everywhere. Invasions of our territory have increased, because of the high number of people coming for the dam. Then, loggers, miners, they all came to work on the dam, people from various states. It became crowded. The city and the region do not have the capacity to support all these people. It brought alcoholism and prostitution, with easy access to Indigenous peoples (...) even drugs.(BM13)

Indigenous leaders also showed concern for the fact that community members did not have time and desire to participate in their traditional governance practices anymore because they were visiting the city more often and participating in meetings with Norte Energia and its hired companies. “We used to have many ceremonies, traditional celebrations. There is no more time for that because there are a lot of [mitigation and compensation] projects happening [in the community]. There is no more time to celebrate.”(BM03) Some Indigenous interviewees mentioned their efforts to revitalize Indigenous traditional ceremonies as an important part of strengthening their identity and governance system.(BM14, BM15)

Belo Monte’s compensation and mitigation projects also caused negative effects on Indigenous peoples’ health. Many interviewees mentioned that the consumption of industrialized products from the Norte Energia Emergency Plan generated diseases, such as diabetes, gastritis, and high blood pressures within communities, as an Indigenous

community official explained: “People had access to a lot of sugar, soda, [canned] sardine, and preserved food. There was an increase in the number of gastritis, diabetes, many health issues related to these [compensation] projects, which were not properly done.”(BM13) This Indigenous interviewee decided to go to medical school to serve their community. The spouse of another Indigenous interviewee asked me if I could find them nursing books as they were preparing to begin a nursing program soon. The couple was concerned with the health of their community members.(BM03)

A spike in mental health issues was also a concern among the participants. Interviewees mentioned the disturbance in Indigenous communities’ relationship with the land and rivers, loss of traditional ways of living, and sometimes loss of their land as factors that contributed to mental health illness. One interviewee stated, “I had depression and it worsened, I was desperate (...) I live under medication [now]. Until now I have the memory that it has hurt me a lot. I felt expelled and discriminated against.”(BM16) One Indigenous chief spoke about the grief caused by the challenges of community leadership in face of the violations of their community’ rights: “This hurts. There are too many problems. Then, I drink [alcohol], because if I really think about it I’ll just put a rope around my neck.”(BM05)

The third aspect of distributional justice identified in the interviews was the contrast between the federal government’s vision and the Indigenous peoples’ ideas of development. One activist expressed that “[the government and politicians’ views] are based on a development model that is not real development.”(BM01) Some Indigenous interviewees expressed that the mitigation projects being implemented in Indigenous communities were in fact damaging to communities’ ways of life, as one participant explained: “Everything has become commerce (...) Companies enter the communities to build houses, sanitation systems, schools. They say they are doing good for communities. Good for whom? They have disrupted a social harmony in almost every Indigenous community.”(BM07) One of the mitigation projects, for example, included building aquaculture tanks in Indigenous villages in order to substitute or complement the communities’ fishing practice. From the interviewee’s point of view, aquaculture tanks are an insult to Indigenous ways of life, since the rivers would provide for much more abundance and variety of fish in a sustainable way: “Some people are arguing about the aquaculture tanks. People that lived off fishing! (...) It was the company’s idea. The Indigenous peoples need to establish what they want (...) It’s not the Indians that are deciding whom they want to interact with. They want to transform the Indians here into other people.”(BM07) The participant referred to the need for communities to become more sophisticated in the policies that they want to see implemented in their villages and articulate it clearly to the government and industry.

Among the interviewees that lived outside of reserves, the *ribeirinhos* who were displaced from the banks of the River to move to the city, there was a deep frustration for not being able to plant and fish all the kinds of food that they needed to survive. They argued that their way of life was much richer and comfortable by the River than their life in the city. Electricity was not a basic need for them; they had lived well without it.(BM16) One interviewee explained: “We left our life here [by the River] to live in a slum (...) They said

they would bring a lot of jobs to Altamira but over a hundred people of this land became unemployed. We used to have all kinds of fruits for breakfast and we never paid a cent for them.”(BM11) The development policies promised by the government, to provide jobs for local people and cheap electricity, did not become a reality. On the contrary, Belo Monte increased impoverishment among the people that used to live from the land and waters.

There [by the River] we would have everything we needed. There was a huge change. We starved when we moved here [to Altamira] (...) Today we have to buy these [bananas]. We used to plant it and even have too much of it. We would only buy oil, sugar, salt, and soap. Now, we have to buy everything, when we have the money. (BM16)

The displaced Indigenous *ribeirinhos* received R\$900 (approximately CAN\$300) monthly for the period of one year to compensate them for the loss of their occupation as fishers. One interviewee expressed how they were offended by this compensation benefit, “[a] benefit of R\$900 for one year revolts me because what they did to us is for the rest of our lives (...) Our right is so big that no money can pay”(BM11)

Research participants were also appalled by government development policies advancing industries’ interests with the detriment of local peoples’ wellbeing. One common commentary among interviewees was about the high cost of electricity in the region despite the construction of the 11,233 megawatts Belo Monte dam. One activist pointed to this paradox: “President Dilma Rousseff said: ‘I invite businesses to come to this region, which is so rich in minerals and agriculture. It [the region] will never lack electricity’ and yet we pay the most expensive electricity rate in the country.”(BM01) Interviewees demonstrated their disapproval with infrastructure projects that would not benefit the local people: “If it is to mess with our River again, my opinion is for no more dam. The destruction is too big; there is no money that can pay for it. A dam, for what? What has it brought for us? In our own backyard, where we pay the most expensive electricity rate in Brazil!”(BM11) Compensation and mitigation measures were not appropriate and insufficient to ensure the same quality of life that research participants had before the implementation of Belo Monte.

This subsection contains a description of the distributional justice aspects that I identified in the interviews. The first aspect refers to the destruction of the watershed and fish, which caused Indigenous peoples to lose part of their income and subsistence. Some interviewees also highlighted the importance of fishing practices and fish consumption for their cultural survival. The changes in environmental flow also affected the communities’ mobility in the region, forcing them to use land transportation instead of boats. The second aspect of distributional justice was the range of social factors on Indigenous communities. The high influx of migrants to the region contributed to intensify invasions of Indigenous territories and to proliferate drug and alcohol consumption and sexual exploitation in Indigenous communities. Access to industrialized products caused various health issues such as gastritis, diabetes, and high blood pressure. And the intensification of Indigenous peoples’ visits to the city and meetings regarding mitigation projects in the communities affected communities’ traditional governance and cultural practices. The third aspect of

distributional justice refers to the conflict between the development vision that the government proposed to the region and the ideas of development that local Indigenous peoples had experienced. Belo Monte did not create the expected jobs and cheap electricity to the region, and caused drastic disturbance to the Indigenous peoples' ways of living on the land. The next subsection offers a summary of the data results discussed in this section of the chapter, through the three main aspects of environmental justice in environmental decision-making – recognition of affected people, procedural justice, and distributional justice.

5.4. Summary of the data results

This section of the chapter contained a description of the data results from the interviews with Indigenous leaders and community members, FUNAI officials, and Indigenous and non-Indigenous activists. I organized some of the recurrent issues from those conversations according to the three main aspects of environmental justice, as discussed in the literature review chapter. The first aspect refers to recognition of Indigenous peoples rights, struggles, ways of knowing and being, and Indigenous jurisdiction over traditional territories. The interviewees often mentioned their fight for land and for their ways of living on the land. Some research participants reinforced that Indigenous peoples have the right to land and ways of life, not because the laws or the state say so but because of their identity as Indigenous peoples. The idea that Indigenous peoples of the region are diverse and distinct from other groups was common in the interviews. In particular the Indigenous *ribeirinhos*, living outside of reserves and by the margins of the River, complained about the lack of recognition by the state and asserted their connection with the lands they occupied. Indigenous interviewees also highlighted how their relationship with the land and waters defines their cultures and how it is impossible to assess accurately all the adverse effects of mega projects on Indigenous peoples and lands or to ensure adequate participation of Indigenous peoples in the decision-making. Therefore, the interviews confirm that Indigenous peoples suffer disproportionately the impacts of infrastructure projects, and that impact assessment is unable to account for all the impacts of mega projects such as Belo Monte on Indigenous peoples. The inability of EIA to accurately portray the impacts of the dam is partially due to the lack of state recognition that Indigenous peoples are holders of the inherent right to govern their territories based on and in accordance with their unique ways of living on the lands and waters of the Xingu watershed.

The second aspect of environmental justice focuses on procedural justice regarding the process of impact assessment and decision-making. First, the research participants raised issues of consultation with Indigenous peoples. Most participants indicated that there was no proper consultation with Indigenous peoples, and some argued that FUNAI and Norte Energia considered meetings for the presentation of the project as consultation meetings. The interviewees indicated that it was a matter of taking whatever interactions had happened with communities and recasting them to fit legal requirements by naming these interactions “consultation.” Consultation was then just one more box to check in the decision-making process. Second, interviewees discussed issues around the construction and implementation of mitigation and compensation measures. Compensation benefits to the communities served as an entryway for the project to obtain Indigenous peoples

“approval.” Indigenous peoples stopped fighting the project together and the Indigenous resistance movement became weak. Furthermore, mitigation and compensation measures disregarded the distinctiveness of Indigenous ways of life. Third, interviews revealed Indigenous peoples’ lack of decision-making power regarding the approval of Belo Monte. Some interviewees pointed to the lack of spaces of dialogue between Indigenous communities and the government and that FUNAI lacked capacity to facilitate this dialogue and to ensure the protection of Indigenous rights. Finally, research participants expressed the divergence between state laws and Indigenous laws but raised the importance of considering and respecting manifestations of Indigenous laws into state-led decision-making processes. Some interviewees raised the possibility of Indigenous communities creating their consultation protocols and their impact assessment studies about proposed projects to accurately reflect the impacts on each community, as well as the importance of management bodies with Indigenous participation. Therefore, the interviews demonstrate that consultation in impact assessment is unable to provide for the type of dialogue that Indigenous communities expect to have with the state and industry in regards to development proposals; and that mitigation and compensation measures are unable to restore Indigenous peoples’ ways of relating with the land and waters. The data also indicates that institutional spaces need to be created where Indigenous peoples may express their opinions about infrastructure proposals, be heard, and influence the decision. The inability of EIA to fulfill affected communities’ desires for their lands is partially due to Indigenous people’s lack of decision-making power in state-led reviews, causing communities to rely mostly on compensatory measures.

The third aspect of environmental justice relates to distributional justice in impact assessment and decision-making about dams. First issue under this aspect refers to the destruction of the Xingu River, tributary rivers, and the fish, causing extensive and deep impacts on Indigenous peoples’ livelihood and cultures. Changes in environmental flow compromised fishing and navigation in Indigenous communities. Second, Belo Monte dam triggered a series of social issues that affected Indigenous lands, cultures, and health, such as the increase in consumption of industrialized products, alcohol, and drugs; the increase of land invasions caused by the influx of new migrants to the region; and intense agendas of visits to the city and meeting related to mitigation projects, restricting time for governance acts and ceremonies in the communities. The interviews made clear that the land and waters ensured Indigenous peoples’ survival by providing food and hosting their traditional practices. Third, the interviewees indicated that the Brazilian government’s vision of development for the region conflicted with development for Indigenous peoples. The construction of the Belo Monte dam intensified impoverishment in the region by hampering people’s livelihood that came from the land and rivers while providing for mitigation projects that disconnected Indigenous communities from each other and from their traditional ways of living and knowing. Therefore, the interviews demonstrate that infrastructure projects disproportionately impact Indigenous peoples, and that environmental impact assessment and decision-making do not account for Indigenous peoples’ conception of development. The inability of EIA to promote distributional justice and to realize Indigenous communities’ goals for their lands is due to a long-lasting state policy of favouring mega natural resource projects and reinforcing social inequality.

5. Conclusion

The research participants often used the term ‘struggle’ to refer to the burdens that Belo Monte caused on Indigenous communities and the disregard for their experiences and concerns in the state decision-making. In the Xingu River watershed, struggle is a collective sentiment, informing how Indigenous peoples approach the colonial government. There is a permanent feeling of distrust, as if communities must be constantly fighting for their rights to be respected.

The matters raised by participants reflect issues related to Indigenous decision-making power. First, Brazilian policies on natural resources development undermine Indigenous peoples’ governance over traditional territories by establishing a centralized government model through which decisions about hydropower projects are taken by the government even before the beginning of impact assessment processes. In this context, consultation with Indigenous peoples is tokenistic. State-led environmental decision-making in Brazil has not considered Indigenous peoples’ claims that Belo Monte would profoundly harm their lifeways.

Second, in order to accomplish its development policies, the Brazilian government violates constitutional environmental principles and Indigenous rights, advancing industry’s interests to the detriment of the constitutional rights to an ecologically balanced environment, human dignity, democratic participation, and communities’ material and cultural survival. The Brazilian Prosecution Services, scholars, spokespeople for Indigenous and environmental movements, international organizations such as the IACHR, the Brazilian lower courts and government technical staff from IBAMA and FUNAI have all pointed to the social and environmental injustices committed through the approval of Belo Monte.

Third, Belo Monte’s remarkable size led even government officials to acknowledge that it is impossible to identify, mitigate, and compensate for all the environmental and social impacts created by the dam. The adverse effects are so extensive and cumulative that an accurate impact assessment is completely unfeasible. Scholars and interviewees agree that many impacts are still to be known and that some negative effects on Indigenous peoples and lands are impossible to be analysed and understood in EIA because Indigenous peoples have a very distinct and interwoven relationship with lands and waters.

Finally, to ensure a more accurate characterization of the impacts of infrastructure projects on Indigenous peoples and lands, decision-making processes would need to ensure respect for Indigenous governance systems and their ways of living and knowing. In part, this could be possible through collaborative impact assessments and environmental decision-makings between the state and Indigenous peoples, in which Indigenous communities hold decision-making power through their own bodies of governance.

The data results present similar aspects to the Site C case study in the sense that Indigenous peoples, both in Pará and BC, demand decision-making power over their traditional territories, respect for their ways of being and knowing in connection with the land, and

respect for Indigenous Constitutional rights. However, state-led environmental impact assessment and decision-making present fundamental limitations that render them unable to deliver those expectations. Some of the aspects of impact assessment, such as consultation and ample discretion by the state government, have contributed to the continuation of power asymmetries between the state and Indigenous peoples and environmental injustices through the disparate adverse effects of development proposals.

Due to the history of distrust from Indigenous communities towards the state, the possibility of them cooperating in the future for the region's socio-ecological governance seems far fetched. The presence of struggle in this case leads cooperation to appear extremely challenging.

Nevertheless, Indigenous participants are aware of the need to work with the state government to protect their lands and resources. Some of the interviewees mentioned management tools, such as independent bodies with representation of Indigenous peoples and decision-making power and compliance with Indigenous peoples protocols for consultation and consent. Those mechanisms could contribute to hold state-led impact assessment and decision-making accountable to its original purpose of leading legitimate and fair decisions regarding the use of the land and watersheds.

Still, EIA and decision-making of mega infrastructure projects such as Belo Monte would be incapable of addressing the concerns and expectations of Indigenous peoples, given the magnitude and uncertainty of the impacts on traditional territories.

In chapter six, I develop a detailed analysis of the differences and similarities between the two case studies, based on the three aspects of environmental justice, and then indicate how the equity principles, developed in chapter three, could contribute to a cooperative model of decision-making about infrastructure projects in Brazil and Canada.

Chapter 5: Site C Hydropower Project Impact Assessment and Decision-Making

1. Introduction

1.1. Overview and goals of the chapter

Site C will be the third hydropower dam in the Peace River in British Columbia. The W.A.C. Bennett dam is the largest, followed by the Peace Canyon dam, both only a few kilometres away from the Site C construction site. The Bennett dam's reservoir, the Williston reservoir, is the seventh largest in the world.⁷⁷⁷ It was flooded in 1968 without prior environmental assessment, public participation of the affected communities and consultation with Indigenous peoples. Residents of the region often share some of their memories – Indigenous communities that were destroyed by the waters, families and community members that lost their homes and were separated by the dam.⁷⁷⁸ Wildlife, especially caribou herds, drowned in the reservoir's waters.⁷⁷⁹ In 2016, BC Hydro inaugurated a gallery at the W.A.C. Bennett dam's visitor centre dedicated to the First Nations devastated by the reservoir. The exhibit portrays quotes from members of local First Nations on the walls and a film by the Kwadacha Nation.⁷⁸⁰ The message in highlight on the gallery wall seems to reflect the feelings of many Treaty 8 First Nations members today when they speak about natural resources development in the Northeastern BC – “They call it progress we call it destruction.”⁷⁸¹ Community members are still talking about the negative impacts of the construction of the Bennett dam, and it is on top of this socio-cultural and socio-ecological landscape that BC Hydro is constructing Site C.

Site C is not a new project. Discussions about the dam have been ongoing for over five decades, since the late 1960s, when BC Hydro engineers began to conduct studies to evaluate the potential of building a series of dams in the Peace River. In 1982 and 1983 the British Columbia Utilities Commission (BCUC) led a review of the Site C project, holding

⁷⁷⁷ BC Hydro, “Williston Reservoir”, *BC Hydro* (website), online: <https://www.bchydro.com/community/recreation_areas/williston.html>.

⁷⁷⁸ Larry Pynn, the Vancouver Sun, “First Nations split over BC Hydro's Site C dam megaproject”, (8 December 2013), *First Nations in BC Knowledge Network* (blog), online: <<https://fnbc.info/news/first-nations-split-over-bc-hydros-site-c-dam-megaproject>>. The Tsay Keh Dene was one of the most affected First Nations in the regions. The community had to be relocated to miles away, close to Prince George, BC. “In a 2009 agreement, the Tsay Keh Dene received a one-time payment of \$20.9 million — most of which was to be placed in an endowment fund — and annual payments of about \$2 million to support a wide range of social, cultural and governance programs(...) In 2008, the Kwadacha First Nation received a one-time payment of \$15 million and annual payments of \$1.6 million.”

⁷⁷⁹ Gavin Fisher, “BC Hydro acknowledges dark past of W.A.C. Bennett dam in new exhibit”, *CBC News* (15 June 2016), online: <<https://www.cbc.ca/news/canada/british-columbia/bc-hydro-acknowledges-dark-past-of-wac-bennett-dam-1.3637489>>.

⁷⁸⁰ Sarah Cox, “BC Hydro Apologizes for Bennett Dam's ‘Profound and Painful’ Impact on First Nations at Gallery Opening”, *The Narwhal* (10 June 2016), online: <<https://thenarwhal.ca/bc-hydro-apologizes-bennett-dam-s-profound-and-painful-impact-first-nations-gallery-opening/>>.

⁷⁸¹ BC Hydro, “First Nations gallery at Bennett Dam ‘a chance to heal’”, (4 July 2016), *BC Hydro* (blog), online: <<https://www.bchydro.com/news/conservation/2016/bennett-first-nations-gallery.html>>.

116 days of public hearings in local communities and consultation with Indigenous peoples in BC Treaty 8 territory.⁷⁸² The BCUC rejected the project for lack of energy demand and the need for specific studies comparing the price of energy from Site C with alternative sources of energy. It concluded: “[A]n Energy Project Certificate should not be issued for Site C until the justification conditions outlined in Chapter X have been met, specifically, (1) that Hydro demonstrate that future electricity requirements warrant immediate commencement of construction and (2) that a comparison of system expansion alternatives indicates that Site C is the best available project.”⁷⁸³ The proposal seemed to have reached its end.

In the 1990s the BC Hydro Board of Directors considered proposing the project again but rejected the idea even before entering a review process because of the high cost of the project and, once again, for lack of evidence for the energy demand.⁷⁸⁴ However, in the 21st-century Site C would regain traction in BC politics. In 2010, the BC premier Gordon Campbell announced they would proceed with Site C arguing that forecasts of BC electricity demand would grow up to 40% by 2030.⁷⁸⁵ The announcement brought along the promise to create 35,000 jobs in the region.⁷⁸⁶ In that same year, the province of BC enacted the *British Columbia Clean Energy Act*,⁷⁸⁷ which incorporated Site C as part of the province’s policy for renewable energy production. The *Act* exempted Site C from undergoing a BCUC review and from applying for and obtaining a certificate of public convenience and necessity, as required in the *Utilities Commission Act*.⁷⁸⁸ In 2013, BC Hydro finalized its environmental impact studies for Site C.⁷⁸⁹ In August, the federal and provincial governments appointed a joint review panel formed by three experts – one chair, one nominee of the federal government, and one nominee of the provincial government.⁷⁹⁰

⁷⁸² *Site C Report. Report and Recommendations to the Lieutenant Governor-in-Council*, by British Columbia Utilities Commission (Vancouver: British Columbia Utilities Commission, 1983) at 46, 47.

⁷⁸³ *Ibid.* at 29

⁷⁸⁴ Sarah Cox, “The dirty business of clean power”, *National Post* (14 May 2019) online: <<https://nationalpost.com/news/canada/the-dirty-business-of-clean-power>>.

⁷⁸⁵ BC Hydro, “Province announces Site C Clean Energy Project”, (19 April 2010), *BC Hydro* (blog), online: <https://www.bchydro.com/news/press_centre/news_releases/2010/province_announces_site_c_clean_energy_project.html>.

⁷⁸⁶ *Ibid.*

⁷⁸⁷ *Clean Energy Act*, SBC 2010, C-22.

⁷⁸⁸ *Ibid*; *Utilities Commission Act*, RSBC 1996, C-473, s 45. The Utilities Commission Act establishes at s. 45 that “a person must not begin the construction or operation of a public utility plant or system, or an extension of either, without first obtaining from the commission a certificate that public convenience and necessity require or will require the construction or operation. S. 45(8) The commission must not give its approval unless it determines that the privilege, concession or franchise proposed is necessary for the public convenience and properly conserves the public interest. S. 46 (1) An applicant for a certificate of public convenience and necessity must file with the commission information, material, evidence and documents that the commission prescribes.”

⁷⁸⁹ *Environmental Impact Statement. Executive Summary. Site C Clean Energy Project*, Executive Summary - Part 1 and 2, by BC Hydro, Executive Summary - Part 1 and 2 (Vancouver, BC: BC Hydro, 2013).

⁷⁹⁰ Review Panel Established by the Federal Minister of the Environment and the British Columbia Minister of Environment, *supra* note 196.

The panel reviewed BC Hydro's impact studies and conducted twenty-four days of public hearings in local communities and seven days of consultation with Indigenous peoples in First Nations' reserves. In May 2014, the panel issued a 473-page report concluding that Site C would significantly and adversely affect First Nations, and that some of those impacts were immitigable.⁷⁹¹ Nevertheless, in October 2014, the Minister of the Environment of Canada and the Minister of the Environment of BC approved the project after the Governor-in-Council stated that Site C's significant adverse effects were justifiable considering the economic benefits it would generate, especially energy production and job creation.⁷⁹²

In the winter of 2015, a group formed by local individual activists and First Nations members (the Treaty 8 Stewards of the Land) protested at Rocky Mountain Fort – a heritage site of archeological importance for settlers and Indigenous peoples – the clear-cutting of trees for the construction of the dam.⁷⁹³ They camped in the area in a shack for many days, despite the extremely low temperatures, demanding that BC Hydro stopped the logging, suspended Site C, and forwarded the project to a review by the BCUC. BC Hydro later filed a civil lawsuit against the protesters and their supporters for trespassing on BC Hydro's property.⁷⁹⁴ The BC Premier at the time, Christy Clark, defended the project and affirmed that her government would take Site C 'to a point of no return.'⁷⁹⁵ Site C was one

⁷⁹¹ Around the same time, the Campbell government's former deputy became the president and CEO of BC Hydro. See Derrick Penner and Rob Shaw, "New Hydro boss: Gordon Campbell's former deputy takes over utility", *Times Colonist* (29 May 2014), online: <<https://www.timescolonist.com/business/new-hydro-boss-gordon-campbell-s-former-deputy-takes-over-utility-1.1096740>>; Review Panel Established by the Federal Minister of the Environment and the British Columbia Minister of Environment, *supra* note 196.

⁷⁹² BC Environmental Assessment Office, *Site C Environmental Assessment Certificate* (2014); Impact Assessment Agency of Canada, *Site C Environmental Assessment Decision Statement* (2014); See Nichole Dusyk, "Clean Energy Discourse in British Columbia, 1980-2014" (2016) 189 *BC Studies* 77-101. Dusyk argues that the difference between the rejection of the project in the 80s and the approval of Site C in 2014 was that the BC's clean energy discourse has changed to include LNG as part of its clean energy policy, adding industry lobby to support the approval of the dam.

⁷⁹³ The Fort was one of the first European settlement areas and locations for fur trade. The remains located in the site would help understand the history of the relationship between settlers and Indigenous peoples of the region. See KR Fladmark, "Early Fur-Trade Forts of the Peace River Area of British Columbia" (1985) 65 *BC Studies* 48-65; Sarah Cox, "Valuable First Nations Historic Sites 'Will Be Gone Forever' if Site C Dam Proceeds: Archaeologist", *The Narwhal* (8 January 2016) online: <<https://thenarwhal.ca/valuable-first-nations-historic-sites-will-be-gone-forever-if-site-c-dam-proceeds-archaeologist/>>.

⁷⁹⁴ Sarah Cox, *Breaching the Peace. The Site C Dam and a Valley's Stand against Big Hydro* (Vancouver; Toronto: On Point Press, 2018) at 35. This kind of lawsuit is known as "strategic lawsuit against public participation" (SLAPP suit), which is used to threaten financial and personal ruin to protesters and send a message to avoid further opposition to state actions. BC Hydro included Jane and John Doe in the lawsuit as a reference to any yet unnamed supporter of the protest.

⁷⁹⁵ Vaughn Palmer, "Getting Site C to point of no return a damning progress report, so far", *Vancouver Sun* (6 January 2017) online: <<https://vancouversun.com/opinion/columnists/vaughn-palmer-getting-site-c-to-point-of-no-return-a-damning-progress-report-so-far>>.

of the heated topics in the 2017 provincial elections.⁷⁹⁶ When the NDP and the Green party reached an agreement to form a new government, advocates for the Peace River, renewed their hopes that the project would finally die.⁷⁹⁷ In 2017, Premier John Horgan forwarded the project to a review by the BCUC, despite the initial exemption granted by the *Clean Energy Act*. The review concluded that a mix of alternative sources of energy could match the amount and the price of energy that Site C would produce, as the BCUC's report stated "increasingly viable alternative energy sources such as wind, geothermal and industrial curtailment could provide similar benefits to ratepayers as the Site C project with an equal or lower Unit Energy Cost."⁷⁹⁸ Nevertheless, on December 11, 2017, Premier Horgan announced that the BCUC review left no alternative to the government but to move forward with the project. The Premier stated "[t]he old government recklessly pushed Site C past the point of no return, committing billions of dollars to this project without appropriate planning and oversight. Our job now is to make the best of a bad deal and do everything possible to turn Site C into a positive contributor to our energy future."⁷⁹⁹ In April 2018, BC Hydro estimated the total cost of the project to be 10.7 billion dollars.⁸⁰⁰

The project is currently under construction but still faces intense opposition from local settler landowners, environmental organizations, and First Nations. Scientists and academics supported by the Royal Society of Canada signed a statement indicating their concern about the extent of impacts that Site C would cause and the adverse effects that the assessment did not predict.⁸⁰¹ Environmental and human rights organisations such as the Sierra Club and Amnesty International have been advocating for a halt to the construction of the dam.⁸⁰² And the chair of the joint panel that reviewed the project went

⁷⁹⁶ Charlie Smith, "The B.C. NDP, the Site C dam, and the 2017 provincial election", *The Georgia Straight* (14 May 2015) online: <<https://www.straight.com/news/451746/bc-ndp-site-c-dam-and-2017-provincial-election>>.

⁷⁹⁷ Zoë Ducklow, "Site C to Test B.C. NDP's Commitment to Indigenous Rights", *The Narwhal* (14 September 2017) online: <<https://thenarwhal.ca/site-c-test-b-c-ndp-s-commitment-indigenous-rights/>>.

⁷⁹⁸ British Columbia, *Inquiry Respecting Site C. Final Report to the Government of British Columbia*, (Vancouver: BC Utilities Commission, 2017).

⁷⁹⁹ Office of the Premier, "Government will complete Site C construction, will not burden taxpayers or BC Hydro customers with previous government's debt", (11 December 2017), BC Government (blog), online: <<https://news.gov.bc.ca/releases/2017PREM0135-002039>>; *Reassessing the Need for Site C*, by Richard Hendriks, Karen Bakker & Philip Raphals, Program on Water Governance (Vancouver, BC: University of British Columbia, 2017). This report indicates alternatives to the Site C project demonstrating that costs of other projects combined would be similar to Site C and with less environmental impacts.

⁸⁰⁰ *Site C Project Budget*, by BC Hydro (Vancouver, B.C.: BC Hydro, 2018). Access online on July 2, 2020: <<https://www.sitecproject.com/project-budget>>. At the time of completion of this dissertation, the cost is being estimated at 16 billion dollars.

⁸⁰¹ Site C: Statement by Concerned Scholars, (blog) online: <<https://sitecstatement.wordpress.com/home-2/>>.

⁸⁰² Sierra Club, "Site C dam", *Sierra Club BC* (website), online: <<https://sierraclub.bc.ca/campaigns/site-c/>>; Amnesty International, "Site C Dam - Human Rights at Risk", (22 July 2015), *Amnesty International Canada* (website), online: <<https://www.amnesty.ca/our-work/issues/indigenous-peoples/indigenous-peoples-canada/resource-development-canada/site-c-dam>>.

public with his critiques to the decision to approve the dam in conflict with the panel's advice.⁸⁰³

Site C presents a complex entanglement of decision-making process and a series of complex factors that support or challenge the decisions to approve it.⁸⁰⁴ There is disagreement among Canadians concerned about investments in renewable sources of energy in face of climate change, about pro jobs and pro-development policies, the raise of electricity rates, about government accountability and transparency, about the amount of land available for agriculture, justice for Indigenous peoples, and socio-ecological sustainability. Some argue that the dam would generate clean energy at a low cost and low greenhouse gas emission when compared to oil and gas facilities, and that Site C is important for the BC economy, creating jobs and providing for clean energy needed in an age of climate change. Site C could provide enough energy for 450,000 homes each year for one hundred years.⁸⁰⁵ Advocates for the project argue that stopping Site C construction at this point would mean the loss of many construction jobs and the wasting of the financial investment that has already been made into the project, what is technically referred to as the 'sunk costs'.⁸⁰⁶ Others say alternative sources of energy would be more cost-effective than energy from Site C, even when sunk costs are considered.⁸⁰⁷ Some argue that the purpose of Site C is to promote electrification in support of fossil fuel industry activities in the Northeast, and that the need for the electricity is contested, that energy demands have not changed and are not expected to increase in the next few decades.⁸⁰⁸ Advocates against the dam also point to the loss of agricultural land, at a time in which local food movements and concerns about food security are growing, and the flood of a critical ecosystem in the Peace River Valley.⁸⁰⁹

Among the First Nations affected by Site C, there is disagreement on how to officially engage with BC Hydro. Some Nations have signed Impact Benefit Agreements with BC

⁸⁰³ Carol Linnitt, "New Video: Cutting Through the Spin on the Site C Dam with Harry Swain", *The Narwhal* (26 October 2016) online: <<https://thenarwhal.ca/new-video-cutting-through-spin-site-c-dam-harry-swain/>>.

⁸⁰⁴ These types of entanglements are seen in almost every decision-making about mega-dams. See, e.g., Sarah Cox, "Manitoba's hydro mess points to Canada's larger problem with megadams", *The Narwhal* (22 November 2018) online: <<https://thenarwhal.ca/manitobas-hydro-mess-points-to-canadas-larger-problem-with-megadams/>>.

⁸⁰⁵ Brian Cochrane, "Site C Dam Is a Good Decision for British Columbia", *The Tyee* (28 March 2018) online: <<https://thetyee.ca/Opinion/2018/03/28/Site-C-Dam-Is-Good-Decision/>>.

⁸⁰⁶ Office of the Premier, *supra* note 799.

⁸⁰⁷ *Dammed If You Do: How Sunk Costs Are Dragging Canadian Electricity Ratepayers Underwater*, by AJ Goulding, Commentary n. 528 (C.D. Howe Institute, 2019).

⁸⁰⁸ Ben Parfitt, "Site C dam to electrify LNG industry is far from clean", *Vancouver Sun* (4 March 2019) online: <<https://vancouver.sun.com/opinion/op-ed/ben-parfitt-site-c-dam-to-electrify-lng-industry-is-far-from-clean>>.

⁸⁰⁹ Wendy Holm, "Rape of the Commons: The Impact of Site C on Farmland and Food Security" in Wendy Holm, ed, *Damming the Peace* (Toronto: Lorimer, 2018) 95.

Hydro,⁸¹⁰ for the creation of jobs, contracting opportunities, and local opportunities for community development.⁸¹¹ Other Nations express concern about their future, as waters will submerge sacred sites, animals will move away from the area, fish will be affected (some extinguished), and certain medicinal plants will cease to exist.⁸¹² The Blueberry River, Fort Nelson, Prophet River, and West Moberly First Nations, for instance, have been actively outspoken against the construction of the dam. The West Moberly and Prophet River First Nations, in particular, have filed lawsuits in BC courts to stop the project,⁸¹³ and the Blueberry River First Nation filed a lawsuit challenging the cumulative effects of various industries in their traditional territory.⁸¹⁴ West Moberly First Nation's elected Chief Roland Willson has emphasized many times in the media and at public events that First Nations are not opposed to economic development but rather to the unnecessary destruction of the Peace Valley.⁸¹⁵ In Alberta, the Mikisew Cree First Nation issued a complaint to the United Nations World Heritage Centre, arguing that Site C would contribute to increasing adverse impacts over the Wood Buffalo National Park, at the Peace Athabasca Delta, due to cumulative changes in water flow.⁸¹⁶ Among Treaty 8 First Nations that oppose the dam, there is a strong sentiment of distrust concerning the decision-making process⁸¹⁷ and disrespect to treaty rights.⁸¹⁸

⁸¹⁰ McLeod Indian Band, Saulteau, Halfway River, Doig River First Nations, and Dene Tha' First Nation of Northwest Alberta

⁸¹¹ Pynn, *supra* note 778.

⁸¹² *Ibid.*

⁸¹³ Andrew Kurjata, "West Moberly and Prophet River First Nations file court claim to stop Site C", *CBC News* (16 January 2018) online: <<http://www.cbc.ca/news/canada/british-columbia/site-c-dam-court-case-1.4489679>>.

⁸¹⁴ *Yahey v British Columbia* 2015 BCSC 1302.

⁸¹⁵ Chief Willson's speech at the Paddle for the Peace event on July 14, 2018.

⁸¹⁶ Mikisew Cree First Nation, "Unesco", (3 July 2019), *Mikisew Cree First Nation* (website), online: <<http://mikisewgir.com/projects>>.

⁸¹⁷ Ducklow, *supra* note 797.

⁸¹⁸ Pynn, *supra* note 778.

panel members, revealing the participants' perceptions of the process of decision-making about the dam and its effects on Indigenous peoples and lands. The issues are categorized into the three aspects of environmental justice described in the literature review chapter – recognition of the groups affected by environmental decision-making; procedural justice issues related to public engagement, consultation, and Indigenous peoples' decision-making power; and distributional justice aspects, considering the magnitude and depth of adverse effects on Indigenous communities, lands, their livelihood and cultures. The chapter ends with a conclusion on how the matters raised by the participants reflect deeper issues related to Indigenous peoples' decision-making power and participation in processes about hydropower dams in Canada and BC.

1.2. Brief historical background of development in the Northeast of BC

The Sekani, the Cree, the Slavey, and the Beaver (also known as the Dunne-za), have been living in the Northeast of, what is known today as, British Columbia for thousands of years.⁸²⁰ West Moberly chief, Roland Willson explains that “[t]he Dunne-za people have been on the ground in Northeastern B.C. for over 13,000 years. We hunted the mammoth that lived there, so we’ve been there and are continuing to be there and we plan on staying much longer.”⁸²¹

The first accounts of Europeans arriving in the region are from 1793, by Sir Alexander Mackenzie in his trip to the Pacific on behalf the Northwest Company. When passing the mouth of what is now the Pine River, Mackenzie remarked on the suitability of the area for a trading establishment.⁸²² In the following years, the Northwest Company founded the Rocky Mountain Fort for fur trading purposes, as well as the Fort St. John.⁸²³ Archeological studies confirm that the remains of Rocky Mountain Fort are located in the area allocated for the Site C project. In 1985, the archeologist responsible for the studies that would inform the first assessment process for Site C stated that: “It was with considerable relief that I greeted the recent news that B.C. Hydro has decided to forgo, for the time being, any further development of the ‘C’ damsite on the Peace River.”⁸²⁴ He explained that the project would have submerged Rocky Mountain Fort and that construction activities would have caused serious damage to the site.⁸²⁵

In 1899, the Crown signed Treaty 8 with Indigenous peoples down the Lesser Slave Lake and, in the following years, the Sekani, Beaver, the Cree, and the Slavey peoples adhered to the treaty under the assurance that the agreement would protect their modes of

⁸²⁰ Hugh Brody, *Maps and Dreams. Indians and the British Columbia Frontier* (Vancouver, BC: Douglas & McIntyre, 1981) at 16.

⁸²¹ Rolland Willson & Bruce R Muir, *Neither ‘Subject To, Or Inferior To, The Crown’s Right’ To Sustainability”. Indigenous Rights and Improving the Quality of Environmental Assessments in Canada* (Ottawa, Ontario, 2018).

⁸²² Fladmark, *supra* note 793 at 49.

⁸²³ *Ibid.*

⁸²⁴ *Ibid.* at 55.

⁸²⁵ *Ibid.* at 55.

life.⁸²⁶ According to the text of the treaty, Indigenous peoples “cede, release, surrender and yield up to the Government of the Dominion of Canada, for Her Majesty the Queen and Her successors for ever, all their rights, titles and privileges whatsoever, to the lands included within the following limits.”⁸²⁷ The Crown would be able to “take up” tracts of land “from time to time for settlement, mining, lumbering, trading or other purposes.”⁸²⁸ The report by the Treaty Commissioner to the Crown included the assurance that the “Indians would be as free to hunt and fish after the treaty as they would be if they never entered into it... We assured them that the treaty would not lead to any forced interference with their mode of life.”⁸²⁹

Hugh Brody indicated that Treaty 8 had the particular purpose of allowing European settlers’ access to and extraction of oil, gas, and minerals.⁸³⁰ In 1923, a mining engineer recorded that “[t]he important known mineral-deposits of the Peace River Division consist of coal and placer gold. ... The possible occurrence of petroleum in the rocks of this Division has been the subject of some investigation. Geologic reconnaissances have been made by a number of oil companies and leases have been taken up.”⁸³¹ In 1952, James MacGregor stated “[g]reat are the riches of the Peace River Country. In good black soil, gas and oil, coal and water power, timber and pulp wood it is physically rich.”⁸³² Since the signature of Treaty 8 the provincial government has been authorizing several industries to explore resources in the Northeast of the province of BC.

The W.A.C. Bennett dam was the first hydropower development in the region, followed by the Peace Canyon dam in 1980. The hydropower dams were the first large infrastructure projects in the region, causing a series of impacts to the Peace River watershed and communities. The dams contributed to a decrease in the species of fish in the Peace River and to contamination of fish by methylmercury.⁸³³ The Bennett dam, in particular, flooded an extensive amount of land, destroying Indigenous communities that lived in the watershed and disturbing caribou’ migration routes.⁸³⁴

⁸²⁶ Canada, *Treaty No. 8* (Government of Canada; Indigenous and Northern Affairs Canada, 1899).

⁸²⁷ *Ibid* at 8.

⁸²⁸ Canada, *supra* note 826.

⁸²⁹ Clifford Sifton, *Report of Commissioner for Treaty No. 8* (Government of Canada; Indigenous and Northern Affairs Canada, 1899) at 8. The text of the Treaty is accompanied by this report by the Treaty Commissioner, who has negotiated with Indigenous peoples on behalf of the Crown.

⁸³⁰ Brody, *supra* note 820 at 63, 64.

⁸³¹ John D Galloway, “A Mining Engineer Report” in *Peace River Chronicles* (Vancouver, BC: Prescott Publishing Company, 1963) 389 at 391.

⁸³² Gordon Bowes, *The Peace River Chronicles* (Vancouver, BC: Prescott Publishing Company, 1963). [Quote on the back cover]

⁸³³ *Williston-Dinosaur Watershed Fish Mercury Investigation*, by Fish and Wildlife Compensation Program (2019).

⁸³⁴ Gavin Fisher, *supra* note 779.

In the past two decades, oil and gas developments have been the predominant industry in the region. Kathryn Garvie and Karena Shaw describe the policies on the exploration of liquefied natural gas (LNG) in Northeastern BC and argue “since 2008, shale gas development has boomed, in large part due to the provincial government’s explicit focus on liquefied natural gas (LNG) as a key tenet of its economic strategy.”⁸³⁵ Extractive developments and related infrastructure have rapidly transformed the region’s landscape.⁸³⁶ The authors explain that the government uses a permit-by-permit approach to consultation and regulation to oil and gas facilities, without a prior more comprehensive landscape-scale planning and management to monitor and mitigate overall impacts. As the authors explained, “[t]he result is widespread habitat fragmentation, ecological degradation, and unknown impacts on hydrological systems.”⁸³⁷

In a presentation to the Standing Committee on the Environment and Sustainable Development in the House of Commons,⁸³⁸ Chief Willson depicted the cumulative impacts of different industries on Indigenous peoples and lands of the Northeast region of BC. Indigenous communities are concerned with the air they breathe due to contamination by sour gas; with the fish they harvest due to mercury contamination from the Williston Reservoir;⁸³⁹ the animals they hunt, which suffer contamination from the soil; the water they drink due to contamination with mercury and selenium; and the forests where they camp, due to the loss of land by land slides, erosion, sloughing.⁸⁴⁰ Some of the Indigenous Nations, in BC and Alberta, most directly affected by hydro and oil and gas industries in Northeast BC are the Blueberry River First Nations, McLeod Lake Indian Band, Saulteau First Nations, Doig River, Halfway River, Prophet River, West Moberly First Nations, Fort Nelson, Dene Tha’ First Nation, Duncan’s First Nation, Horse Lake First Nation, Tsay Keh Dene Band and Kwadacha First Nation.⁸⁴¹

Indigenous communities in the northeast of BC often refer to the cumulative impacts from industries on their lands as a “death by a thousand cuts.”⁸⁴² In reaction to the cumulative impacts on their traditional territory, the Blueberry River First Nation filed a civil lawsuit

⁸³⁵ Kathryn H Garvie & Karena Shaw, “Shale gas development and community response: perspectives from Treaty 8 territory, British Columbia” (2016) 21:8 *Local Environment* 1009–1028 at 1010.

⁸³⁶ *Ibid.* at 1010.

⁸³⁷ *Ibid.* at 1017.

⁸³⁸ Willson & Muir, *supra* note 821.

⁸³⁹ Cox, *supra* note 794 at 117. West Moberly, for instance, hired specialized consultants to analyse the condition of bull trout fish, an important part of the First Nation’s diet. The report shows that forty percent of the community’s frozen bull trout were contaminated by mercury beyond the threshold recommended by Canada’s Health standards.

⁸⁴⁰ Willson & Muir, *supra* note 821.

⁸⁴¹ *Site C Clean Energy Project - Complete Environmental Impact Statement including Amendments*, by BC Hydro (Vancouver, B.C.: BC Hydro, 2013). online: CEAA <<https://ceaa-acee.gc.ca/050/evaluations/document/93686?culture=en-CA>>, at vol 5 sec 34, “Asserted or Established Aboriginal and Treaty Rights, Aboriginal Interests, and Information Requirements”,

⁸⁴² Annie L Booth & Norm W Skelton, “‘You spoil everything!’ Indigenous peoples and the consequences of industrial development in British Columbia” (2011) 13:4 *Environ Dev Sustain* 685–702.

against the province for historically authorizing uncontrolled natural resource development in the area. Nation leadership argues that the cumulative effects of industrial development have effectively compromised the meaningful exercise of their treaty rights to hunt, trap, and fish.⁸⁴³

The Site C project would contribute to the increase of cumulative impacts over Blueberry River's and other Nations' traditional territories. The Site C joint review panel report indicated that "[t]he Project, combined with past, present and reasonably foreseeable future projects would result in significant cumulative effects on fish, vegetation and ecological communities, wildlife, current use of lands and resources for traditional purposes, and heritage. In some cases, these effects are already significant, even without the Project."⁸⁴⁴ The next sub section provides an overview of the project and the biophysical changes that it would cause.

1.3. The Site C project and biophysical changes

At approximately seven kilometres southwest of the City of Fort St. John, the Site C dam is slated to create a 83-kilometre reservoir in the Peace River, increasing the original width of the River by three times.⁸⁴⁵ The dam requires the flooding of approximately 5,550 hectares of land to produce 1,100 MW energy capacity.⁸⁴⁶ The main components of the project are one dam, one generating station, and a spillway to discharge inflows that exceed the capacity of the generating station. For the construction of the dam, BC Hydro is building two diversion tunnels and an earthfill dam across the River valley. After completion of the diversion tunnels, the Peace River will be diverted through the tunnels, and cofferdams will block off the main River channel to isolate the area to construct the earthfill dam.⁸⁴⁷ The project also includes three 500 kV transmission lines to conduct electricity from the generating station to a new substation near the dam site and two new 500 kV alternating current transmission lines connecting the new substation to the existing Peace Canyon substation, which would replace an existing 138 kV line.⁸⁴⁸ The construction of the dam requires the realignment of approximately 30 km of the Highway 29, which

⁸⁴³ *Yahey v British Columbia*, 2017 BCSC 899 at para 20. In their petition for an interlocutory injunction, on paragraph 27, Blueberry River requested the protection of certain critical areas: "Blueberry River argues that their exercise of Treaty 8 rights will suffer irreparable harm if certain delineated areas are not given 'urgent protection' from the 'unabated types and rate of Industrial Development that have converted extensive areas of their Traditional Territory already.'"

⁸⁴⁴ Review Panel Established by the Federal Minister of the Environment and the British Columbia Minister of Environment, *supra* note 196 at v.

⁸⁴⁵ BC Hydro, *supra* note 789 at 10.

⁸⁴⁶ *Ibid.* at 10.

⁸⁴⁷ *Ibid.* at 10-15. Cofferdams are watertight enclosures from which water is pumped to expose the bottom of a body of water and permit construction (Merriam Webster English Dictionary)

⁸⁴⁸ *Ibid.* at 10-15.

connects Hudson's Hope to Fort St. John and runs along the north side of the Peace River.⁸⁴⁹

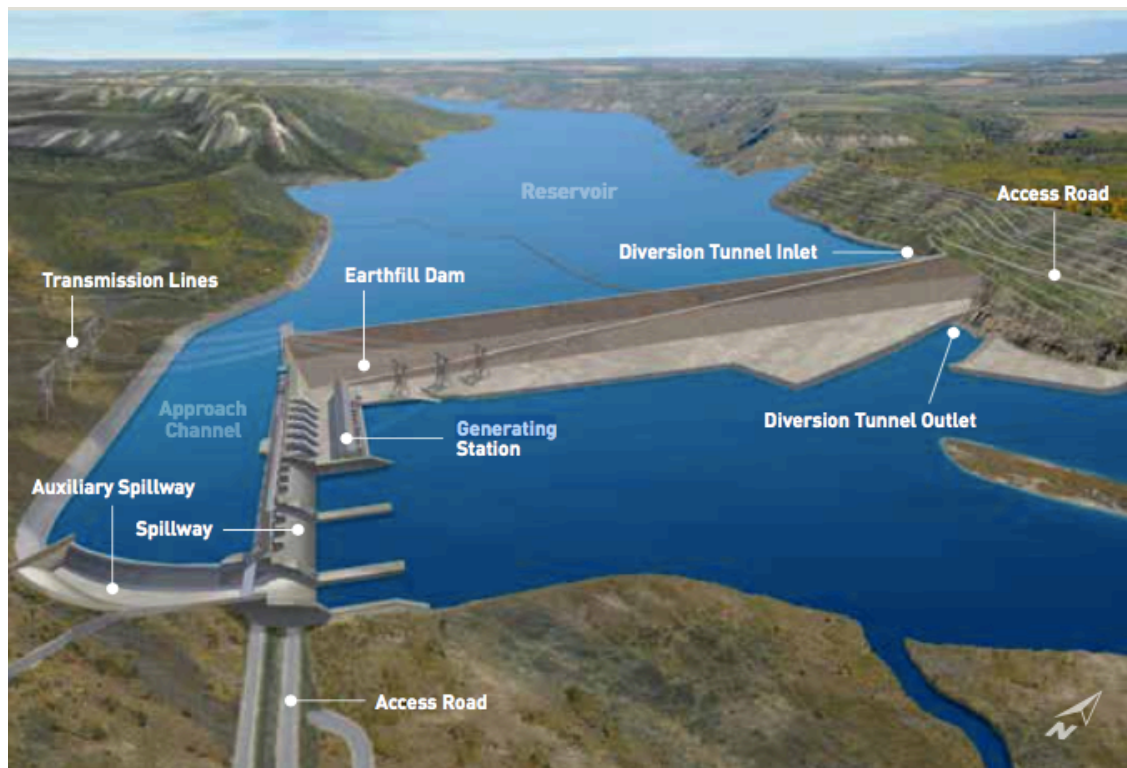


Figure 6: Artist rendering of the proposed Site C project. Source: BC Hydro Environmental Impact Statement Executive Summary⁸⁵⁰

The joint review panel report indicates that the Site C reservoir will cause significant adverse effects on fish and fish habitat, and a number of birds and bats, smaller vertebrate and invertebrate species, rare plants, and sensitive ecosystems.⁸⁵¹ The project will significantly affect the current use of land and resources for traditional purposes by Indigenous peoples, and the harvest of fish and wildlife by non-Indigenous people. It will end agriculture in the Peace River Valley bottomlands and inundate valuable

⁸⁴⁹ *Ibid.* at 13

⁸⁵⁰ *Ibid.* at 10.

⁸⁵¹ Review Panel Established by the Federal Minister of the Environment and the British Columbia Minister of Environment, *supra* note 196 at iv.

paleontological, archaeological, and historic sites.⁸⁵² The BC government excluded agricultural land from the Agricultural Land Reserves for the purpose of building Site C.⁸⁵³

BC Hydro considered the Blueberry River First Nations, McLeod Lake Indian Band, Saulteau First Nations, Doig River, Halfway River, Prophet River and West Moberly First Nations as the “Project Area Aboriginal Groups”.⁸⁵⁴ Indigenous peoples indicate that the dam would have downstream effects on water flow and water levels, not only in the Peace River, but also the Slave River, McKenzie River, Salt River, and Great Slave Lake.⁸⁵⁵ Indigenous communities also indicate that the transmission line from Site C through the Peace Moberly Tract to the Peace Canyon dam would impact wildlife populations and result in a direct loss of forest resources and vegetation.⁸⁵⁶ The Highway 29 road realignment would impact a sweat lodge located near Bear Flat and result in loss of thermal cover on slopes.⁸⁵⁷ Clearing of vegetation would increase sedimentation, wildlife displacement, loss of fish and fish habitat.⁸⁵⁸ Quarried and excavated sites would affect traditional or cultural use of the land.⁸⁵⁹ The flooding of the reservoir would cause the

⁸⁵² *Ibid*; Karen Bakker & Richard Hendriks, “Contested Knowledges in Hydroelectric Project Assessment: The Case of Canada’s Site C Project” (2019) 11:3 Water 406. Based on data from the Canadian Environmental Assessment Agency and the Environment and Climate Change Canada, Karen Bakker and Richard Hendricks point to the unprecedented number of significant adverse effect expected from Site C project, when compared to other projects, including hydropower, LNG, and mining. Site C would cause twenty significant environmental adverse effects, followed next by controversial projects such as New Prosperity Gold and Copper Mine Project and Lower Churchill Hydroelectric Generation Project, which would generate five significant environmental adverse effects each.

⁸⁵³ *Regulation respecting land in the Agricultural Land Reserve*, OIC 148, (2015) BCLaws; Government of British Columbia, “Provincial Agricultural Land Commission”, BC Government (website), online: <<https://www.alc.gov.bc.ca/alc/content/home>>. The Agricultural Land Reserve (ALR) is a provincial zone in which agriculture is recognized as the priority use. Farming is encouraged and non-agricultural uses are restricted. The Agricultural Land Commission (ALC) is the independent administrative tribunal responsible for preserving agricultural land, encouraging farming, and deciding requests to exclude areas from the ALR.

⁸⁵⁴ BC Hydro, *supra* note 789 at 16. BC Hydro consulted with these Nations and also with four Métis groups located in Alberta and the Northwest Territories and two Métis organizations in B.C, Tsay Keh Dene Band and Kwadacha First Nation, other Treaty 8 First Nations in B.C. and downstream of the Project. Those include Treaty 8 First Nations in Alberta, in proximity to the Peace River Watershed, and those in proximity to the Slave River through Alberta and into the Northwest Territories. Consultations with Aboriginal groups located away from the Project activity zone have focused on the potential downstream changes resulting from the Project.

⁸⁵⁵ BC Hydro, *supra* note 841 at vol 1, sec 9, appendix H, at 45-46.

⁸⁵⁶ *Ibid.* at 11.

⁸⁵⁷ *Ibid.* at 14, 15.

⁸⁵⁸ *Ibid.* at vol 1, sec. 9, appendix H, at 19 and 58. Indigenous communities expressed concerns about the potential effects of the Project on sediment transport: Concern about the effects of sedimentation on aquatic and terrestrial habitat arising from sedimentation in the reservoir and upstream rivers; and concern about the effects of sedimentation on fish due to change in downstream sediment load and riverbed mobilization and sediment transport.

⁸⁵⁹ *Ibid.* at 16, 213. Indigenous communities expressed concern about potential impacts of the Project on cultural fragmentation, loss of cultural identity, and destruction of traditional way of life.

release of mercury from the soil, contaminating the fish.⁸⁶⁰ These and other possible impacts that Indigenous peoples raised during the impact assessment process are of special concern, as they will affect their practices of hunting, fishing, trapping, and gathering.

Concerns about the biophysical impacts of Site C are related to the cumulative adverse effects when considering that oil and gas industry, forestry activities, and hydroelectric industry have been heavily exploring the region's natural resources for decades. Site C would contribute to a concurrence of the factors that affect water flows and water quality in the Peace River, and ecological impacts in the Valley.⁸⁶¹

This section provided an overview of the history of the Site C project and current discussions around it and the complexities that were involved in the Site C decision-making process especially when considering, the ongoing impacts of the W.A.C Bennett dam. BC Hydro has proposed the Site C project in the past and the province of BC, through the BCUC, has assessed and rejected it. The arguments in favor of Site C include the production of clean energy, not dependent on fossil fuels,⁸⁶² the creation of jobs and economic incentives for the region, and the existence of significantly high sunk costs, which would support the need to complete the project. Arguments against the dam relate to the flooding of a rare ecosystem, the project's allegedly purpose of electrifying the fossil fuel industry, and the existence of alternative sources of energy, such as solar and wind power, that could supply for the energy demand in the province. This section also indicated the role of Site C in cumulative ecological impacts by the industrial activities in the Northeast region of BC, and specifically in the Peace Region. The next section focuses on the legal and regulatory regime, including environmental impact assessment laws and policies and Aboriginal and treaty rights, pursuant to the Site C assessment and decision-making process.

2. Overview of the Legal and Regulatory Regime Applicable to the Site C Case Study

This section provides a brief overview of the legal and regulatory regime as relevant to understanding and analysing the Site C assessment and decision-making. This section begins with the characterization of the division of powers between provincial and federal governments, followed by constitutional principles regarding Aboriginal and Treaty rights, and environmental law and impact assessment. This organization differs from the one in chapter four, on the Belo Monte case study, as the constitutional regime in the Brazilian and Canadian Law are significantly distinctive. Environmental law and Indigenous law in

⁸⁶⁰ *Ibid.* at vol 1, sec 9, appendix H, at 60. Indigenous communities expressed concern that the perceived risk, observed change and advisories related to bioaccumulation of mercury in fish would likely reduce harvesting and consumption of fish from the reservoir, and result in reduced confidence in fish as a food source, due to the perception of high levels of mercury.

⁸⁶¹ Booth, "Northern Environmental Justice", *supra* note 66; Booth & Skelton, *supra* note 842.

⁸⁶² Similar to the Belo Monte case study in Brazil, in BC and Canada the climate change discourse had reinforced the push back against fossil fuel forms of energy, and (re)characterized hydro as a "green" alternative. See, for e.g., Scott & Smith, "'Sacrifice Zones' in the Green Energy Economy", *supra* note 33; Bratman, "Passive revolution in the green economy", *supra* note 531.

Brazil have its foundation in the written federal constitution. In the Canadian regime, while Aboriginal law is substantiated on the written constitution and case law, environmental law has been developed over the last two decades through court decisions. For this reason, this chapter contains a description of Aboriginal law, as relevant to the Site C case study, followed by a characterization of environmental law, in a different order than they appear in chapter four.

2.1. Constitutional division of powers

The Canadian constitution divides the legislative and executive powers between provincial and the federal jurisdictions. On the one hand, section 91 of the *Constitution Act, 1867* grants jurisdiction to the federal parliament to legislate on matters related to seacoast, inland fisheries, Indians and Indian reserves,⁸⁶³ as well as any matters not under the classes of subjects assigned exclusively to the provinces, for the Peace, Order and Good Government (POGG) of Canada.⁸⁶⁴ Provinces, on the other hand, may exclusively legislate on certain matters that affect the environment, such as the management and sale of the public lands belonging to the Province and of the timber and wood thereon (s. 92(5)); local works and undertakings (s. 92(10)); property and civil rights in the Province (s. 92(13)); and all matters of a merely local or private nature in the Province (s. 92(16)). More specifically regarding hydropower, provinces may also exclusively legislate regarding the development, conservation, and management of sites and facilities in the province for the generation and production of electrical energy (s. 92A(c)).⁸⁶⁵

Public lands in Canada and the resources associated with those lands are generally of the property of the provinces. However, provincial heads of power face some limitations in regards to exclusive or concurrent federal jurisdiction over matters that overlap. Indian reserves, for instance, are federal lands, therefore, under the jurisdiction of the federal government. Issues affecting Indigenous peoples are under the authority of the federal government as well. As a result, the most common representation for the relationship between provincial and federal jurisdiction over environmental matters is a “patchwork of federal powers superimposed on a carpet of provincial powers.”⁸⁶⁶ The federal parliament may legislate based on the Peace, Order, and Good Government (POGG) on residual power over matters that were not assigned to the exclusive jurisdiction of either level of government.⁸⁶⁷ More specifically, the *Constitution Act, 1982*, in section 35, recognizes and

⁸⁶³ Although the term ‘Indian’ is considered inappropriate to refer to Indigenous peoples in Canada it is still used in the Canadian Law, as it is considered a legal term.

⁸⁶⁴ *Constitution Act, 1867 (UK)*, 30 & 31 Victoria, c 3, reprinted in RSC 1985, Appendix II, No 5. at S. 91.

⁸⁶⁵ *Ibid.*

⁸⁶⁶ Meinhard Doelle & Chris Tollefson, *Environmental Law. Cases and Materials*, 2nd ed (Toronto: Carswell, 2013) at 166, 167.

⁸⁶⁷ *Ibid.* at 169.

affirms Aboriginal and treaty rights, including rights established through historic and modern land agreements.⁸⁶⁸

2.2. Aboriginal Constitutional and Treaty rights

When a proposed infrastructure project potentially affects Indigenous peoples and reserves, the Crown must observe Canadian law in Constitutional Aboriginal and Treaty rights, as defined by section 35 of the *Constitution Act, 1982*,⁸⁶⁹ and the case law.⁸⁷⁰ The *Delgamuukw* Supreme Court decision made explicit that the purpose of s. 35 is to reconcile the prior presence of Aboriginal peoples in the territory that is now known as Canada with the assertion of the Crown sovereignty, by recognizing and affirming the prior occupation of land by Aboriginal peoples and the prior social organization and distinctive cultures of Aboriginal peoples on that land.⁸⁷¹ This section contains a brief summary of Canadian Courts' attempts to interpret the rights established in section 35 under the light of the Crown sovereignty.⁸⁷²

The *Sparrow*, *Badger*, and *Mikisew Cree First Nation* decisions are particularly relevant in aspects regarding historic Treaty rights. In the *Sparrow* case, the question before the Supreme Court of Canada was whether the Musqueam had an ancestral right to fish and, if so, whether that right had been “extinguished” (or overturned) by federal legislation, such as the *Constitution Act, 1982*.⁸⁷³ The Canadian Supreme Court's decision established a test to interpret section 35 of the *Constitution Act, 1982*, especially relevant to treaties and land claim agreements. The first part of the test asks: “Has a right been infringed on?” A right has been infringed if the Crown imposes an “undue hardship” on First Nations, if the court considers this an “unreasonable” hardship, and if the Crown denies the right holders “their preferred means of exercising that right.” The second part of the test asks: “What might justify an infringement on an Indigenous right?” The infringement might be justified if the infringement serves a “valid legislative objective,” such as “conserving and managing a natural resource”; if it involves “as little infringement as possible” to achieve the intended result; if it is for expropriation and “fair compensation,” and if the government has

⁸⁶⁸ *Constitution Act, 1982*, *supra* note 200 at s.35.

⁸⁶⁹ *Ibid.*

⁸⁷⁰ For this reason, Aboriginal rights are referred to as a ‘burden on the title of the Crown.’ For more information on case law and Aboriginal rights in Canada see John Borrows & Leonard Ian Rotman, *Aboriginal legal issues: cases, materials & commentary*, fifth edition ed (Toronto, Ontario: LexisNexis Canada, 2018).

⁸⁷¹ *Delgamuukw v British Columbia*, [1997] 3 SCR 1010 at para 141.

⁸⁷² This section aims at describing the state law concerning Indigenous people (Aboriginal law). In referring to section 35 of the *Constitution Act, 1982*, and the case law that assumes the Crown sovereignty over all Canadian territory, I am merely describing the state law, not engaging with the argument or personally taking the same position. Later in the chapter, some of the results from participants' interviews will refer to Indigenous laws, which relate to the diverse and immemorial legal orders of different Indigenous Nations and communities.

⁸⁷³ *R v Sparrow*, [1990] 1 SCR 1075.

consulted with the Indigenous groups in question about conservation measures being implemented.⁸⁷⁴

In the *Sparrow* case, the sovereignty of the Crown was never questioned. Instead, the court addressed the issue of how the Crown, who holds a fiduciary position (a position of responsibility for protecting Indigenous peoples) should exercise its powers over the interests of Aboriginal communities.⁸⁷⁵ According to Gordon Christie,

“[i]n *R. v. Sparrow*, the Court placed this entire structure under the tent of fiduciary doctrine, finding that when the Crown attempts to exercise its powers in relation to Aboriginal rights-holders it must be seen to thereby occupy a fiduciary position... Crown power must be tempered with a sense of Crown responsibility.”⁸⁷⁶

The *R. v. Badger* decision is especially pertinent to the Site C case study as it deals with Aboriginal rights in the Treaty 8 territory. Through an Aboriginal Treaty, competing claims of authority, the colonial state, and Indigenous Nations agree to recognize some measure of the authority of the other.⁸⁷⁷ In the decision, the Supreme Court of Canada addressed the questions of whether status ‘Indians’ have the right to hunt for food on privately owned land lying within a tract ceded by Treaty, whether the hunting rights were extinguished or modified by Natural Resources Transfer Agreement (NRTA),⁸⁷⁸ and whether licensing and game limitations apply to status “Indians,” under section 35 of the *Constitution Act, 1982*.⁸⁷⁹ The Canadian Supreme Court established Treaty interpretation principles, which include: Treaties are sacred, solemn agreements between First Nations and the Crown; the honour of the Crown is always at stake; any ambiguities in the Treaty will be resolved in favour of the First Nations; any restrictions of rights under the Treaty will be narrowly construed; the onus of proving rights under the Treaty have been extinguished lies on the Crown; treaties must not be interpreted in a strictly technical sense but rather in the sense

⁸⁷⁴ *Ibid.*

⁸⁷⁵ The fiduciary duty is commonly defined as the Crown’s obligation to negotiate in good faith with Indigenous peoples. The concrete circumstances of each case will determine the extent of the duty. The fiduciary duty is applicable when considering that the power of the Crown is assumed to dominate. For more information on the limitations and uncertainties related to the concept of fiduciary duty, see, e.g., Peter W Hutchins, David Schulze & Carol Hilling, “When Do Fiduciary Obligations to Aboriginal People Arise” (1995) 59:1 Sask L Rev 97–138; Michael Coyle, “Loyalty and Distinctiveness: A New Approach to the Crown’s Fiduciary Duty toward Aboriginal Peoples” (2002) 40:4 Alta L Rev 841–866; Leonard I Rotman, “Crown-Native Relations as Fiduciary: Reflections almost Twenty Years after Guerin Aboriginal Rights” (2003) 22 Windsor YB Access Just 363–398.

⁸⁷⁶ Gordon Christie, “Indigenous Authority, Canadian Law, and Pipeline Proposals” (2013) 25 Journal of Environmental Law and Practice 189–215 at 205.

⁸⁷⁷ Patrick Macklem, “Indigenous Peoples and the Ethos of Legal Pluralism in Canada” in Patrick Macklem & Douglas Sanderson, eds, *From recognition to Reconciliation* (Toronto: University of Toronto Press, 2016) 17. at 28.

⁸⁷⁸ *R v Badger*, [1996] 1 SCR 771. The NRTA transferred responsibility for game laws from the federal government to the provincial governments. In doing so, it also conferred the power to apply conservation laws to status ‘Indians’ in order to protect game and fish supplies. The NRTA does not apply to British Columbia provincial territory.

⁸⁷⁹ *Ibid.*

that the First Nations would have understood them at the time of the signing; and verbal promises made by commissioners during negotiations are useful in treaty interpretation.⁸⁸⁰

In *Mikisew Cree First Nation v. Canada (Minister of Canadian Heritage)*, 2005, the Crown had argued that the “taking up” of land for the construction of a winter road did not infringe a right to hunt across Treaty 8 territory. The Supreme Court of Canada decided that First Nations’ “meaningful right to hunt” is in relation to the specific territories over which a First Nation traditionally hunted, fished and trapped, and continues to do so today.⁸⁸¹ However, the Court also held that the “continuity in traditional patterns” does not mean a “continuity of nineteenth century patterns of land use,”⁸⁸² signaling that Treaty interpretation is open to change regarding the areas where First Nations exercise their Treaty rights.

The *Haida Nation*, the *Taku River*, and the *Gitxaala Nation* decisions are particularly relevant in aspects related to the Crown’s duty to consult and accommodate Indigenous peoples’ interests and concerns. The *Haida Nation v. British Columbia (Minister of Forests)* decision established the Crown’s duty to consult and accommodate Aboriginal concerns and interests, based on the principle of the honour of the Crown, even though it did not establish an obligation to reach an agreement with Indigenous Peoples. When the Crown has knowledge of actual or potential aboriginal claim or right and that the Crown’s conduct may adversely affect an aboriginal claim right, it must consult and accommodate appropriately to the gravity of the potential harm to Aboriginal right.⁸⁸³ Based on the *Taku River Tlingit First Nation v. BC (Project Assessment Director)* decision, the duty to consult and accommodate can be fulfilled in environmental assessment processes.⁸⁸⁴ In the *Gitxaala Nation v Canada, 2016*, the Canadian Supreme Court held that, even though the Crown owes the obligation to deeply consult with First Nations about the Northern Gateway project, the government actually took a rushed approach in phase four of the environmental assessment, not engaging with the Nations in a meaningful way, and not providing reasons for the decision. The court signaled that consultation should not be a mere “note-taking” process but a dialogue on the matters of the substance of the decision about a project.⁸⁸⁵

The *Tsilhqot’in Nation v. British Columbia* case, despite dealing with the specific question of Aboriginal title, also provides elements for understanding the issue of Free, Prior, and Informed Consent (FPIC). In the decision, the Supreme Court of Canada ruled that “[o]nce Aboriginal title is established, section 35 of the *Constitution Act, 1982* permits incursions

⁸⁸⁰ *Ibid*; Team Reconcili-Action YEG, “Case Briefs: R v Badger”, (9 October 2018), *University of Alberta Faculty of Law Blog* (blog), online: <<https://ualbertalaw.typepad.com/faculty/2018/10/case-briefs-r-v-badger.html>>.

⁸⁸¹ *Mikisew Cree First Nation v Canada (Minister of Canadian Heritage)*, [2005] 3 SCR 388 at para 48.

⁸⁸² *Ibid.* at para 32.

⁸⁸³ *Haida Nation v British Columbia (Minister of Forests)*, *supra* note 329.

⁸⁸⁴ *Taku River Tlingit First Nation v British Columbia (Project Assessment Director)* 2004 SCC 74, [2004] 3 SCR 550.

⁸⁸⁵ *Gitxaala Nation v Canada* 2016 FCA 187, [2016] 4 FCR 418.

on it only with the consent of the Aboriginal group or if they are justified by a compelling and substantial public purpose and are not inconsistent with the Crown's fiduciary duty to the Aboriginal group."⁸⁸⁶ Some argue that this decision provides a legal foundation for requiring consent from any Indigenous community (not only title holders) before the decision-making regarding natural resources developments.⁸⁸⁷ Although the UNDRIP recognises FPIC,⁸⁸⁸ it is not yet an explicit legal principle in Canada, as it has not yet been incorporated into federal domestic law.⁸⁸⁹ The Province of British Columbia is working to apply UNDRIP to its laws. The Province has enacted the Declaration on the Rights of Indigenous Peoples (DRIPA);⁸⁹⁰ however, it is still uncertain how DRIPA will be implemented in practice. At this point, in Canada, the right to consultation and accommodation of Indigenous peoples' interests substantiates Aboriginal rights in Canadian law. Although Canadian courts have not so far considered UNDRIP a binding and enforceable document in cases regarding the duty to consult, they have recognised its role in interpreting Canadian laws.⁸⁹¹ This case is significant to the Site C decision-making, considering that some of the First Nations affected explicitly denied consent to the project during the environmental assessment, and that Canada and BC have been discussing the implementation of FPIC through federal and provincial frameworks.⁸⁹²

This subsection provided a brief overview of the constitutional law in regards to Indigenous rights in environmental assessment of natural resources development projects, including the obligation for the Crown to consult with Indigenous peoples and accommodate their interests. The Canadian Constitution recognises and affirms Aboriginal and Treaty rights, and court case decisions have provided tools for interpretation of those rights in environmental decision-making processes. Those tools encompass a test for Treaty rights infringement, in the *Sparrow* decision, principles for Treaty rights interpretation in the

⁸⁸⁶ *Tsilhqot'in Nation v British Columbia*, [2014] 2 SCR 256 at para 2.

⁸⁸⁷ Nosek, *supra* note 82.

⁸⁸⁸ UNDRIP, *supra* note 111.

⁸⁸⁹ Canada endorsed UNDRIP in 2016. Because the country has a dualist approach to international law, all international instruments endorsed or signed by the executive branch of the government must be legislated by the Parliament in order to become legally binding. At the time of this draft, Bill C-262 to implement UNDRIP as Canadian law had passed its third reading in Senate, but the conservative caucus expressed concerns regarding aspects of free, prior, and informed consent. The government of Canada introduced a new bill in December 2020, Bill-15, to affirm the Declaration as a universal international human rights instrument with application in Canadian law. Canada, Bill C-262, *An Act to ensure that the laws of Canada are in harmony with the United Nations Declaration on the Rights of Indigenous Peoples*, 1st session, 42nd Parl, 2018 (third reading on 30 May 2018); Canada, Bill C-15 *An Act respecting the United Nations Declaration on the Rights of Indigenous Peoples*, 2nd session, 43rd Parl, 2020 (first reading on 3 December 2020).

⁸⁹⁰ DRIPA, *supra* note 359.

⁸⁹¹ *Nunatukavut Community Council Inc v Canada (Attorney General)* 2015 FC 981; *Taku River Tlingit First Nation v Canada (Attorney General)* 2016 YKSC 7.

⁸⁹² Department of Justice Government of Canada, "Principles respecting the Government of Canada's relationship with Indigenous peoples", (14 July 2017), *Department of Justice of Canada* (website), online: <<https://www.justice.gc.ca/eng/csj-sjc/principles-principes.html>>; British Columbia, "A New Path Forward", (2019), *British Columbia* (website), online: <<https://declaration.gov.bc.ca/>>.

Badger decision, and principles for consultation and accommodation in *Haida*, *Taku River*, *Gitxaan*, and *Tsilhqot'in* decisions.⁸⁹³

2.3. Environmental law

In the Canadian Constitution, environmental matters are not listed under the jurisdiction of one specific head of power but are under shared jurisdiction between provincial and federal heads of power. Even though both the Canadian Parliament and provincial legislatures responsible for making laws regarding specific aspects of the environment, some situations entail an overlapping of jurisdictions to act in relation to the environment. The *Friends of the Oldman River* Canada Supreme Court decision provided light to the issue of overlapping jurisdictions by holding that the ‘environment’ is not an independent matter of legislation under the *Constitution Act, 1867*, but touches upon several of the heads of power assigned to the respective levels of government: “The environment is a diffuse subject matter and, subject to the constitutional imperatives, the potential consequences for a community’s livelihood, health and other social matters from environmental change, are integral to decision making on matters affecting environmental quality.”⁸⁹⁴

The implementation of a hydropower project may generate a series of socio-ecological effects that require the action of more than one jurisdiction, such as the logging activity to clear the land, the water allocation for the dam, the effects on fisheries and navigability, and effects on Indigenous peoples and lands. Local projects will generally fall within provincial responsibility, but the federal government must intervene if the project impinges on an area of federal jurisdiction.⁸⁹⁵ Water, for instance, is generally under the provincial jurisdiction by virtue of s.109 of the *Constitution Act, 1867*, but water in federal lands, such as Indian reserves, is of federal jurisdiction by virtue of s. 108 of the *Constitution Act, 1867*.⁸⁹⁶ Provincial laws regulate licences for water allocation for power generation purposes. Under the BC *Water Sustainability Act*,⁸⁹⁷ proponents must obtain a licence for works required for the proper diversion or use of the water or the power generation.⁸⁹⁸ The clearing of vegetation for the construction and flooding of the dam requires the proponent to acquire a licence to cut under the provincial *Forest and Range Practices Act* and regulation.⁸⁹⁹ Impacts on fish and fish habitat require the application of the Canadian

⁸⁹³ Even though these Canadian Supreme Court decisions are representative of the legal issues relevant to the Site C case study, other decisions may also provide interesting details on the duty to consult and accommodate such as the *Clyde River (Hamlet) v Petroleum Geo-Services Inc* 2017 SCC 40, [2017] 1 SCR 1069; *Tsleil-Waututh Nation v. Canada (Attorney General)* 2018 FCA 153, *supra* note 335.

⁸⁹⁴ *Friends of the Oldman River Society v Canada (Minister of Transport)*, [1992] 1 SCR 3.

⁸⁹⁵ *Ibid.*

⁸⁹⁶ *Burrard Power Co v The King*, [1910] 43 SCR 27; *Constitution Act, 1867 (UK)*, *supra* note 864 at ss. 108, 109.

⁸⁹⁷ *Water Sustainability Act*, SBC 2014, c 15.

⁸⁹⁸ *Ibid.* at s.7.

⁸⁹⁹ *Forest & Range Practices Act*, SBC 2002, c 69.

Fisheries Act.⁹⁰⁰ Moreover, impacts on Indigenous peoples and reserves trigger federal jurisdiction and the application of section 35 of the *Constitution Act, 1982*.⁹⁰¹

The next subsection will deal specifically with legal and regulatory aspects of environmental/impact assessment of reviewable projects and activities that may cause potential significant adverse effects, considering, in particular, the overlap of matters under federal and provincial jurisdictions.⁹⁰²

2.4. Federal and provincial impact assessment regulatory frameworks

This subsection contains a brief description of the environmental assessment laws and policies, by the provincial and the federal governments, mainly focusing on the cooperative process between the province of BC and Canada, through expert review panels. This subsection focuses on the *Canadian Environmental Assessment Act, 2012*, and the BC *Environmental Assessment Act, 2002* because these were the legislative schemes that regulated and informed the Site C impact assessment and decision-making. However, new federal legislation, the *Canadian Impact Assessment Act, 2019*, came into force in August 2019, and the *Environmental Assessment Act, 2018* came into force in BC on December 16, 2019.⁹⁰³ In chapter six, the analysis chapter of the dissertation, I address how the new federal and provincial frameworks deal with the issues that the interviewees indicated as problematic.⁹⁰⁴

The Supreme Court of Canada's decision on the *Friends of the Oldman River Society* case described the purpose of environmental assessment as a planning tool: "[I]t has both an information-gathering and a decision-making component which provide the decision maker with an objective basis for granting or denying approval for a proposed development."⁹⁰⁵ In Canada, environmental assessment has a vital role in democratic

⁹⁰⁰ *Fisheries Act*, RSC 1985, c F-14.

⁹⁰¹ *Constitution Act, 1982*, *supra* note 200 at s. 35.

⁹⁰² This section addresses jurisdiction as defined in the Canadian Constitution. However, there is growing literature and a general understanding that Indigenous peoples also hold jurisdiction over aspects related to their territory. This is more clearly established in modern land claim agreements. See more on the issue of Indigenous jurisdiction in Shiri Pasternak, "Jurisdiction and Settler Colonialism: Where Do Laws Meet?" (2014) 29:2 Canadian Journal of Law and Society; Cambridge 145-161.

⁹⁰³ *Canada Impact Assessment Act*, SC 2019, c 28, s 1; *Environmental Assessment Act*, SBC 2018, c 51.

⁹⁰⁴ In regards to terminology, I use the term 'environmental assessment', as described in the 2012 federal legislation, even though in the dissertation as a whole, I use the terms 'environmental assessment', 'impact assessment', and 'environmental impact assessment' interchangeably, considering that a review of any project or activity also involves other aspects beyond 'environmental' matters. The new federal legislation, the *Canadian Impact Assessment Act, 2019* uses the term 'impact assessment' replacing the term 'environmental assessment' of the *Canadian Environmental Assessment Act, 2012*. In British Columbia, the *Environmental Assessment Act, 2018* maintains the use of the term 'environmental assessment', as in the *Environmental Assessment Act, 2002*.

⁹⁰⁵ *Friends of the Oldman River Society v. Canada (Minister of Transport)*, *supra* note 894 at 71.

accountability and evidence-based decision-making.⁹⁰⁶ Environmental assessment is more than evaluating biophysical changes; rather, it encompasses the analysis of the potential consequences of a designated project or activity for a community's livelihood, health, and other social matters, considering that those are integral to decision-making.⁹⁰⁷ Depending on the environmental matters that specific projects are expected to affect, they will either require an assessment by the provincial government, by the federal government, or, in the case of projects that involve concurrent or overlapping jurisdictions, they may require a joint assessment in order to avoid unnecessary duplication of efforts by different heads of power.⁹⁰⁸

In regards to the provincial jurisdiction, the BC Environmental Assessment Office (BCEAO) is responsible for carrying out assessments under the *BC Environmental Assessment Act, 2002*.⁹⁰⁹ Specific regulation under the *BC Environmental Assessment Act, 2002*, defines which projects are reviewable and need to undergo an environmental assessment. The Reviewable Projects regulation under that statute categorizes projects according to size, production or storage capacity, timing, geographical location, potential for adverse effects, type of industry to which the projects are related, and type of proponent.⁹¹⁰ This regulation defined hydroelectric power plant as “a facility for the generation of electricity from the motion of water, or from the position or potential motion of water, and includes associated dams, diversion works, water conduits and all structures, machinery, appliances, fixtures and equipment.”⁹¹¹ A proposal of a hydroelectric power plant with a capacity of 50 MW or higher must go through an impact assessment process.⁹¹² However, even when a project is not listed as reviewable in the regulation, the BC Minister of Environment may decide that it must go through an environmental assessment when it presents the potential to cause significant environmental, social, economic, health, and heritage effects.⁹¹³ The BC Minister of Environment may enter into an agreement with Canada's Minister of Environment regarding any aspect of an environmental assessment to establish procedures to cooperatively conduct an environmental assessment of a project to avoid overlap and duplication of efforts.⁹¹⁴

⁹⁰⁶ Martin Z P Olszynski, “Environmental Assessment as Planning and Disclosure Tool: Greepeace Canada v. Canada (A.G.)” (2015) 38:1 Dalhousie LJ 207–236.

⁹⁰⁷ *Friends of the Oldman River Society v. Canada (Minister of Transport)*, *supra* note 894.

⁹⁰⁸ *Ibid.*

⁹⁰⁹ *Environmental Assessment Act*, SBC 2002, c 43 [Repealed by the Environmental Assessment Act, SBC 2018, c 51, s 81, effective December 16, 2019 (BC Reg 242/2019)].

⁹¹⁰ *Ibid*; *BC Reg 370/2002*, 2002. This regulation was repealed by BC Reg 243/2019, effective December 16, 2019.

⁹¹¹ *Ibid.* *BC Reg 370/2002* at s.9.

⁹¹² *Ibid.* at table 7.

⁹¹³ *Environmental Assessment Act*, *supra* note 909.

⁹¹⁴ *Ibid.* at s. 27(1) and 27(3). Under the *Environmental Assessment Act, 2012*, there were a variety of ways that cooperation between provinces and the federal government would take place. The federal Minister of Environment could decide to substitute a federal environmental assessment, on request of

The BC legislation also requires that proposed hydroelectric facilities undergo an assessment by the BCUC. According to the *BC Utilities Commission Act*,⁹¹⁵ “a person must not begin the construction or operation of a public utility plant or system, or an extension of either, without first obtaining from the commission a certificate that public convenience and necessity require or will require the construction or operation.”⁹¹⁶ This requirement is not an environmental assessment process, but an evaluation of the need for the energy and the adequacy of the costs and expected rates of electricity that a particular energy generation project requires.⁹¹⁷ This process provides an additional level of accountability and transparency to the review of hydro dam proposals, by taking into account ratepayer’s interests, as opposed to environmental adverse effects.

In regards to the *Canadian Environmental Assessment Act, 2012*,⁹¹⁸ The Canadian Environmental Assessment Agency (CEAA) is one of the federal authorities responsible for conducting environmental assessments, together with the National Energy Board (NEB) and the Canadian Nuclear Safety Commission (CNSC).⁹¹⁹ CEAA carries out assessments of designated projects with activities that are linked to the CEAA’s jurisdiction, including the construction and operation of a new hydroelectric generating facility with a production capacity of 200 MW or more.⁹²⁰ Assessments under the *Canadian Environmental Assessment Act, 2012* must consider impacts on fish or fish habitat, aquatic species, migratory birds, impacts on federal lands. In regards to Indigenous peoples, assessments must include impacts on health and socio-economic conditions, physical and cultural heritage, the current use of lands and resources for traditional purposes, or any structure, site or thing that is of historical, archaeological, paleontological or architectural significance (section 5(1)).⁹²¹ One of the purposes of the *Canadian*

the province, for the environmental effects of a designated project by the province, according to s. 32(1). The Minister could consider the provincial assessment as equivalent to a federal environmental assessment according to s. 37(1). And the federal and provincial governments could cooperate through a joint panel review, as was the case of the Site C process (s. 40(1)).

⁹¹⁵ *Utilities Commission Act*, RSBC 1996, C-473, *supra* note 788.

⁹¹⁶ *Ibid.* at s. 45

⁹¹⁷ *Ibid.* at s. 46

⁹¹⁸ *Canada Environmental Assessment Act*, SC 2012, c 19, s 52 [Repealed, 2019, c 28, s 9]. Even though the new *Impact Assessment Act, 2019* came into force during the drafting of this chapter, I address here the *Canadian Environmental Assessment Act, 2012*, considering that it was the statute in force during the review of Site C and was part of the legislative scheme that regulated the assessment of and decision-making about of the Site C project. In chapter six, I address how the new *Impact Assessment Act, 2019*, deals with the issues that the research participants raised in the interviews, which are represented in the data results section, in the second part of this chapter.

⁹¹⁹ *Ibid.* at s. 15. The new *Impact Assessment Act, 2019*, changed the name of the Canadian Environmental Assessment Agency to Impact Assessment Agency and the National Energy Board to the Canadian Energy Regulator.

⁹²⁰ *Ibid*; *Regulations Designating Physical Activities*, SOR/2012-147 (6 July 2012) at s. 15(d) and Schedule s. 2(c).

⁹²¹ *Canada Environmental Assessment Act*, *supra* note 918 at s. 5(1).

Environmental Assessment Act, 2012, was to “promote communication and cooperation with aboriginal peoples with respect to environmental assessments”⁹²²

In the project description, the proponent must define the valued components (VCs) of the assessment, which are the environmental biophysical or human features that may be impacted by a project.⁹²³ For each of the VCs, the proponent must define the spatial boundaries of the assessment, the local assessment area and the regional assessment area, taking into consideration the factors listed in the section 5(1) of the Canadian *Environmental Assessment Act, 2012*.⁹²⁴ The proponent must also define the spatial and temporal boundaries for a cumulative assessment of the effects of the project in combination with existing activities in the region.⁹²⁵

The Minister of Environment of Canada appoints an independent joint expert review panel when the designated project may cause significant adverse environmental effects; when there are public concerns related to these effects; and when there is a need for cooperation with provincial jurisdiction.⁹²⁶ The review panel conducts an environmental assessment of the designated project; holds hearings in a manner that offers any interested party an opportunity to participate in the environmental assessment; prepares a report that includes the review panel’s rationale, conclusions and recommendations (including mitigation measures and follow-up program), and a summary of any comments received from the public (including interested parties); and submits the report to the federal Minister.⁹²⁷

An environmental assessment by a joint review panel is one type of environmental assessment, conducted by a panel of individuals representing the federal and provincial jurisdictions, and appointed by agreement between the provincial and federal Ministers of the Environment. After the proponent submits the project and the CEAA assesses whether an environmental assessment is required, the government agencies responsible argue through the questions that must be addressed in the EIS and request the proponent to prepare the environmental impact statement guidelines, with comments from affected Indigenous groups, and refer the guidelines back to the proponent, who is responsible for carrying out the necessary studies. The government forwards the studies to the appointed review panel, which review the studies and conducts public hearings and consultation with Indigenous peoples. The panel members jointly prepare a report that is forwarded to the

⁹²² *Ibid.* at s. 4(1)(d).

⁹²³ Canada, Impact Assessment Agency, *Final Environmental Assessment Guidelines* (2018).

⁹²⁴ *Ibid.*

⁹²⁵ Canada, Impact Assessment Agency, *Assessing Cumulative Environmental Effects under the Canadian Environmental Assessment Act, 2012* (2014).

⁹²⁶ *Canada Environmental Assessment Act*, *supra* note 918 at s. 38.

⁹²⁷ *Ibid.* at s. 43.

federal and provincial Ministers of Environment, who make a decision whether to approve the project based on the findings of the review panel.⁹²⁸

The project review must take into consideration the environmental effects of the designated project, including any cumulative environmental effects that are likely to result from the project in combination with other physical activities; the significance of the effects; comments from the public; mitigation measures; the requirements of the follow-up program; the purpose of the designated project; alternative means of carrying out the project; any change that may be caused to the environment; and the results of any regional studies.⁹²⁹ The review may take into consideration community knowledge and Aboriginal traditional knowledge.⁹³⁰

Responsible authorities under the *Canadian Environmental Assessment Act, 2012*, including the Minister of Environment, after considering the report from the review panel, in cases of panel review, determine whether the designated project is likely to cause significant adverse environmental effects.⁹³¹ If the authority concludes that a project will likely generate significant adverse effects, they must refer the decision to the Governor-in-Council (Cabinet), who must decide whether those effects are justified in the circumstances.⁹³² If the Cabinet decides that the effects from the project are justified, they must refer it to the Minister of Environment, who will issue a decision statement, including conditions with which the proponent must comply.⁹³³ Also, considering the report from the review panel, the provincial Minister of the Environment may issue a certificate to approve the proposal with conditions for the operation.⁹³⁴

The next section contains a succinct description of how decision-makers, under the *Canadian Environmental Assessment Act, 2012*, must carry out consultation with Indigenous peoples, consider Aboriginal and treaty rights in impact assessment, and establish accommodation measures. The scheme below offers an overview of the environmental assessment process through cooperation between the provincial and federal governments.

⁹²⁸ Canadian Impact Assessment Agency, “Basics of Environmental Assessment”, (13 July 2012), *Canadian Impact Assessment Agency* (website), online: <<https://www.canada.ca/en/impact-assessment-agency/services/environmental-assessments/basics-environmental-assessment.html#panel01>>.

⁹²⁹ *Canada Environmental Assessment Act*, *supra* note 918 at s.19(1).

⁹³⁰ *Ibid.* at s.19(3).

⁹³¹ *Ibid.* at s. 52(1)(a).

⁹³² *Ibid.* at 52(2).

⁹³³ *Ibid.* at 53(1).

⁹³⁴ *Environmental Assessment Act*, *supra* note 909 at s. 17(3).

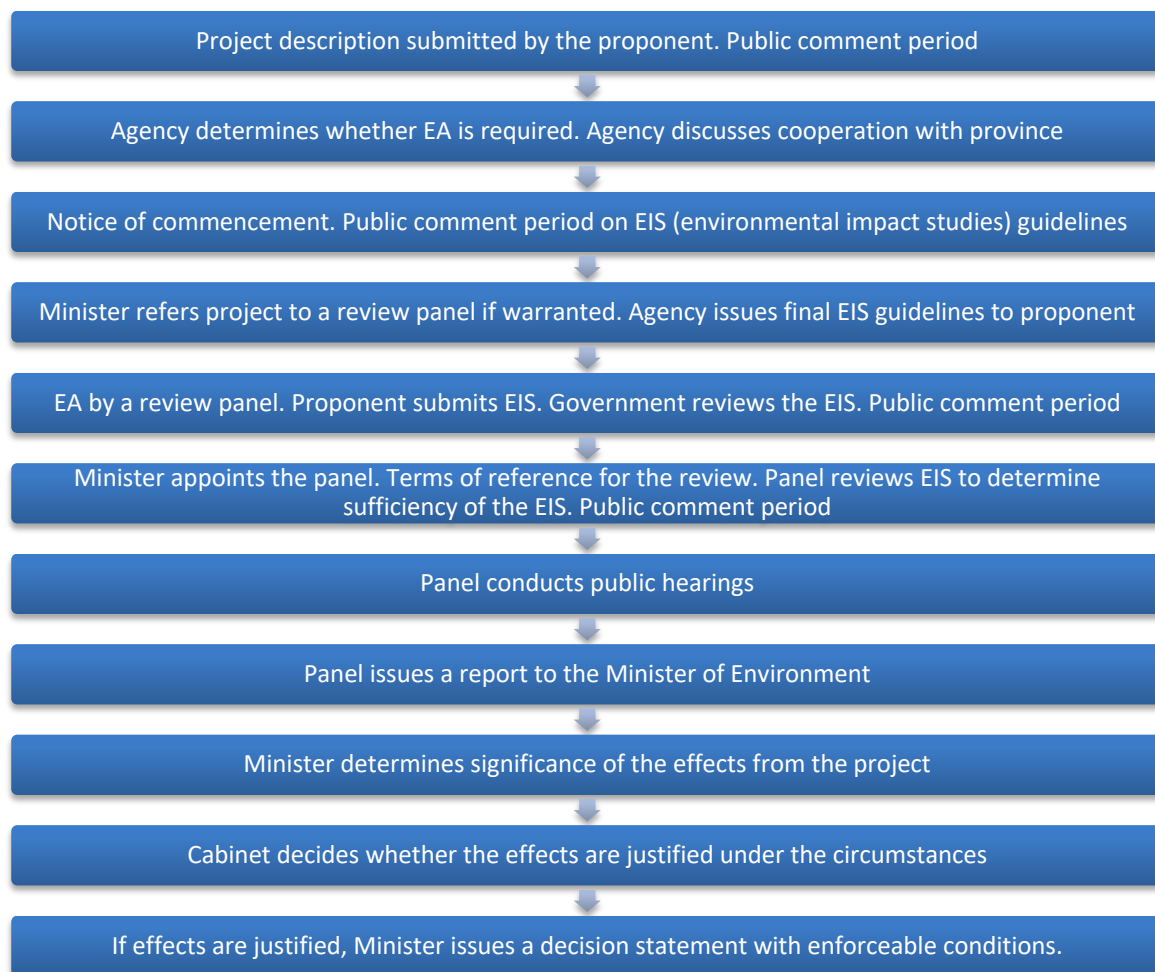


Figure 7 Environmental Assessment Process Managed by the Agency, according to the Canadian Environmental Assessment Act, 2012, with expert review panel.

This section contained a brief description of Aboriginal rights, environmental law, and the legal and regulatory framework of environmental assessment in Canada and BC, as pertinent to the Site C project review and decision-making. As mentioned, this chapter contains a characterization of the environmental assessment regime under the *Canadian Environmental Assessment Act, 2012*, and the *BC Environmental Assessment Act, 2002*, even though new laws have recently come into force. I decided to address the 2012 federal legislation and the BC 2002 legislation because they have regulated and informed the Site C assessment and decision-making. Nevertheless, in chapter six, I address the changes brought about by the new legal frameworks, as related to the aspects of the law that interviewees expressed were flawed or problematic.

The next section offers a summary of the process stages of the Site C project assessment and decision-making, including the role of BC Hydro in scoping the review and preparing environmental studies, the joint review panel in assessing the studies by BC Hydro and carrying out consultation and public hearings, and the Cabinet's decision-making.

3. Site C Environmental Assessment and Decision-Making

This section outlines the process of impact assessment of and decision-making about the Site C hydropower project. The section begins with an overview of the agreement between the Canadian and the BC Ministers of Environment to jointly conduct a review of the project, through the CEAA and the BCEAO. Next, the section lays out some of the main issues that Indigenous peoples raised during BC Hydro's initial consultations for preparation of the environmental impact statement (EIS), followed by the process of establishing a joint expert review panel to assess the EIS. The section also contains a description of the expert review panel's assessment process, focusing on public hearings and consultation meetings, as well as the issues and concerns that Indigenous communities brought up in their submissions. The section ends with an overview of some of the conclusions and recommendations most related to Indigenous communities' concerns, and the decisions by the Governor in Council and the provincial and federal Ministers of Environment.

Site C project will generate significant adverse effects over matters of shared or overlapping jurisdiction between provincial and federal heads of power. For this reason, the Canadian and the BC Ministers of Environment, in February 2012, established an agreement to conduct a cooperative environmental assessment, including the establishment of a joint expert review panel.⁹³⁵ The agreement established that the Site C assessment is comprised of three stages: Pre-panel stage; joint review panel stage; and the post-panel stage.⁹³⁶ The next subsections will provide a brief overview of the process in each stage and some of the issues of Indigenous peoples' concern.

3.1. Pre-panel stage

In the pre-panel stage, the CEAA and BCEAO oversaw the preparation of the EIS Guidelines by BC Hydro, indicated necessary amendments, and determined when the EIS was ready for review by the joint review panel.⁹³⁷ In this stage, CEAA, BCEAO, and BC Hydro defined the Valued Components (VCs) of the Site C assessment, which include fish and fish habitat, greenhouse gas emissions, vegetation and ecological community, labour market, wildlife, regional economic development, agriculture, forestry, oil, gas, and energy, outdoor recreation and tourism, navigation, human health, heritage resources, community infrastructure and services, and the current use of land for traditional

⁹³⁵ Minister of the Environment Canada & Minister of the Environment British Columbia, *Amended Agreement to Conduct a Cooperative Environmental Assessment Including the Establishment of a Joint Review Panel, of the Site C Clean Energy Project* (Impact Assessment Agency, 2012). The original agreement was amended to establish that the *Canadian Environmental Assessment Act, 2012* applies to the joint review panel's assessment, despite the fact that the parties first came into agreement before the enactment of the *Canadian Environmental Assessment Act, 2012*.

⁹³⁶ *Ibid.*

⁹³⁷ *Ibid.* at s. 2.

purposes.⁹³⁸ For each VC, BC Hydro determined the spatial boundaries for the Local and the Regional Assessment Areas.

Even though Indigenous participants manifested interest in discussing aspects related to all VCs, the “current use of land for traditional purposes” was one aspect that spoke more directly to the effects of the project on Indigenous communities’ ways of life.⁹³⁹ For this VC, BC Hydro assigned the following key indicators: Indigenous communities’ current use of lands and resources for hunting, fishing, trapping, and other activities, including the location of the activity, the species targeted, and the traditional uses of the harvested animals.⁹⁴⁰ BC Hydro entered into agreements with Indigenous Nations to carry out community baseline reports for the Site C project’s Traditional Land Use Studies (TLUS).⁹⁴¹ Based on the information provided by communities BC Hydro established the boundaries for the local and regional assessment of the impacts of Site C on the use of land for traditional purposes, as described on the map below by the orange and light brown lines. Some Nations chose not to provide specific details on certain activities, and to assign confidentiality or buffer zones around information regarding certain sensitive areas.⁹⁴²

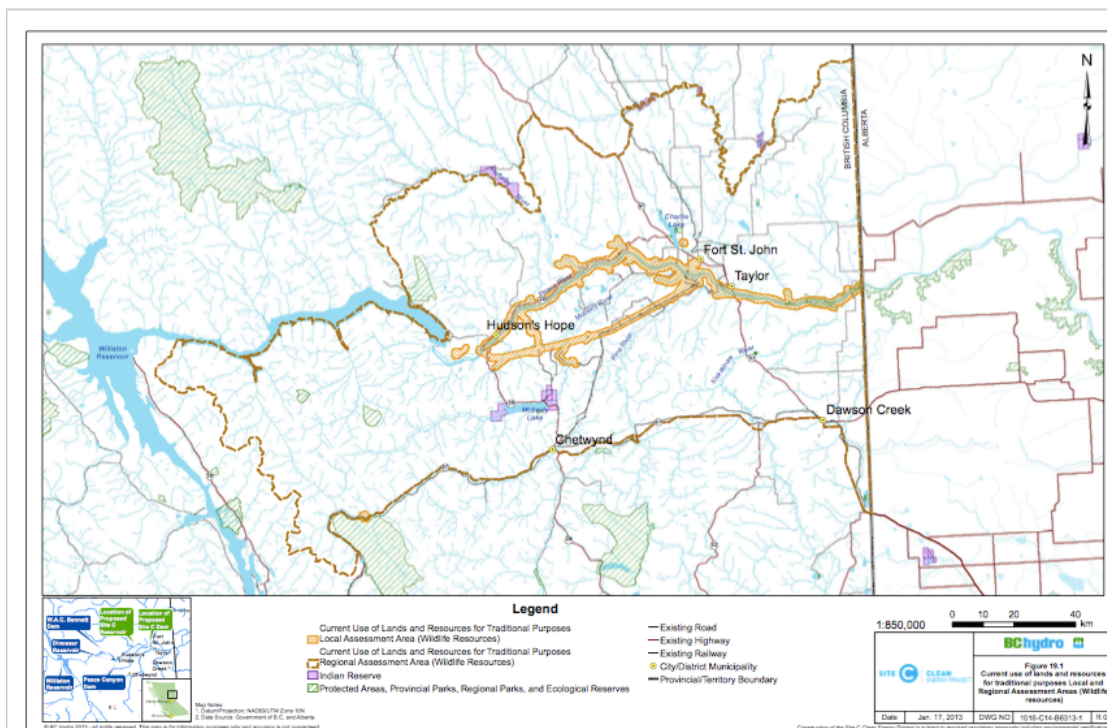
⁹³⁸ BC Hydro, *supra* note 841.

⁹³⁹ The purpose of the chapter is not to describe the Site C environmental assessment in detail, especially considering that BC Hydro and the expert review panel issued comprehensive studies and reports that portray some of the complexity of the issues regarding the dam and its decision-making process. This section is a brief overview of the engagement of Indigenous peoples in the processes, the concerns that they brought forward, and the review of those issues by the panel.

⁹⁴⁰ BC Hydro, *supra* note 841 at vol 3, sec 19, at 1.

⁹⁴¹ *Ibid.* at vol 3, sec 19, at 12.

⁹⁴² *Ibid.* at vol 3, sect 19, at 13.



Map 4: Current Use of Lands and Resources for Traditional Purposes. Source: BC Hydro.⁹⁴³

BC Hydro considered Site C's potential impacts on the exercise of Treaty rights of the following First Nations: Blueberry River First Nations, Dene Tha' First Nation, Duncan's First Nation Horse Lake First Nation, Saulteau First Nations, Doig River First Nation, Halfway River First Nation, Prophet River First Nation, and West Moberly First Nations, as well as eleven First Nations in Alberta and two in the Northwest Territories. Additionally, BC Hydro considered potential impacts on asserted constitutional rights of the Tsay Keh Dene Band and Kwadacha First Nation.⁹⁴⁴ For the purposes of the EIS, though, BC Hydro recognized as the "Project Area Aboriginal Groups" the Blueberry River First Nations, McLeod Lake Indian Band, Saulteau First Nations, Doig River, Halfway River, Prophet River and West Moberly First Nations. During the pre-panel stage, BC Hydro consulted with those Nations, as well as with the Tsay Keh Dene Band and Kwadacha First Nation and four Métis groups located in Alberta and the Northwest Territories. In addition, the CEAA directed BC Hydro to consult with two Métis organizations in B.C.⁹⁴⁵ BC Hydro negotiated agreements to provide funding for Aboriginal participation in the consultation process.⁹⁴⁶

⁹⁴³ *Ibid.* at vol 3, sec 19, figure 19.01.

⁹⁴⁴ *Ibid.* at vol 5 sec 34.

⁹⁴⁵ BC Hydro, *supra* note 781 at 16.

⁹⁴⁶ *Ibid.* at 17.

3.1.1. Indigenous communities' concerns recorded in the EIS

The EIS included the issues, concerns, and interests recorded in consultation with Indigenous communities during the pre-panel stage.⁹⁴⁷ Indigenous peoples asserted the ongoing impacts of the W.A.C. Bennett dam on their communities and lands and manifested their concerns with the impacts of the Site C project on their ability to exercise Aboriginal and Treaty rights.⁹⁴⁸ Among the impacts from the Bennett dam, Indigenous communities indicated the loss of hunting, fishing, and trapping grounds; loss of prehistoric and historic heritage resources; inundation of lands, homes, and burial sites; impacts on fish, wildlife, and vegetation; impacts on hydrology; sedimentation; loss of language; increase in social dysfunction.⁹⁴⁹ Some First Nations also asserted that the construction of the Bennett dam did not provide free or inexpensive electricity to First Nations. They also argued that there were no proper consultation and compensation for the effects of those projects on Indigenous peoples and that there is still a lack of dialogue with BC Hydro regarding past grievances related to the Bennett and Peace Canyon dams.⁹⁵⁰

Indigenous communities indicated that changes in the Peace River and the decrease of availability and health of fish, wildlife, and plant resources, due to development activities in the region (e.g. oil and gas) have impacted their ability to use the lands and resources of the Peace River basin for traditional purposes.⁹⁵¹ Specifically in regards to the Site C project, Indigenous communities expressed concern about the potential impacts on future generations and families, including the ability for the youth to sustain themselves and practice traditional activities; inter-generational respect and loss of time together for youth and elders; loss of educational areas for transfer of knowledge to the young; loss of land used for cultural camps to maintain the heritage of relationship between elders and youth; loss of opportunity for inter-band and family socialization and cultural exchange; lack of control or voice in future land use.⁹⁵²

Indigenous peoples also expressed concerns regarding the Site C project's potential contribution to the cumulative effects of development in the region, including past projects, pipelines, logging, oil and gas, coal mining, and coal bed methane. Some communities requested BC Hydro to make it clearer how it would conduct cumulative effects assessment at the regional planning level.⁹⁵³ Indigenous communities also indicated potential downstream effects of the dam on water flow and water levels, including in the Peace

⁹⁴⁷ This section does not aim at describing all the concerns and interests brought forth by Indigenous communities to the first stage of consultation. To obtain a full report of these, please refer to volume 1, section 9 or the EIS. The issues outlined here are examples of some of the concerns that were reaffirmed in the interviews with Indigenous participants.

⁹⁴⁸ BC Hydro, *supra* note 841 vol.1, sec. 9, appendix H.

⁹⁴⁹ *Ibid.* Vol 1, sec. 9, appendix H, at 223, 224.

⁹⁵⁰ *Ibid.* Vol 1, sec. 9, appendix H, at 223, 224.

⁹⁵¹ *Ibid.* at vol 3, sec 19, at 14.

⁹⁵² *Ibid.* vol 1, sec 9, appendix H, at 214.

⁹⁵³ *Ibid.* Vol 1, sec. 9, at 39.

River, Slave River, McKenzie River, Salt River, Great Slave Lake and the Peace-Athabasca Delta, and requested BC Hydro to extend the scope of the spatial boundaries for downstream studies to include all potential downstream effects, as far as the Peace-Athabasca Delta and/or the Great Slave Lake.⁹⁵⁴

Some First Nations indicated that BC Hydro completed the analysis of alternatives to the Site C project without proper consideration of First Nations values and land use. Therefore, they requested BC Hydro to demonstrate how it would incorporate First Nations' values and land use into the analysis of alternatives and to clarify BC Hydro's assumptions in determining hunting, fishing, trapping, gathering, mode of life, and other First Nation land use.⁹⁵⁵

3.1.2. Proposed mitigation measures

In response to some of the concerns of Indigenous communities, BC Hydro acknowledged that the project would impact the exercise of constitutional and treaty rights to hunt, fish and trap and proposed mitigation measures to accommodate communities. Some of those measures are to consider development of wildlife habitat compensation projects and fish habitat compensation projects; develop mitigation measures intended to decrease impacts on First Nation trap lines; develop a communications program to inform harvesters of planned or unplanned events related to construction activities that may affect harvesting plants, berries, and other resources, hunting and fishing opportunities or access; consider community-based monitoring programs; work with Aboriginal groups to identify potential sites for relocation of medicinal and food plants and to restore ecological communities that support species of high traditional use value.⁹⁵⁶

In accommodation for impacts on asserted constitutional and treaty rights, BC Hydro also proposed impact benefit agreements with Indigenous communities.⁹⁵⁷ Impact benefit agreements consisted of lump sum cash payments, payment streams over time, cash equivalents (e.g., commitments to investments in community infrastructure), special purpose funds (set aside amounts designed for initiatives such as education, training, heritage, or cultural projects), and the inclusion of provincial Crown lands.⁹⁵⁸ BC Hydro argued that those impact benefit agreements could accommodate "the potential impact on the exercise of treaty rights, further avoid, reduce, or compensate for the potential residual adverse effects of the Project on the current use of lands and resources for traditional purposes."⁹⁵⁹ Some Indigenous communities that participated in consultation at this pre-panel stage argued that BC Hydro's approach on the project was "an exclusively economic approach that is troubling and inconsistent with Treaty 8, the courts, and First Nations

⁹⁵⁴ *Ibid.* at vol 1, sec 9, appendix H, at 45, 46.

⁹⁵⁵ *Ibid.* at vol 1, sec. 9, appendix H, at 35.

⁹⁵⁶ *Ibid.* at vol 5, sec 34, at 18-20.

⁹⁵⁷ *Ibid.* at vol. 5, sec 34, at 22.

⁹⁵⁸ *Ibid.* at vol 5, sec 34 at 27, 28

⁹⁵⁹ *Ibid.* at vol. 5, sec 34 at 22.

views.” They recommended that land and watershed use planning for the Peace River region should be done in the context of ecological limits.⁹⁶⁰

In regards to consideration for cumulative effects of the dam in the EIS, BC Hydro argued that it was not reliable to predict the cumulative impacts that Site C would contribute to through a pre-development case, in other words, by analysing the effects of the dam as if there were no development in the area.⁹⁶¹ BC Hydro argued that

The area in the vicinity of the Project has been subject to a wide variety of relatively intense development activities for a long period of time... Creating a pre-development case for the Project would require hind-casting over a century. The resulting uncertainty would make the results meaningless for the purpose of an environmental assessment.⁹⁶²

As a result, in relation to spatial boundaries, BC Hydro excluded from the assessment any project or activity outside the Regional Assessment Area (RAA), arguing that the RAA was a conservatively large enough area. The RAA excluded any project or activity in Alberta beyond one hundred meters of the Peace River high water mark or further downstream than Fort Vermilion. Indigenous communities manifested their interest in expanding the regional assessment area for heritage resources to encompass the cultural landscape downstream of the proposed reservoir and dam.⁹⁶³ In relation to temporal boundaries, BC Hydro excluded from the assessment any operation or activity that was occurring prior to September 5, 2012.⁹⁶⁴ In finalizing the guidelines for the Site C Project, the CEAA and the BCEAO accepted BC Hydro’s position concerning the temporal and spatial boundaries for the cumulative effects assessment, based on BC Hydro’s position that there was insufficient data to prepare a pre-development baseline.⁹⁶⁵

In the next stage, the joint review panel, formed by three experts, one representing the province one the federal government and one in the chair position, was appointed to review the BC Hydro’s EIS, determine the sufficiency of the EIS, hold public hearings, and produce the joint review panel report.⁹⁶⁶

⁹⁶⁰ *Ibid.* at vol.1, sec. 9, appendix H, at 27.

⁹⁶¹ *Response to working group and public comments on the Site C Clean Energy Project Environmental Impact Statement. Technical Memo: Cumulative Effects Assessment*, by BC Hydro (Vancouver, B.C.: BC Hydro, 2013). Online: EAO
<<https://www.projects.eao.gov.bc.ca/api/document/5887c7ae69dfb5127bd3be46/fetch/Cumulative%20Effects%20Assessment.pdf>>.

⁹⁶² *Ibid.*

⁹⁶³ BC Hydro, *supra* note 841 at vol 1, sec.9, appendix H, at 195.

⁹⁶⁴ BC Hydro, *supra* note 961 at 9.

⁹⁶⁵ Bakker & Hendriks, “Contested Knowledges in Hydroelectric Project Assessment”, *supra* note 852 at 8.

⁹⁶⁶ Minister of the Environment Canada & Minister of the Environment British Columbia, *supra* note 935.

3.2. Joint review panel stage

In August 2013, the federal and provincial governments appointed a joint review panel to assess Site C based on consultation and public submissions, as well as the information that BC Hydro provided in the EIS.⁹⁶⁷ Terms of Reference for the review established that the panel had to consider certain aspects, in particular the need and alternatives for the project; alternative ways of carrying out the project that are technically and economically feasible, and the environmental effects of any such alternative means; the environmental, economic, social, health and heritage effects, including cumulative effects; any change that the project may cause in the environment on the current use of lands and resources for traditional purposes by Indigenous peoples; the significance of the environmental, economic, social, health and heritage effects; measures that would mitigate adverse environmental effects; comments from the public and Indigenous communities; and community knowledge and Aboriginal traditional knowledge.⁹⁶⁸ The terms of reference for the assessment also determined that the panel's review excluded any consideration for impacts on Aboriginal or Treaty rights.

[W]ill not make any conclusions or recommendations as to: a) the nature and scope of asserted Aboriginal rights or the strength of those asserted rights; b) the scope of the Crown's duty to consult Aboriginal Groups; c) whether the Crown has met its duty to consult Aboriginal Groups and, where appropriate, accommodate their interests in respect of the potential adverse effects of the Project on asserted or established Aboriginal rights or treaty rights; d) whether the Project is an infringement of Treaty No. 8; and e) any matter of treaty interpretation.⁹⁶⁹

Starting in December 2013, the joint review panel conducted twenty-six days of public hearings, including seven days of meetings in Indigenous communities. The panel did not provide a specific interpretation of 'directly affected individuals' but accepted participation of all people that submitted a comment on BC Hydro's EIS. After that, the panel had ninety days to reach their conclusions and write their report.⁹⁷⁰ The joint review panel concluded that the Site C project would cause significant adverse effects, including to Indigenous communities, and that some of the adverse effects are impossible to be mitigated. The panel made fifty recommendations.⁹⁷¹

⁹⁶⁷ Review Panel Established by the Federal Minister of the Environment and the British Columbia Minister of Environment, *supra* note 196 at iv.

⁹⁶⁸ *Ibid* at appendix 1 at 336-341.

⁹⁶⁹ Minister of Environment, British Columbia & Minister of Environment, Canada, *Agreement to Conduct a Cooperative Environmental Assessment, Including the Establishment of a Joint Review Panel, of the Site C Clean Energy Project* (2012) at appendix 1, Part II, s.2.5.

⁹⁷⁰ Review Panel Established by the Federal Minister of the Environment and the British Columbia Minister of Environment, *supra* note 196.

⁹⁷¹ *Ibid.* at iv, v.

3.2.1. Conclusions related to Indigenous peoples' use of the land and waters

Regarding the aquatic environment, the panel concluded that Site C would make small changes to the hydrology of the Peace River, but that those changes would be attenuated by the time the water flows reach the River at the Alberta side. The downstream extent of Site C's influence on the ice regime would be approximately 550 kilometres downstream of the dam site. The panel then recommended that operation conditions of the dam respect to a minimum flow a release of 390 cubic meters per second.⁹⁷² The panel also concluded that the project would result in "negligible changes to fluvial geomorphology and sediment transport" and that Site C would result in localized adverse effects on groundwater that would not be significant.⁹⁷³ The conclusions also indicated that there would be no effects on any aspect of the environment in the Peace Athabasca Delta (PAD), and a cumulative effects assessment on the PAD is not required.⁹⁷⁴

However, the Athabasca Chipewyan and Mikisew Cree First Nations argued in their submissions to the panel that Site C would cause the downstream effects related to potential changes to water flow rate and their effects on Treaty 8 rights, and that very small changes in water level in the PAD could result in massive changes in the microclimate and ecology of the area.⁹⁷⁵ Those two First Nations filed a complaint to the UNESCO World Heritage Centre, based on information from community-based monitoring programs, pointing to the importance of the PAD for the Wood Buffalo National Park and to the exercise of Treaty rights.⁹⁷⁶ Since 2008, those community-based programs have been using scientific methods and local Indigenous Knowledge to report on activities that may harm Indigenous peoples' traditional lands and resources in the PAD.⁹⁷⁷ First Nations associated with the Treaty 8 Tribal Association also manifested their concern to the joint review panel that, by excluding the Peace River tributaries downstream of Site C from the local assessment area (LAA), BC Hydro understated potential adverse effects on fish.⁹⁷⁸ They explain that a "number of fish species move between mainstream and tributary habitats, and BC Hydro

⁹⁷² Review Panel Established by the Federal Minister of the Environment and the British Columbia Minister of Environment, *supra* note 196 at recommendation 1.

⁹⁷³ *Ibid.* at 310.

⁹⁷⁴ *Ibid.* at 310, 311.

⁹⁷⁵ *Ibid.*

⁹⁷⁶ Mikisew Cree First Nation, *supra* note 816; UNESCO, *Analysis and Conclusion by World Heritage Centre and the Advisory Bodies in 2015 - Wood Buffalo National Park (Canada)* (N 256). at 17. The UNESCO Wood Buffalo National Park Reactive Monitoring Mission Report disagrees with conclusions from the Site C assessment: "Given the enormous complexity of both the effects of river regulation and the PAD itself, the mission respectfully disagrees with this simplistic approach. From a technical perspective, it is clear that there are important effects which should be understood to inform decision-making, including as regards mitigation options."

⁹⁷⁷ Mikisew Cree First Nation, "Community-based monitoring programs", *Mikisew Cree First Nation* (website), online: <<http://mikisewgir.com/cbm>>.

⁹⁷⁸ Minister of Environment Canada & Minister of Environment BC, *supra* note 972.

has not demonstrated that the Project's effects on downstream water levels and flows would not have a measurable effect on fish use of, or access to, tributary habitats."⁹⁷⁹

Regarding water quality, the panel recommended that BC Hydro consulted with Environment Canada, Natural Resources Canada and Ministries of Environment and Forests, Lands and Natural Resource Operations to design a program to monitor water quality.⁹⁸⁰ In relation to mercury contamination in particular, the panel concluded that potential changes are immitigable but that the biological effects of increased mercury are not significant.⁹⁸¹ Regarding the health of fish and fish habitat, the panel resolved that there would be a reduction to fish health and survival due to sedimentation and dissolved gas pressure during construction, reservoir filling, and operation, and that, despite proposed mitigation measures, the effects of the project on fish and fish habitat could not be mitigated.⁹⁸² The panel also found that the effects of the project to at-risk and sensitive ecological communities would be significant and that the project would have a significant adverse effect on wetlands, in particular valley bottom wetlands.⁹⁸³

Regarding specifically the use of land for traditional purposes by First Nations, the panel determined that BC Hydro did not assess the impacts of Site C on the plants of interest to Indigenous peoples and recommended that BC Hydro conducted a comprehensive assessment of effects on traditional plants in collaboration with Aboriginal groups in order to improve mitigation measures.⁹⁸⁴ The panel also concluded that the project will likely cause significant adverse effect on fishing opportunities and practices, on hunting and non-tenured trapping, and on other traditional uses of the land for First Nations and that these effects cannot be mitigated.⁹⁸⁵ In particular, the project would likely cause significant adverse cumulative effects on current use of lands and resources for traditional purposes.⁹⁸⁶ The panel recommended that the province set aside the hunting, fishing, and trapping rights on the Peace Moberly Tract, a critical area for local First Nations, for people holding Section 35 rights under the *Constitution Act, 1982*. The panel also recommended "the Province and affected First Nations enter discussions on the Area of Critical Community Interest with a view to the harmonious accommodation of all interests in this land."⁹⁸⁷

In regards to cumulative effects assessment, the panel disagreed with BC Hydro's assertion that there was limited information available to conduct a cumulative effects assessment. The panel indicated that it received numerous testimonies from Indigenous and non-

⁹⁷⁹ *Ibid.*

⁹⁸⁰ *Ibid.* at 31.

⁹⁸¹ *Ibid.* at 35.

⁹⁸² *Ibid.* at 52-55.

⁹⁸³ *Ibid.* at 63.

⁹⁸⁴ *Ibid.* at 69.

⁹⁸⁵ *Ibid.* at 103, 109, 113.

⁹⁸⁶ *Ibid.* at 120.

⁹⁸⁷ *Ibid.* at 121.

Indigenous participants about the effects of the Bennett and Peace Canyon Dams: “This information was provided first-hand (by people who were alive at that time) or second-hand (by participants who learned of the effects from previous generations).”⁹⁸⁸ The panel indicated there was “information in various formats such as air photos, environmental impact studies, research from various provincial and independent bodies, and historic maps of changing land tenure,” which could be used in the assessment.⁹⁸⁹

3.2.2. Impact Assessment and decision-making process

In regards to the process of assessment of Site C, the joint review panel recorded the opinion of Indigenous participants. The panel’s report states that “Aboriginal groups consider that the Site C review process has not been conducted in a spirit of shared decision-making” and that the assessment and decision-making about Site C excluded Collaborative Management Agreements in place between Indigenous and colonial governments.⁹⁹⁰ The panel stated that the agreements have been narrow and that there is a need for a comprehensive land use planning to prevent further unnecessary cumulative effects.⁹⁹¹

3.3. Post-panel stage

According to the agreement between the provincial and federal Ministers of Environment, the CEAA and BCEAO would coordinate public release of the Joint Review Panel Report and refer documentation to federal and provincial decision makers.⁹⁹² Based on the panel’s report, the federal and provincial Ministers of Environment concluded that the adverse effects from Site C were significant and referred the matter to the Governor-in-Council, who decided that the significant adverse effects were justified under the circumstances. The statement asserts that significant adverse effects exist but are “justified under the circumstances,” without explicitly outlining the justificatory components of the decision. Based on this decision, the federal Minister of Environment issued a decision statement approving Site C and listing licence conditions,⁹⁹³ and the BC Minister of Environment issued a certificate approving the project.⁹⁹⁴

⁹⁸⁸ *Ibid.* at 259.

⁹⁸⁹ *Ibid.* at 259.

⁹⁹⁰ *Ibid.* at 121, 122.

⁹⁹¹ Review Panel Established by the Federal Minister of the Environment and the British Columbia Minister of Environment, *supra* note 196; British Columbia, *Strategic Land and Resource Planning Agreement* (2009), *British Columbia* (website), online: <<https://www2.gov.bc.ca/gov/content/environment/natural-resource-stewardship/consulting-with-first-nations/first-nations-negotiations/first-nations-a-z-listing/prophet-river-first-nation-denetsaa-tse-k-nai>>. This is one of the few land use agreements in place between First Nations (Doig, Prophet River, and West Moberly First Nations) and the province of BC on Treaty 8 territory.

⁹⁹² Minister of the Environment Canada & Minister of the Environment British Columbia, *supra* note 935.

⁹⁹³ Canada, *supra* note 792 at 1, 2.

⁹⁹⁴ BC Environmental Assessment Office, *supra* note 792.

The federal Minister of Environment determined as the “Reservoir Area Aboriginal groups” (or the “Project Area Aboriginal Groups”, according to BC Hydro EIS) the Saulteau First Nations, Blueberry River First Nations, West Moberly First Nations, Doig River First Nation, McLeod Lake Indian Band, Halfway River First Nation and Prophet River First Nation. The “Immediate Downstream Aboriginal groups” are the Horse Lake First Nation, Métis Nation British Columbia, Kelly Lake Métis Settlement Society, Duncan’s First Nation and Dene Tha’ First Nation.⁹⁹⁵

Even though the criteria established by BC Hydro and the government agencies were very restrictive in relation to the physical and temporal aspects of the assessment, Indigenous peoples and other participants were able to provide a broad array of information on how Site C would affect Indigenous communities and their rights, through their submissions. Despite the constrained timeline and ability to assess impacts on constitutional and treaty rights, the joint review panel’s report was able to portray some of the disparate adverse effects of the dam on Indigenous peoples and indicate that some impacts were impossible to be mitigated.

The Decision Statement from the federal Minister of Environment adopted most of the joint review panel recommendations as conditions for the licence. However, many of the conditions set a more cooperative tone between the proponent and Indigenous Nations, and less of forcible measures. Condition 13.2, for instance, determines that “[t]he Proponent shall develop, in consultation with First Nations Health Authority, Northern Health, Reservoir Area Aboriginal groups and Immediate Downstream Aboriginal groups, a methylmercury monitoring plan” and condition 13.3 “The Proponent shall engage Reservoir Area Aboriginal groups and Immediate Downstream Aboriginal groups to identify and develop mitigation measures that could address impacts to current use of lands and resources for traditional purposes.”⁹⁹⁶

Similarly, conditions related to the traditional use of land establish a moderate mandate to the proponent, focused on conducting consultation with and providing information to Indigenous peoples, rather than on ensuring the protection of Indigenous communities’ ways of life. See for instance condition 14.2: “The Proponent shall inform Reservoir Area Aboriginal groups and Immediate Downstream Aboriginal groups about Designated Project activities that may affect the current use of lands and resources for traditional purposes including harvesting of plants, fish and wildlife and access to land for the purposes of those uses” and condition 14.3: “The Proponent shall develop, in consultation with Reservoir Area Aboriginal groups and the Métis Nation British Columbia, a plan to avoid, minimize or manage impacts to local archaeological and heritage resources.”⁹⁹⁷

The Site C decision-making process reveals how the government has ample discretionary powers to approve a project, even in the presence of significant adverse effects. As indicated by Bakker and Hendriks, even considering cases like Site C, with an

⁹⁹⁵ Canada, *supra* note 792.

⁹⁹⁶ *Ibid.* at 17.

⁹⁹⁷ *Ibid.* at 20.

unprecedented number of significant adverse effects, the conclusions from the joint review panel placed no constraint to the government's ability to authorize such projects.⁹⁹⁸ The government did not provide information about the framework used to justify the significant adverse effects of the Site C project. Richard Hendriks et al argue that the government justified the significant adverse environmental effects of Site C solely "based on the premise that the Project will deliver energy and capacity at lower GHG emissions and lower costs than the available alternatives."⁹⁹⁹ It is crucial to emphasize here that the basis for such a decision was a process designed to exclude consideration for infringement of Treaty and Aboriginal constitutional rights, as indicated in the terms of reference of the joint review panel appointment. Bruce Muir suggests that the higher-level strategic decisions about Site C, by the state Ministries, dismissed the procedural tools at a lower level, such as participation and consultation criteria, designed to improve EIA's effectiveness. Engagement of Indigenous nations in the design of policy, plans, and project tiers of strategic environmental assessments could have helped correct that deficiency of EIA.¹⁰⁰⁰

This section outlined the environmental assessment process of Site C, which was divided into three stages: The pre-panel stage, which included the preparation of BC Hydro's EIS and consultation with Indigenous communities; the joint review panel stage, which consisted of the work of the panel in reviewing the EIS and carrying out consultation with Indigenous peoples and evaluation of public submissions; and finally the post-panel stage, which consisted of the decision by the Ministers of Environment that the adverse effects of the project are significant, the decision by the Governor-in-Council that those adverse effects are justified under the circumstances, and the approval of the project with operation conditions. The assessment process encompassed a large number of documents, studies, and information from the public and Indigenous Nations, as well as a comprehensive review by the joint review panel. Despite the complexity of the information presented to the panel and the panel's conclusions that Site C would have significant adverse effects, some of them not possible to be mitigated, the cabinet's discretionary power allowed the project to go forward. Some First Nations disagree with the decision, especially arguing for the infringement of Treaty rights through a judicial review, an interlocutory injunction, and a civil lawsuit. The next section describes the arguments that First Nations presented in court in opposition to the project.

4. Site C in the Courts

Prophet River, West Moberly, and Blueberry River First Nations have been in the forefront of court challenges against industrial developments, claiming the disturbance of government's decisions over the exercise of their Treaty rights. Prophet River and West Moberly have opposed the decision to approve Site C, and Blueberry River has requested

⁹⁹⁸ Bakker & Hendriks, "Contested Knowledges in Hydroelectric Project Assessment", *supra* note 852.

⁹⁹⁹ Hendriks, Bakker & Raphals, *supra* note 799 at 11, 12.

¹⁰⁰⁰ Bruce R Muir, "Effectiveness of the EIA for the Site C Hydroelectric Dam Reconsidered: Nature of Indigenous Cultures, Rights, and Engagement" (2018) 20:4 Journal of Environmental Assessment Policy and Management 1850014-1-1850014-41. at 1850014-29.

a more comprehensive land use-planning framework to avoid indiscriminate approval of industrial projects in the region.

Prophet River and West Moberly First Nations sought, through a judicial review before the BC Supreme Court, an order to quash the certificate that approved Site C, under the argument that the project infringes their Treaty 8 rights and that the government had not justified that infringement. The court dismissed the judicial review under the reason that the infringement issue could not be determined in that proceeding because the “claim of infringement relies on matters that extend beyond the Project and the decision to issue the Certificate.”¹⁰⁰¹ The court also assumed that the Ministers of Environment, the decision-makers in the Site C process, fulfilled their statutory duty to decide in accordance with the relevant statutory authority and the principles of administrative law.¹⁰⁰² The First Nations appealed the decision and the BC Court of Appeal dismissed their appeal.¹⁰⁰³

Prophet River and West Moberly also sought an application for judicial review, before a federal court, based on the decision of the Governor-in-Council determining that the significant adverse environmental effects from Site C were justified under the circumstances. Similar to the provincial court, the federal court dismissed that application and the appeal.¹⁰⁰⁴ The First Nations argued that they sought judicial review of the certificate and the decision by the Governor-in-Council because administrative decision-makers, before issuing the approvals, should have decided on whether the Site C project infringed the petitioners’ Treaty rights. But both the provincial and federal courts held that discussions around unjustifiable infringement should be addressed in a separate action, and confirmed that a review panel has no power to address any matter of Treaty interpretation.¹⁰⁰⁵ The First Nations argued that there was no justification for infringing rights (particularly on the taking of land) and that the government failed to consult and accommodate with Indigenous peoples adequately. The Federal Court of Appeal established that it is not under the Cabinet’s jurisdiction to determine whether the project’s cumulative impacts amounted to an infringement of Treaty rights, concluding that environmental assessment is an information gathering process, not intended to determine Aboriginal or Treaty rights, and established that judicial review was not the proper forum to decide whether rights were justifiably infringed.¹⁰⁰⁶

¹⁰⁰¹ *Prophet River First Nation v. British Columbia (Environment)*, 2015 BCSC 1682, *supra* note 77 at para 139. The court considered the issue of Treaty or Constitutional rights infringement as distinctive from the administrative decision to approve a project. Therefore, the infringement should be argued in a separate lawsuit from the one that addresses the impact assessment and decision-making matters.

¹⁰⁰² *Ibid* at para 198.

¹⁰⁰³ *Prophet River First Nation v. British Columbia (Environment)*, 2017 BCCA 58, *supra* note 202.

¹⁰⁰⁴ *Prophet River First Nation v Canada (Attorney General)*, 2015 FC 1030; *Prophet River First Nation v Canada (Attorney General)*, 2017 FCA 15.

¹⁰⁰⁵ *Prophet River First Nation v. Canada (Attorney General)*, 2015 FC 1030, *supra* note 1004 at paras 50–52.

¹⁰⁰⁶ *Prophet River First Nation v. Canada (Attorney General)*, 2017 FCA 15, *supra* note 1004 at para 46.

West Moberly First Nation, then, issued a civil claim, arguing Treaty rights infringement, and an interlocutory injunction to request the halt of the project construction while the court was dealing with the infringement claim.¹⁰⁰⁷ In the interlocutory injunction, West Moberly argued that “[d]espite the long history of regulatory review and litigation concerning the Project, no decision-maker yet has agreed even to consider, let alone resolve, whether the Project unjustifiably infringes West Moberly’s treaty rights, despite West Moberly’s repeated efforts to have that issue addressed.”¹⁰⁰⁸ For West Moberly, the Crown did not justify the infringement under the test set out in *R. v. Sparrow*.¹⁰⁰⁹ In the injunction decision, the judge indicated that the spatial aspect of the claim is problematic because “it is not clear what right West Moberly can properly assert under the Treaty that can only be exercised in the Peace River region,” and the decision continues to state that West Moberly’s treaty rights are exercised, for the most part, outside the Site C project area of influence.¹⁰¹⁰ The court held that the injunction would be likely to cause significant and irreparable harm to BC Hydro and that the possibility of such harm weighs heavily against granting the injunction.¹⁰¹¹

While there is no decision on the merits of the civil claim, whether the approval of Site C unjustifiably infringed on Indigenous nations’ rights, BC Hydro continues the construction of the project. In October 2019, West Moberly amended the statement of civil claim, to include consideration for the impacts of the project on the First Nation’s Seasonal Round. In the statement, West Moberly explains that Seasonal Rounds are the means by which the Nation manages their territory, based on traditional knowledge of the land, waters, wildlife, and fish, adapting their practices to conserve resources for future generations.¹⁰¹² West Moberly sought relief through determination that, in approving Site C, the Crown failed to uphold the Honour of the Crown, breached fiduciary obligations and obligations under Treaty, and unjustifiably infringed Treaty rights. The Nation also requested a declaration that BC Hydro has been unjustly enriched by the decision and that the decision infringes Charter rights to manifest, express, and teach religious beliefs, to engage in transfer of traditional knowledge, and to pursue self-realization and self-fulfillment in engaging with traditional knowledge and traditional modes of life.¹⁰¹³ The West Moberly’s amended statement of civil claim indicates that the exercise of Treaty rights cannot be categorized in the way BC Hydro and the courts have requested Indigenous nations to demonstrate. Seasonal rounds are an important feature of adaptation and resource conservation, based

¹⁰⁰⁷ British Columbia et al, *supra* note 991.

¹⁰⁰⁸ *West Moberly First Nations v British Columbia*, 2018 BCSC 1835, at para 287.

¹⁰⁰⁹ *Ibid.* at para 239.

¹⁰¹⁰ *Ibid.* at para 258.

¹⁰¹¹ *Ibid.*

¹⁰¹² West Moberly First Nation, *Amended Notice of Civil Claim in the Supreme Court of British Columbia* (Vancouver Registry, 2019). Online: *Sage Legal* <https://issuu.com/sagelegal/docs/filed_-_amended_notice_of_civil_claim_-_september_>. at paras 46-49.

¹⁰¹³ *Ibid.* at paras 148-170.

on traditional knowledge, which cannot be constrained in specific and fixed areas of the Treaty.¹⁰¹⁴

Blueberry River First Nation has been arguing in provincial courts the disturbance of cumulative effects of industrial development in their territory for years. The First Nation's claims have a broader scope than the effects of Site C, but addressed the concern regarding the combination of the impacts from oil and gas and hydropower developments, including Site C. In a 2015 civil claim, the Nation provided a report produced by David Suzuki Foundation, based on BC government data, to argue that almost 75 per cent of their territory lies within 250 metres of an industrial disturbance.¹⁰¹⁵ The question in the main civil claim is whether the cumulative effect of all industrial development in their traditional territory has become so extensive that it amounts to a breach of Treaty rights.¹⁰¹⁶ Blueberry River requests that BC government develop a planning framework to assess the cumulative impacts on the Nation's Treaty rights and ensure the comprehensive planning and management of future development in a manner consistent with Treaty rights.¹⁰¹⁷ Blueberry River First Nation argued for the application of the principles from *R. v. Badger* decision, especially that Treaty 8 must be interpreted with reference to oral promises made on behalf of the Crown and recorded in reports of the Treaty Commissioners and other sources at that time.¹⁰¹⁸ Blueberry River also argued for the application of the *Mikisew Cree v. Canada, 2005*, decision indicating the existence of a threat to having a meaningful right to hunt, considering all the taking up of land for development, as well as requested the application of the *Sparrow* justification test for infringing Treaty rights.¹⁰¹⁹ After a period of negotiations with the Province, in May of 2019, Blueberry River re-launched their civil claim.¹⁰²⁰ The Nation's actions in court indicate the need for a strategic planning framework that respects Indigenous rights to maintain their practice and to have decision-making power on the development of the region.

West Moberly and Blueberry River First Nations are still waiting for the colonial courts' decisions on the merits of their claims. The civil claims represent a significant indication that there are no administrative fora in place to address Indigenous rights in industrial development decisions. As a result, the Nations had to go through expensive and long

¹⁰¹⁴ For considerations on seasonal round in common law, see, e.g., Alan Hanna, "Making the Round: Aboriginal Title in the Common Law from a Tsilhqot'in Legal Perspective" (2013) 45:3 Ottawa L Rev 365-402.

¹⁰¹⁵ *Atlas of Cumulative Landscape Disturbance in the Traditional Territory of the Blueberry River First Nation*, by Eliana MacDonald (Ecotrust Canada and David Suzuki Foundation, 2016). Online: <https://davidssuzuki.org/wp-content/uploads/2017/09/atlas-cumulative-landscape-disturbance-traditional-territory-blueberry-river-first-nations-2016.pdf>. At 73.

¹⁰¹⁶ *Yahey v. British Columbia* 2015 BCSC 1302, *supra* note 814 at para 37.

¹⁰¹⁷ *Ibid.*

¹⁰¹⁸ *Ibid*; *R. v. Badger*, *supra* note 878 at 55.

¹⁰¹⁹ *Yahey v. British Columbia* 2015 BCSC 1302, *supra* note 814.

¹⁰²⁰ Christopher Pollon, "Stung by derailed negotiations with B.C., Blueberry River First Nations return to court", *The Narwhal* (24 May 2019), online: <<https://thenarwhal.ca/stung-by-derailed-negotiations-with-b-c-blueberry-river-first-nations-return-to-court/>>.

proceedings requiring them to prove their reliance on specific tracts of lands and bodies of water. The cases demonstrate that there is a gap between the way colonial governments decide about ‘development’ and the compliance with Treaty rights, specifically a gap between the administrative arms of public service and the political arms of government – given the disagreement between the joint review panel and the Ministers’ decisions – as well as lack of understanding between Indigenous peoples and colonial governments on what the requirements for the protection of Treaty rights actually are. This all relates to the larger question of how the colonial governments must fulfill their fiduciary obligations towards Indigenous peoples, particularly considering the intent of the historic Treaties. The next section contains the result of interviews with leadership and members of First Nations, as well as activists and members of the Site C expert review panel, with the goal to shedding light to possible answers to this larger question.

5. Data results

The literature review chapter of this dissertation focused on the scholarship of environmental justice as applied to environmental decision-making, and considered environmental justice critiques to environmental decision-making, summarizing principles by which to assess opportunities for Indigenous peoples’ engagement and decision-making role in processes about infrastructure projects. Those principles are used to analyse the case studies of Belo Monte and Site C dams.

I organized the principles of environmental justice into three categories – recognition of affected people, procedural justice, and distributional justice – and I use these categories to organize the data results from the interviews in the Peace River Watershed region. For this reason, a brief summary of the three main aspects of environmental justice and the principles under these aspects, that were constructed through the literature review chapter are important to help situate the data results into the research framework. This chapter contains a description of the results organized according to the three main aspects of environmental justice.¹⁰²¹

Regarding the recognition and special treatment of Indigenous peoples in EIA, achieving EJ would require:

- Compliance with the requirements of state laws and Indigenous rights;
- Opportunities for the establishment of government-to-government agreements about the management of traditional territories and natural resources;
- Representation of Indigenous peoples affected by individuals sharing equal decision-making power as the state representatives;
- Requirement for Free, Prior, and Informed Consent regarding the proposal of specific projects according to criteria established in government-to-government agreements.

¹⁰²¹ I describe the data and organize it according to my interpretation as a researcher. I consider this to be the first step of my analysis. The second step of the analysis is the comparison between the data related to the Belo Monte and the Site C case studies in chapter six of the dissertation.

In terms of procedural justice, considering equal decision-making power between the state and Indigenous governments, achieving EJ would require:

- Opportunity for joint design and management of EIA since its early stages throughout the process, with sufficient representation of Indigenous communities affected;
- Criteria for knowledge selection, significance determination, scoping, participation, and decision-making about proposed projects on traditional territories, based on agreement between the states and Indigenous peoples potentially affected;
- Access to ample information and provision for funding to Indigenous representatives, sufficient to design and manage EIA process and decision-making;
- Regulatory and policy options for Indigenous community-led assessments substituting state conducted EIA.

Finally, regarding distributional aspects, achieving EJ would require:

- Socio-spatial evaluation of the allocation of adverse effects on Indigenous peoples, based on criteria defined in agreement between the state and Indigenous peoples affected;
- Cumulative impact assessments, with criteria defined in agreement between the state and Indigenous peoples affected;
- Priority to alternative development proposals that respect the values and interests of the Indigenous communities affected;
- Strategic Environmental Assessment, with criteria defined in agreement between the state and Indigenous peoples affected.

In this section, I organize the results of interviews with First Nation government staff and officials, elders, and members, and interviews with review panel members and with allies of First Nations, such as environmental and landowner organizations' members, into those three categories of environmental justice aspects.

5.1. Recognition aspects of environmental justice in impact assessment and decision-making

This subsection contains a description of some of the results of interviews with research participants, in particular with members of the local First Nations affected by Site C, in regards to aspects of recognition of Indigenous peoples. I classify aspects of recognition of Indigenous peoples by the colonial regime in environmental assessment and environmental decision-making into three main aspects: First, recognition of the particular connection of Indigenous peoples with the land as fundamental to inform communities' ways of being; second, recognition of Indigenous communities' interpretation of the intent of Treaty 8 and Treaty rights when considering issues of Treaty rights infringement in environmental decision-making; and third, recognition of Indigenous Nations' laws and governance systems as valid and legitimate in negotiations with the colonial government.

5.1.1. Connection with the land and ways of being

Some Indigenous interviewees indicated that land and the non-human beings that live on the land are part of their communities' identity and that there is a relationship of respect and equality between humans and non-humans, as one elder described: "Our belief is that we don't own the land, we are part of the land. And the same thing is true with the animals; we don't own the animals, we are part with the animals, we're no better than them, we have to work side by side with them and protect what we can, what is left there."(SC18) The connection with the land embodies and sustains their identity as Indigenous peoples, as one First Nation councillor stated: "As long as the land is there you can relearn the things that you forgot. But taking away the land is a permanent thing. Who are you? Are we gonna be Dene-za thirty or forty years from now? If the land keeps disappearing we won't be."(SC05) Another participant stated that their connection with the land is what sustained Indigenous peoples for millennia and is what allowed them to adapt to changes in the environment around them: "[O]ver ten thousand years, for time immemorial, that our people survived on the land with fresh water, fresh air, with animals, and fish to live from. And hence why I'm here, hence why a lot of people are here. It is because of their strength and ability to adapt."(SC03)

Some Indigenous participants also referred to the importance of the relationship among First Nations in the region and indicated that affecting the ways of life of one Nation has effects over other communities around them. One First Nation councillor expressed this idea: "They're telling us we're 300 and some [kilometres] away from the dam. But still, it's Treaty 8 area, where we're all connected in one way or the other."(SC16) The interviewee explained that the land connects the different communities and that they care for the Nations located closer to the dam because they are all Treaty 8 Nations: "[T]hroughout the history, from what I understand, the Beaver Nation used to gather in the area, and we are the Beaver Nations and there are some Beaver First Nations in West Moberly, some of their mothers are Beaver. How did the Beaver ladies get there? There is a connection where everyone did gather in that area. There was always a connection between communities."(SC16)

Participants expressed their frustration with the lack of mechanisms, in state law and administrative processes such as environmental assessments, to integrate in the decision-making the connection of Indigenous communities with the land and to acknowledge that this connection is inherent to communities' ways of life. One member of a local First Nation and activist against the Site C dam explained: "The impacts that they don't talk about in this whole process (courts, and joint panel review, BCUC) is our spiritual connection to the land. You can't mitigate that."(SC03) One non-Indigenous person, member of the review panel, explained how, throughout the review process, they started to understand the Indigenous communities' connection with the land: "It was the connection with these parts of the land that triggered memories and stories, that was instilling the culture of the children, stories always connected to the land (...) the loss of the land is acute, and they have to save some of it (...) The flooding is a really critical

thing.”(SC12)¹⁰²² The loss of the land has a concrete impact on how communities relate among themselves, how people interact within communities, how they transfer knowledge to the next generations, how they sustain their traditional practices and maintain their identity as Indigenous peoples. One non-Indigenous activist acknowledged that Indigenous ways of thinking about and interacting with the environment is more sustainable than western ways of thinking: “I think that the First Nations’ theory of existence maybe has more credibility than ours. I think that probably there is more consideration for the quality. They don’t define quality of life by how much we grow. There is more attention paid to the natural world.”(SC07) However, according to the interviewee, the attention to the natural world is not what informs the state-led assessments and decision-making about industrial developments but the amount of electricity produced and the resources extracted.

5.1.2. Treaty interpretation and Treaty rights

Research participants pointed to the respect for the Treaty and the interpretation of Treaty rights, based on the concept of sharing the land, as essential elements of recognition of Indigenous peoples in environmental decision-making. In the administration building of one local First Nation, one staff and community member pointed to a map of their Nation’s traditional territory and said: “This is all our land! It’s amazing, right?”(SC17) On the bottom right corner of the map there was a miniscule fraction of the area that indicated the Nation’s reserve. The interviewee’s comment indicates that they understand their rights and obligations extended throughout all their traditional territory, not only on the reserve. Several Indigenous interviewees spoke about their ancestors’ intention when they signed Treaty 8, which was to share the land and not to surrender it, as one First Nation’s councillor stated: “First Nations people [that] participated in the negotiations never thought they were giving up sovereignty of the land. They thought they were sharing the land.”(SC04) A staff member of another First Nation explained: “We’ve always, always (my grandpa told me so), we’ve always seen the Treaty as a relationship agreement not as surrender. It’s a relationship based on the affirmation of who we are, as Indigenous peoples, our rights and our responsibility over the territory that’s under Treaty.”(SC13)

Indigenous participants indicated that the whole extension of the Treaty area was significant for practising their ways of being on the land. Some interviewees expressed their disagreement with the methods used in the state-led environmental assessment to determine specific areas in which Indigenous communities exercise their Treaty rights, as one Indigenous elder explained: “Our rights don’t work that way. The right to exercise a Treaty right is anywhere on the land, as if we never entered the Treaty. It even says that in there (....) every square inch of that land, I have the right to exercise rights on that one square inch of that land and it doesn’t matter if it’s in downtown Fort St John, I have a Treaty right there.”(SC06)

An elder from a local First Nation pointed to the unjustified infringement of Treaty rights through the construction of the Bennett dam: “The first dam that came in the sixties

¹⁰²² I use ellipsis in parenthesis to indicate that I have excluded particular parts of a participant’s response because those parts may not be especially relevant to the point in discussion.

happened without any consultations, without no meetings, nothing. BC Hydro went ahead and did it. At that time in the early sixties the legal system never really looked at us at all, even though they should have because of our Treaty rights.”(SC18) Decades later, the Site C dam environmental assessment process did not provide for an opportunity to discuss Treaty rights infringement. As mentioned earlier, the recognition of Treaty rights infringement requires First Nations to access the colonial state courts to make that determination. One member of the joint review panel suggested the potential significance of the imminent decision on the West Moberly civil claim for understanding infringement and Indigenous consent: “The court cases that are coming out of the Site C decision will have much more than a local effect. They will set the bar for the infringement of old treaties and the tests for what constitutes free, prior and informed consent.”(SC01)

One First Nation elected chief indicated the need for environmental assessment laws to address Aboriginal and Treaty rights infringed by development approvals in traditional territories, as there is no current legal obligation for decision-makers to perform a test or analysis to ensure it is a justified infringement according to the *Sparrow* Supreme Court decision. In an email exchange, the Chief explained the need for a Treaty rights infringement test in the Site C process:

Unless they [government] actually say what they are going to do, then all they ever do is take it into consideration. Nowhere in the current EA or in the new B-69 recommended changes does it address FN rights and our Treaty Rights. So as to Site-c, it is an unjustifiable infringement our Constitutionally Protected Treaty Rights. Our point was to say, there has to be something more substantive than we will consider your Rights... There has never been a Sparrow test done on anything especially Site-C which is the Largest Capital infrastructure project in BC’s history and one of the largest in Canada’s history and if that doesn’t qualify for a Sparrow test what does[?].(SC21)

Regarding land use planning beyond individual projects’ approvals, one First Nation’s councillor indicated that respect for Treaty rights require shared decision-making power, and that the Treaty is integral to all instances of the relationship with the state. The councillor spoke about their experiences in discussing the implementation of land and resource management plans with the provincial government: “They would not consider Treaty rights during the discussions. They asked First Nations to park their Treaty rights at the door. First Nations wouldn’t participate, because you can’t. It’s our Treaty rights that give us seat on the table, so why do we park that, why do you even suggest it?”(SC04) One Indigenous interviewee stated that respect for treaties as agreements to share the land is a basic premise to colonial government’s treating First Nations as equals: “Equal nations! But [we’re] not gonna get there if the Crown keeps saying that treaties are surrender agreements.”(SC13)

In relation to cumulative effects on Treaty rights of First Nations in Northeast BC, one panel member explained that Indigenous peoples, in the assessment process, wanted to address the bigger picture of industrial development in Treaty 8 territory, not focusing only

on the impacts of Site C: “[T]he issues that First Nations wanted to raise was ‘hold on, we signed this agreement in 1899 and in a few years we had all this exploitation of oil and gas, of the land, completely overturning the region’s ecology.’ As a geographer, I say they are right. This is an industrialized landscape. It’s a long way from nature.”(SC01) This concern was expressed in the civil claim filed by the Blueberry River First Nation and was addressed by Indigenous interviewees when describing the consequences of heavy industrialization on Indigenous traditional territories.

5.1.3. Indigenous laws and governance systems

One Indigenous interviewee who worked with their Nation’s government to draft their Nation’s Constitution, spoke about the importance of formalizing communities’ laws: “All that the Constitution will do is [to] force people to put on paper into our discussion – who we are, what’s our relationship to our neighbours, how we do business with other levels of government, how we take care of our resources, what are our responsibilities, what are our rights. Who are we historically and what defines us philosophically? It’s all that Constitution defines a frame for policy.”(SC02) Another Indigenous interviewee, elder of the same First Nation, expressed the same idea, stating: “I believe that our laws have to be put into writing because we have so many unwritten laws that we had before, we had our own form of government before the colonial system started.”(SC18)

One member of an Indigenous Nation spoke about the importance of First Nations having decision-making power on how they manage their lands and resources in partnership with the state governments: “Co-management is the only solution, real co-management though. Not a token seat at the table. You say ‘this is a no-go zone, we have burial site there, so there can be no wells there (...)’ And the company actually says ‘ok we can do that.’ For me that’s a real partnership.”(SC02) Further, the interviewee expressed the need for Indigenous people’s power in managing the land to put a break on industrial development in the Northeast BC:

We have to be given real decision-making power, with legislative teeth, to be able to say ‘no’ to certain things, to put a limit on things, to have a cap, because industrial impacts are huge in the Northeast, most than any other part of the province. There’s nobody regulating thresholds. Still treated as the last frontier.(SC02)

The recognition of Indigenous peoples’ governance systems requires the sharing of control over the land, so First Nations can exercise governance and management on a way that reflects their laws and traditions. However, there are numerous challenges for First Nations when negotiating with state governments considering the differences in Indigenous and non-Indigenous governance structures. One Indigenous elder spoke about the accountability obligations that leaders in their First Nations have towards the large community, which is not necessarily the way state governments perceive their role in leadership:

Our governing structure is a little bit different from the way, in this case, the BC government structure. We have what is called an upside down pyramid. The [way] BC government is structured; the premier sits at the very top, then the cabinets, the senate of one side. And then (...) at the bottom are the people. Not in our structure. The chief sits here, above the chief is the council, and above the council is the staff that work with the people, and above those are the people. The people sit on top. It's the people that tell everybody else down below what to do. That's another thing they don't understand. And they're not willing to understand because it wouldn't work for them. It wouldn't work in their favour. But it works for us because that is how throughout history we survived as a people.(SC06)

Respect for the ways Indigenous Nations organize their governments, based on their identity and ways of being, is a basic element towards a better relationship between Indigenous and state governments, as one councillor explained: "First Nations people need to be grounded in being First Nations people and then they can interact in a colonial system. What's happening now is that the First Nations people are thrown into the colonial system, they're trying to fit in there. It doesn't work."(SC04) Another councillor of the same First Nation spoke about the stress over Indigenous peoples to fight for their Treaty rights in a colonial court system, outside the traditional court system. The interviewee explained that they are required to use Indigenous traditional law and colonial law: "[S]omehow we have to utilize those two components. [But] we don't have any lawyers that can think that way."(SC05)

One non-Indigenous activist spoke about the need for First Nations to have power to manage lands so they can survive as Indigenous people:

What needs to happen is that Indigenous people have the right to govern their lands, that there is true governance in place over the lands, better a least, at the very least, are critical and significant to their ability to carry on with their mode of life, as it was promised under Treaty and that their cultural identity gets to persist so deeply entwined with the land and the water.(SC08)

One First Nation councillor indicated their government's focus on preserving the land in their traditional ways, so they can sustain themselves and their traditional territory: "With the lands department, things are starting to smooth out and we are starting to understand what we want as a Nation."(SC16) Managing their traditional territory sustainably is intrinsic to First Nations' sense of responsibility for the following generations, as one elder explained:

[W]e've gotta think about the seven generations, meaning that we borrow the land from our kids, our grandkids, great grand kids, so it's our duty as Treaty 8 stewards to lead them to what's there. We cannot go hand in hand with industry and say 'yes' for every project and leave them with nothing.

How can they live off the land and be with Mother Nature, Mother Earth, if there's nothing there for them? So I'm trying to leave something there of what my forefathers have left for me.(SC18)

This subsection contained a description of the interview results regarding recognition aspects of environmental justice in Site C decision-making. Research participants expressed that some of the ways that Indigenous communities relate to the land and the natural world differs from western understandings of land as mere resources and economic assets. Indigenous participants, in particular, spoke about the importance of land and the ability to live off the land so they can maintain their identities as Indigenous peoples. Interviewees also indicated the need to conserve land and resources for the survival of the next generations and for the transference of traditional knowledge to the next generations. Some participants expressed their opinion that Site C and the combination of Site C with rampant industrial development in the Northeast of BC violates their Treaty rights. For several Indigenous interviewees, Treaty 8 was signed under the spirit of sharing the land with and not surrendering it to European settlers. Under this perspective, state laws and co-management frameworks between state and Indigenous governments need to respect and incorporate First Nations' laws and governance systems.

5.2. Procedural aspects of environmental justice in impact assessment and decision-making

This subsection addresses procedural aspects of environmental justice in Site C environmental assessment and decision-making. Some of the main issues regarding procedural justice discussed in the interviews can be classified in four categories. The first encompasses the lack of clear justification for Site C, conflicts of interest between the government and BC Hydro's interests (a Crown Corporation), transparency and accountability of the process. The second category refers to the environmental assessment process, especially the development of EIS studies, the divergence between BC Hydro's and First Nations' understanding of the spatial aspects of Treaty rights exercise, and the lack of a proper form to address Treaty rights infringement. The third category includes issues of consultation and consent and the fourth category refers to decision-making.

5.2.1. Justification for Site C, conflict of interests, transparency and accountability

Several participants manifested the opinion that the colonial government did not present robust justification for the approval of Site C. As one First Nation's councillor stated, "[d]o we really need the hydro? Was it really taken a good look at? What is this built for? I don't know how many years ago, they tried to build this dam and it was rejected two times or three times and [now] was approved. What changed?"(SC16) One of the review panel members stated the panel felt that the economic case was weak because there was not the demand, "it's not like we have blackouts."(SC12) The panel indicated the lack of evidence regarding the demand for the electricity in their final report.

In the early 1990s, an environmental activist and landowner participated in a Conservation Potential Review Collaborative funded by BC Hydro.¹⁰²³ This activist explained that the potential for energy conservation was promising at the time and that energy from the Site C was not needed:

We studied conservation from 1991 to 1995 and, as a result of that study; one of the results was that we found BC Hydro had twice as much electricity as they needed (...) Site C was dropped because the explanation for the need for Site C did not hold water in any of those cases. Construction of the dam for electrical use doesn't seem to be BC Hydro's main purpose. It seems to be creating jobs for BC Hydro personnel.(SC20)

One member and staff of a First Nation indicated that BC Hydro and the Crown did not make clear why they were building the dam and that the Nation was concerned when they heard that the purpose of Site C was to electrify the oil and gas industry in the Horn River basin.(SC13)

In the most recent iteration of the Site C proposal, in the early 2000s, the issue of whether there was demand for energy became less evident in the media than the issue of the project's sunk costs. The current BC government, elected in 2017, argued that previous governments had made it difficult to abandon the project because of the sunk costs, the amount that had been already invested. A landowner and activist in partnership with Indigenous Nations, expressed their disagreement with the argument that the government had invested too much money into Site C, making it financially unfeasible to stop the project at this point: "There's just too much money. It costs us too much money to back out now.' And it was wrong. Many financial and energy experts had countered that. But it doesn't matter! We live in this weird world where you make up your own facts!"(SC09)

Interviewees also mentioned the presence of conflict of interest, since BC Hydro, the proponent, is a Crown corporation, whose project was approved by the same provincial government.(SC08) An activist against the dam stated: "[T]his is the worst of all possible projects because the government itself is the proponent, it's the writer of the rules. They can write the laws. [If] there are some laws that can be a problem, they just change the laws, that's the Clean Energy Act."(SC07) The Clean Energy Act exempted the Site C project from going through a review by the BCUC, which generally has to assess utilities projects and issue a certificate of necessity and public interest. Site C initially lacked that level of accountability in its decision-making process.

Another issue addressed by participants was the loss of agricultural lands. Some research participants also mentioned that the impacts that the dam would have on agricultural lands and the consequences for food production in the province were not sufficiently and properly dealt with in the assessment. One interviewee indicated that, while there is no need for the energy that Site C would generate, there is a clear need for the agricultural

¹⁰²³ *Electricity Conservation Potential in BC Hydro's Service Area*, by Collaborative Committee for the 1991-94 Conservation Potential Review (Vancouver, BC, 1994).

lands that the dam would flood.(SC07) The government did not follow the proper procedure to address the agricultural land withdrawn from the Agricultural Land Reserve (ALR) for the purpose of building the Site C dam, as the interviewee explained: “[T]his is the largest withdrawn from the ALR that has ever occurred, was this valley (...) They didn’t even take it to the Land Commission. They exempted that. Any regulatory body that had any power to do anything about it they were exempted.”(SC07) Similar to the exempt from the BCUC review, the project also lacked a close evaluation of the impacts of the dam on interests related to agriculture, which means one less instance of accountability in the decision-making process.

Regarding the results from the 1980s assessment of Site C, interviewees referred to issues of transparency and accountability in the 2000s assessment process. A member of a local First Nation and an activist against the dam indicated that the project had been proposed, assessed, and rejected decades ago, and that the government had not given a clear reason for approving it this time.(SC03) The interviewee stated:

It’s been already stopped twice, that should’ve been enough (...) because throughout the governments, they’ve been awarding laws and policies and environmental reviews to make this fit, without giving it much media attention, or telling people what changes they need. They are keeping it a secret, which is not fair for us that live here.(SC03)

BC Hydro did not make public, in the 2000s EIS, the results from the assessment that BCUC carried out in the 1980s, which hindered discussions about the reasons why the project had been rejected at first. One non-Indigenous landowner that participated in the BCUC review explained: “Being in the [public hearing] room, thinking of people that had never been at a BC Hydro meeting before, and these young people trying to make these questions, I thought: they don’t know what happened in the past.”(SC20) One non-Indigenous activist expressed their frustration with the absence of the results from previous assessments in the recent discussions about the project:

With time, they’ve tried to build it over decades, in the 80s and 90s. And now it’s the third time. It frustrates me, and I think it’s very wrong that that information that was recorded and documented and the work that was put in those previous rounds, of trying to build this project, were not brought forward by the government. (...) That they can just proceed as if it’s a clean slate that’s very unjust, and a disrespect to people that put their time and emotion into it before, and said from their spirit and their mind, how this project will impact them, and how the dams before have impacted them.(SC08)

In relation to the results of the 2012 assessment, it became clear that BC Hydro and the government did not consider the possibility of rejecting the project or designing alternatives to the project. One non-Indigenous interviewee, who had worked with local First Nations on land management projects, explained that the Site C process of decision-making did not seriously consider downsizing the project or alternatives to the dam. The

focus of BC Hydro was to get approval for its original project instead of dialoguing with the affected communities about alternative ways to produce energy. The interviewee stated: “It’s like the decision changed from ‘is this the best project and why?’ to one about ‘how do we just get people to sign on from the business ventures?’”(SC14)

5.2.2. Environmental Assessment process

When speaking about the 2012 Site C environmental assessment process, several participants made reference to the 1982 process by the BCUC that led to a rejection of the project. One non-Indigenous activist, who participated in the assessment of Site C in the early 1980s, explained that some civil society organizations were able to make a case for an assessment by the BCUC at that time, instead of a decision conducted by the BC water comptroller. The civil society organizations argued that the water comptroller was not the body responsible for evaluating the environmental and social impacts of the dam. The civil society organizations were also successful in convincing the BC government that the initial social and environmental impact statements were inadequate. The interviewee stated: “[W]e were able to get an agreement that the studies were insufficient and that we needed a better process. (...) I tell people it was probably the most democratic environmental assessment that has ever happened anywhere.”(SC20) The assessment process by the BCUC started in 1982 and lasted for thirteen months, with weekly public meetings. The Treaty 8 Association, which represented some of the local First Nations at the time, intervened in the hearings and “was a very significant force in convincing BCUC panel of the inappropriateness of building a dam. It was just after so many First Nations people were thrown out of their home by the Bennett dam construction.”(SC20) A First Nation’s member and activist against Site C spoke about the reaction of their community when the project was rejected in the 1980s, even though there was a general sense that the government would still attempt to build the dam in the future:

My first general band [meeting], I believe I was ten years old, outside of our old band office (...) we were celebrating the hunters and chiefs that defeated Site C, that they would never talk about it again, and that was our goal. It was all in our language, Cree; they were all talking around me. And then I remember my grandfather say – you gotta remember this my girl, be prepared.(SC03)

In the early 2000s, when the BC Hydro began a process to propose Site C again, the government had to create guidelines for the EIS, outlining the issues and the scope of the studies. The EIS guidelines were the very first step of the assessment process, setting the parameters of the studies. One member of the expert review panel explained that there was representation of and agreement by First Nations in the negotiation about the guidelines for the BC Hydro’s EIS: “[W]hen they sat down to write the guidelines of the EIS, First Nations were on the table, other stakeholders and BC hydro. They hammered out as most such things have compromises. They may not be wonderful, but they are at least consensual.”(SC01) With the completion of the EIS guidelines, BC Hydro moved forward to the development of the EIS.

Regarding the participation of First Nations in the development of the EIS, one panel member explained that BC Hydro, in cooperation with First Nations, completed a series of traditional land use studies, which in their opinion were successful in terms of “setting the stage for a consideration for Treaty rights.”(SC01) The panel member explained the process of developing traditional land use studies: “It’s a very straightforward piece of practice these days. But essentially that involved sitting down with First Nations, particularly with the elders and asking: how did you use this land, where did you find medicinal plants, where did you hunt, fish? Did you have special sacred places, holy places? Burials?”(SC01) Regarding the traditional land use studies, another panel member spoke about the challenges in reconciling the review of impacts on sites that are sacred and confidential to First Nations and the public character of the panel’s work:

[T]hat was a different problem for us because our work had to be public (...) BC Hydro said they [sites] were secret, we promised the First Nations we would keep them secret. The panel read some and we gave them back. We didn’t reveal because all submissions we received were public, was all on the website (...) They let BC Hydro see it so they could be determined how these areas would be affected by the flooding.(SC12)

However, one non-Indigenous interviewee working with Treaty 8 Nations explained that the traditional land use studies, or land occupancy studies, are not a comprehensive picture of how First Nations use the land, they are just the entry point for doing a more complete cultural impact assessment. The studies are a preliminary representation of how the Indigenous communities use the land and how the people are connected to the land. Concerning the process of developing the studies, the interviewee indicated that there were extensive negotiations between BC Hydro and the First Nations, and that there were significant limitations in funding, timing, and scoping for communities to prepare the studies: “[T]here was lots of back and forth negotiation with industry, in this case BC hydro, in terms of the geographic spatial area, because they want to limit it just to the valley, and that’s an issue, and just the segment of the valley that they want to flood that’s in the flood reserve or zone. They don’t want to talk about the other two dams, they want to limit that.”(SC08) As a result, BC Hydro ended up developing a narrow harvest impact study, “a hybrid study where they did include a little bit of context about the impacts of the other two dams.”(SC08) The criteria to consider the spatial area affected were too restrictive. The interviewee continued to explain about the limitation of time and resources for communities to conduct the studies: “To me, a year is hugely unreasonable and just shows that BC Hydro was not in anytime working in good faith with the communities and they were limiting their ability to do the needed studies to respond to this mega project that would have lasting impacts on their communities for generations to come and where they already have experienced deep impacts from the previous two dams.”(SC08) One Indigenous elder from a local First Nation questioned the effectiveness of the land use occupancy study by explaining that it did not reflect the Indigenous communities’ relationship with the land and their rights over the territory: “One of the things they tried to do in our discussions ahead of time is try to have us name specific areas where we do this and that, blablabla. Our rights don’t work that way. The right to exercise a treaty right is anywhere on the land, as if we never entered the Treaty.”(SC06)

With the completion of the EIS, in 2012, the joint review panel received over 20,000 pages of studies from BC Hydro and 8,000 of testimonies from interveners. The panel's role was to review the BC Hydro's EIS, evaluate whether it was complete and test it in public hearings. One panel member explained that the panel had to agree that the EIS was ready for a review: "[T]hat was the first step, and we didn't agree, and we asked over a hundred questions to BC Hydro." (SC12) After BC Hydro had responded to the questions from the panel, the corporation and the government provided the terms of reference for the review, which outlined the aspects that the panel could make conclusions and recommendations on, as a panel member explained:

The panel was asked to essentially assess and make recommendations of environmental effects on local economic effects (...) [But on] concerns of First Nations, our job was to stay strictly away from saying whether there have been infringement of Treaty rights. Our job was simply to record diligently and presumably in a fashion that would be easy for lawyers to read elsewhere. So we did that. (SC01)

Another panel member stated: "We were meant to inform the government about the asserted claims, which these were. We weren't allowed to conclude although we did make recommendations anyway, which we were told were outside of the terms of reference. And we were trying to say 'if you go ahead here are some things that can accommodate.'" (SC12) Both members indicated that, even without assessing claims of Treaty rights infringement, the panel found important to include issues related to Treaty rights in the report in order to inform better decision-making or future discussions in court. One activist working with Treaty 8 Nations acknowledged the efforts of the review by the panel to hear Indigenous concerns about Treaty rights infringement:

They [panel members] knew there was a gap and you could get a sense they didn't feel comfortable with that. (...) I think the panel created a process in terms of what topics or subject matter was heard over the meetings and to include a day specifically on treaty, it shows that they saw it was very important. In a way, maybe they were messaging to Canada and BC (especially Canada) that that needed to be looked at. But that wasn't in the terms of reference. (SC08)

One non-Indigenous landowner and an ally with First Nations expressed concern with the lack of a proper forum in the environmental assessment to address issues of Treaty rights infringement: "That is the problem with this project, a lot of the concerns had never had a form, such as Treaty rights, and they're finally gonna get a form now with the First Nations going ahead with the civil case. And that is really one of the most outrageous things, it can get this far without trampling of Treaty rights, infringement of Treaty rights, being addressed, purposely." (SC09) The interviewee led a fundraising campaign to support West Moberly with the costs of the civil claim that argues for Treaty rights infringement by the approval of Site C.

Other research participants manifested their frustration with the lack of proper form in the environmental assessment to accurately and comprehensively address watershed socio-ecological issues. One non-Indigenous consultant working with First Nations stated: “A framework of environmental assessment starts with an understanding of ‘do we know the watershed?’ Do we know from enough science, what sort of impacts it can do? (...) We have to be honest about where is the real risks (...) What I’m concerned about is this fast track approach.”(SC14)

A non-Indigenous activist spoke about the cost-benefit analysis used in the assessment and decision about Site C: “BC Hydro just cannot honestly depict the value of a river valley because if they do it means that their dam cannot prove itself (...) The cost of construction added to the cost of social and environmental impact and resource loss impact just outweigh the benefits of building the dam.”(SC20)

Regarding the cumulative effects of the project in combination with regional industrial development, a panel member explained that the guidelines of EIS and BC Hydro’s EIS did not deal well with concerns related to cumulative effects and that the panel insisted that there was enough data to addressing the issue:

BC Hydro and the people who wrote the guidelines decided that the future began in 2012 and that anything that happened before then was irrelevant. We were talking only about the effects that the Site C would have. Under protest, they [BC Hydro] produced a kind of narrative summary of what happened in the last hundred years, but they said you can’t measure any of that. Now in fact, we have coverage that starts in the 1930s. And [a] good deal of study could have been done on cumulative effects and never has been.(SC01)

Other non-Indigenous research participant also mentioned the importance of addressing cumulative effects, especially, in regards to impacts on Treaty rights, and that these considerations should be crucial in deciding whether the government allows the project to go ahead. There was not a consideration for the broader picture and not a real opportunity to reject the project based on its potential impacts.(SC09) The issue of cumulative effects reflected some of the Indigenous communities’ submissions in the consultation process, which attempted to broaden the discussion beyond specific sites where Treaty rights are exercised, towards a more dynamic and holistic understanding of how Indigenous peoples relate with the territory. The next subsection includes a description of some of the issues brought by First Nations in consultation, as well as participants’ concerns with the legitimacy and effectiveness of the consultation process.

5.2.3. Consultation and Consent

Consultation with Indigenous peoples about Site C happened during the two stages of environmental assessment – the EIS development by BC Hydro and the joint review panel process. Conversations with Indigenous community members demonstrate that consultation was done with significant limitations in terms of time, scope, and funding, and

actually did not lead to consideration of Indigenous peoples' concerns in the decision-making process. The interviewees indicated that consultation might be an innocuous environmental assessment tool that does not lead to changes or restrictions to natural resources development; rather, it puts a strain over communities' time and resources and serves to ensure the support of communities to proposed projects through the signature of impact benefit agreements.

One non-Indigenous activist working with Treaty 8 First nations spoke about the restrictions of the spatial scope of the impacts of Site C, limited only to the Peace River Valley.(SC08) And a non-Indigenous activist spoke about the limitations regarding funding and time for the First Nations to prepare for consultation.(SC20) The issues with consultation in the Site C review overlap with some of the issues related to the lack of recognition by the state of Indigenous governance systems, as discussed previously.

The numerous proposals for individual development projects in the region also contribute to deplete communities' capacity to fully participate in consultation. As one First Nation's member indicated, Indigenous leaders are "inundated" with consultation referrals from a "hungry" industry.(SC03) A non-Indigenous interviewee working with First Nations suggested that more comprehensive land-planning processes would lead to more effective consultation and management of land and natural resources: "[T]aking actual time to do planning or studies, along this idea of spatial and temporal scaled approaches, that will actually respect the priorities of what people want to study."(SC14) Strategic Environmental Assessments of regional plans and policies would help make consultation procedures more efficient than solely the review of numerous individual projects.

One research participant, staff of a local First Nation's government, addressed specifically the issue of limited funding for collaboration among the First Nations to jointly participate in consultation. The interviewee explained that their Nation's leadership mobilized a large meeting of First Nations to jointly discuss and agree on aspects of Site C assessment and decision-making: "It was a large meeting. Some of the chiefs showed up. Someone from all the Treaty 8 nations was there. We talked about Site C, LNG, water and how we're going to deal with all the impacts to water, not only from the Site C dam, but also from LNG and fracking."(SC13) BC Hydro denied funding for that meeting, arguing that it was outside of the scope of the consultation agreement with affected First Nations, which prevented consultation procedures to give Indigenous communities the chance to working together. The interviewee explained: "It seems like, have we been able to use the money to have some real serious conversations as Indigenous communities affected by the dam, we might have had a way to move forward without all the divisiveness."(SC13)

The initiative of gathering Treaty 8 First Nations to discuss issues about land and natural resources management in their traditional territories would have been innovative in the Northeast BC context. As one Indigenous interviewee explained, the Nations rarely work together: "If we had solidarity, we could stop things, but communities are divided. There's no more collective voice. Without collective voice it's hard to get anything done."(SC02) Similarly, one First Nation councillor indicated that the approval of Site C was made easier because the unity among First Nations was broken.(SC16)

Several research participants referred to consultation as ineffective due to its inherent and systemic inability to address large issues related to cumulative effects of development, especially in regards to impacts on Indigenous Nations' rights over the territory. A non-Indigenous activist working with First Nations stated: "There is a weight of history and oppression and colonialism happening on the people, that's just not being taken into consideration, into account (...) But it's that whole structure and process where everything is de-compartmentalized, narrowed down, streamlined."(SC08) As a panel member acknowledged, recommendations and conditions did not address deep underlying questions of ownership and jurisdiction by Indigenous peoples.(SC01)

One Indigenous interviewee referred to consultation as just one step towards the approval of a project, not as a tool that could shape changes in the project or lead to the rejection of a proposal: "I'm pretty sure they knew that consultation was just one step they had to go through, they never lost sight of that angle. They never had any intention, ever, to change their mind on."(SC02) Consultation was merely a way towards the proponent getting Nations to sign impact benefit agreements, and the agreements served as evidence that communities' were consulted with. Impact benefit agreements are used as a leverage tool for proponents to get Indigenous peoples' acceptance of the project, as a First Nation's staff member stated: "[T]hose agreements that they try and make you sign on are basically for you to not have a say. It's a green light; it's what we call it."(SC11) Once Indigenous peoples have accepted the project, there is no more significant resistance or threats left to its implementation, as one Indigenous interviewee indicated: "First Nations are only another cog in the wheel, another problem to deal with. If they get First Nations on board then the general public will have nothing to say. If you get First Nations on board there is no stopping of any of those things."(SC02)

Consultation represents no limits over the approval of a project because, according to the law, decision-makers may simply record Indigenous participants' inputs and take them into consideration, as one elder stated: "[T]hey ask us what the impacts are gonna be for us a people living off the land, what our rights are. We tell them what they are and all we get is 'thank you very much for your input and we'll take all of this into consideration and pass it on to the decision-maker.' And that's all we get."(SC06)

The same issue was recurrent in several interviews. Even though consultation requirements might seem like a "victory" to Indigenous Nations, because the state has a duty to consult, participants indicated that consultation imposes no influence on whether a project will be approved, as one Indigenous interviewee explained: "They just come in there and let us know about their plan and ask what we think. But we have no veto power."(SC02) The duty to consult does not require governments to obtain Indigenous peoples' consent to specific projects.

The lack of legal requirements for consent renders the consultation process inoperable. Interviewees pointed to the lack of purpose in spending resources in consultation if there is not a real chance for communities to reject the project: "There was never an opportunity for us to say 'no'. How is that consultation? How is that UNDRIP? FPIC? They made the decision somewhere else and came here, figured out a way to justify. Saying to people it

was happening anyway (...) They spent years and hundreds of millions of dollars talking to people, but if 'no' is never even an option, is it consultation then?"(SC04) The need for implementing free, prior, and informed consent was an issue recurrent among the interviews. A panel member explained that, in the assessment process, some First Nations claimed the FPIC requirement and officially stated that they did not consent with Site C(SC12). One Indigenous elder spoke about their father's dialogue with BC Hydro officials when the project was first proposed in the 1980s:

In one point in that discussion, my father stood up and said, 'I speak three First Nations languages, maybe I should teach you those languages, so in each one [of them] I can explain to you what 'no' means, because you don't seem to understand what 'no' means in English and that's your language, maybe you'll understand it in mine.'(SC06)

While consultation mobilizes a lot of time, capacity, resources, and energy from First Nations' leaderships and community members, it has little influence on the decision-making outcome. It creates distrust between the proponent, the government, and communities as Indigenous peoples' opposition or concerns about a project are not apparently influencing policy decisions, as a staff of a First Nation's government explained:

I think that, based on our experience with EA processes in general, not just Site C, I really feel that not only are these processes ineffective for our community, but I think they actually harm our community by fuelling atrophy and distrust of leadership and people like me that drag people to these processes to actually no effect what so ever. People become distrustful and apathetic, like nothing is gonna change anyways so why bother. People stop showing in our community meetings, stop engaging in decision-making processes. It gets in the way of us being able to build our own governance. Part of it is [that] these things take a lot of time, a lot of our expertise, suck the resources out of the community, but they also leave people feeling powerless, and then what's the point? (...) All that work we did, all that blood and guts we laid on the table, it doesn't matter, it [the project] was approved.(SC13)

The research participants' concerns regarding consultation referred to the lack of time, resources, and funding for communities to participate, but mainly to the lack of communities' political power to refuse or to alter a project. Interviewees indicated that consultation procedures harm communities, deplete communities' and government's time and resources, and do not impose changes or do not allow for the rejection of a project. Consultation should have been a path for dialogue and achieving consent but was treated as a mere box to be checked in the review process. The next subsection contains some of the research participants' opinions about the Site C decision-making and some insights on how decision-making could respect Indigenous peoples' self-determination.

5.2.4. Decision-making

Several research participants spoke about the government's decision to approve the dam as a political rather than an evidence-based decision. One non-Indigenous activist against the dam concluded that they had not lost any public hearing, but that the evidences they brought forward in the assessment process were overruled by political interests: "All we've lost was a political clout to have the hearing results respected and accepted." (SC20) One panel member indicated that the government had made a decision about building the dam even before the completion of the environmental assessment, as the interviewee explains: "On that second day of the hearings, the Minister of Energy came up and told [us] that she was gonna build the dam. You think: 'you might have waited [until] you got the information to make the decision.'" (SC12)

The government made the decision without any Indigenous representation among decision-makers and no integration of traditional knowledge. One local First Nation's councillor indicated that Indigenous peoples should be given more resources and decision-making power. Indigenous peoples should have a seat at the decision-making table, in particular Indigenous elders, who have more knowledge of the land. (SC16) The same interviewee explained: "The people that are making these decisions, are used to the city. They don't know how we live, how our survival skills are up here (...) They think: We'll make a decision for them, without the knowledge or the skills of how we live out here." (SC16) One panel member recounted that the panel discussed the idea of having a First Nation person on the panel, representing Indigenous jurisdictions, "but [how] the terms of reference were set up, it was a federal/provincial panel. It wasn't a tripod, I think it would be a great way to do it." (SC12) The concept of jurisdiction in Canadian law does not allow for this type of arrangement.

According to one non-Indigenous activist, the main issue with the current decision-making framework is that it does not allow for Indigenous governments to control their traditional territories: "In my opinion you can create structure, new system, new process, but as long as it's being led by the government, (...) there won't be any changes. There will be the same deficiencies, inequalities and gaps." (SC08) This interviewee indicated that Indigenous people having the right to govern their lands is critical to their ability to carry on with their mode of life, as it was promised under Treaty. (SC08)

Some Indigenous interviewees expressed their interest in working together with the colonial governments in decision-making processes regarding development approvals, as one elder explains: "[B]esides just come and asking us what we thought of their project, I think they should have worked with us on how to minimize the impacts on our rights (...) Meaning there is things that they can do to ensure that our rights are not impacted, right up to the point of not doing anything at all." (SC06) This interviewee mentioned that the *Haida* decision established principles for colonial and Indigenous governments to work together and that the environmental decision-making should integrate those principles. (SC06) The interviewee also indicated the need for a joint decision-making process, with Indigenous and colonial governments, to respect each community's governance structure. (SC06) An elder from a different community expressed the opinion that colonial governments,

especially the federal government, should deal with each community in a nation-to-nation basis in which colonial governments are willing to work with First Nations in every step of environmental management and decision-making processes.(SC18)

In another Indigenous participant's opinion, environmental decision-making should be located in a co-management regime, in which First Nations have a "seat at the table" and the power to establish "no-go" zones in which development is prohibited: "The way it is now we have to be given real decision-making power, with legislative teeth, to be able to say 'no' to certain things, to put a limit on things (...)." (SC02) According to a First Nation councillor, the colonial government should establish more comprehensive regional strategic assessment, that are based on land use planning agreements with First Nations: "Part of the decision-making process needs to be a large use land plan that decides how much land needs to be available for power rights to exist. Right now they just keep taking more and more." (SC04)

Another Indigenous interviewee indicated that part of better environmental decision-making involves Indigenous communities being able to conduct their own social and environmental reviews of development projects:

I think we need to do our own reviews (...) If we see it as an opportunity to think about how we want to make decisions and how we want to assess the impacts. What are the values, the criteria that we're assessing? And how do we as a community make decisions and how do we address our neighbouring Nations that are also affected, what are those processes? If we're able to build those kinds of Indigenous-led assessments that build up Indigenous governance structures, I think that would make a difference.(SC13)

On the one hand, for this process of revitalization of Indigenous governance orders to happen, one Indigenous elder believes that Indigenous Nations should become familiar with their rights, as stated in UNDRIP, and as endorsed by the Canadian state.(SC18) On the other hand one First Nation councillor referred to the contradiction between colonial governments' promises to act towards reconciliation with Indigenous peoples and the decision about Site C:

All of this is happening during a time that Canada and the province of BC are speaking about reconciliation and raising First Nations people up to their rightful place in their own country. At the same time that they're saying these things, on the ground we're experiencing them doing the opposite, they're suppressing us, they don't want to hear our voices. In the court cases, we're fighting to keep our words out because they don't want the truth to be known by all (...) their double standards are in front of their faces and they'll have to live with that.(SC04)

In this subsection, I described some of the research participants' insights in relation to the decision-making stage of Site C and natural resources development projects in general. The

interviewees indicated that the decision about the dam was political rather than evidence-based, that there should be Indigenous representation in the panel and among decision-makers, and that future nation-to-nation partnerships between First Nations and colonial governments should enable Indigenous peoples to reject a project, if they decide so.

In regards to procedural justice aspects of the assessment of and decision-making about Site C, the insights from the participants' can be classified in four categories: 1) Issues related to the lack of clear justification for approving Site C, conflict of interests between the Crown and the proponent (a Crown corporation), and lack of transparency and accountability regarding the decision; 2) aspects related to the environmental assessment process, in particular the development of traditional land use studies and the lack of opportunity to address potential Treaty rights infringement; 3) Issues related to consultation and lack of consent, and the need to comply with principles established through courts' decisions, such as the *Sparrow* test and principles for consultation from the *Haida* decision; 4) aspects related to the decision-making, in particular lack of power and opportunity for First Nations to work in a nation-to-nation basis with the colonial government. The next section provides information on the insights from interviewees in relation to distributional aspects of the Site C assessment and decision-making.

5.3. Distributional aspects of environmental justice in impact assessment and decision-making

This subsection addresses some of the distributional justice aspects related to Site C decision-making. I organized the insights from the interviews into three categories of issues: 1) Economic development, including issues related to impact benefit agreements, creation of job opportunities, and the need for sustainable development; 2) some of the biophysical impacts from Site C that are of concern for the survival and well-being of Indigenous peoples; and 3) cumulative impacts on Treaty rights due to the uncontrolled approval of infrastructure and industrial facilities, which have been restricting the exercise of traditional practices and Indigenous peoples' connection with the land.

5.3.1. Economic (un)development

A number of research participants indicated that First Nations are not opposed to economic development through the implementation of infrastructure and industrial projects in the region. However, First Nations expect the state government to implement a more sustainable framework for developing natural resources, a framework that contemplates development with a broad and comprehensive approach, as a First Nation government official explained: "We're not stopping economic development; we're just requesting that that coincide with sustainable development so that we can all live in the territory."(SC11)

Some of the interviewees pointed to the negative effects of economic development by industry, as one panel member indicated: "There's lots of good job. But, just like the oil and gas industry, with construction come drugs and alcohol, lots of money, abuse that follows that, that will affect First Nations certainly."(SC12) Economic growth, therefore, is not sufficient to ensure the wellbeing of Indigenous peoples in the region; rather, it might

be, sometimes, a cause of disruption to the connection of Indigenous peoples with the land and their community.

Economic development through the creation of local jobs might also lead to communities feeling coerced to accept the project, as one Indigenous elder, member of a First Nation that signed an impact benefit agreement with BC Hydro, explains: “[T]here’s a lot of people that are working for the reserve, for the band, that are totally against Site C but they’re scared to make an opinion because they don’t want to lose their job.”(SC18) One local First Nation councillor indicated that the creation of jobs should not be a priority over sustaining Indigenous peoples’ survival off the land: “Jobs are important, but if at some point the jobs are coming at expense of First Nations’ livelihood, that shouldn’t be a job, that shouldn’t be considered for a job. If it means that First Nations’ ways of life can’t exist anymore, it’s gonna be eroded, scrap the job, find something else.” (SC04)

Several participants mentioned the impact benefit agreements that First Nations signed with BC Hydro for the creation of jobs and financial benefits for communities. One Indigenous interviewee indicated the importance of establishing agreements that focus on environmental mitigation, not solely on financial compensation.(SC02) One First Nation councillor expressed that financial agreements would not be able to provide for their future as a Nation, as opposed to the benefits that the land could provide: “You can’t eat money, don’t try to buy us out, we just want the land, the land feeds us.”(SC05)

In regards to the development of land for agriculture, the notion of economic development that BC Hydro and the state government adopted was narrow, not considering the potential use of the land to feed the provincial population. One non-Indigenous activist explained that farmers had not wanted to invest in agriculture in the valley because there has been a long-standing anticipation that Site C would be built, and that the land would be flooded. Nevertheless, when assessing the value of the area, BC Hydro considered the current state of the land (unfarmed), as opposed to the potential that it could have in the future to feed the population of the province. The interviewee explained: “This land has not been farmed because it was under the shadow of this dam and had been for so many years. People were not investing money and time because of that (...) I think the argument should have been, ‘what’s the potential of that land when we come to the point when we really need it.’”(SC07)

Finally, regarding the economic aspects of distributional justice around Site C, challenges against infrastructure projects and industrial development in courts have been depleting some First Nations’ resources due to costs with judicial claims of Treaty rights infringement. One non-Indigenous activist spoke about that aspect of economic impacts on First Nations: “[T]he BC government culture right now is that you can go to court, and we all know how that works because it’s very costly, and they have deep pockets because they have our money and First Nations don’t have a lot of resources in that respect.”(SC08)

5.3.2. Biophysical impacts of Site C

Some interviewees pointed to specific biophysical changes that the Site C project would cause. One panel member spoke about the importance of the Peace River Valley, which is a warmer area than the high plateaus around. In the valley, some species of animals seek refuge in the low lands and the islands. The valley provides for a different local ecology, which inhabits many medicinal plants used in Indigenous ceremonies, and also host particular important sites for prayer, contemplation and teaching for local First Nations. Those are sites that will be inundated by the Site C dam.(SC01) A First Nation elder mentioned how the different components of the Site C project will impact the land used by Indigenous peoples:

Site C is proposing to build a lot of power lines and there are some areas where we don't want them to build power lines. They'll be building new roads, creating probably new gravel pits, and some of these areas may be environmentally sensitive for us because of our use of the land, or spiritually sensitive because what's already there, from a historic First Nations perspective.(SC06)

One panel member explained the impacts of Site C on the fish and fish habitat, echoing the panel's conclusion that some of the impacts would be immitigable, especially on the River stretch between the W.A.C. Bennett dam and the Alberta border: "[It] is about one hundred kilometres, seventy three of them are gonna be behind the reservoir. That stretch is a mixing area for the cold-water species, and the mountain, and the warm-water species and the prairies (...) some of the most biological productive stretches of the whole river, and of course that's gonna be lost."(SC12) Some fish species will be permanently extinct from that River stretch because of the dam.

Another biophysical impact that concerns the communities is the erosion of the riverbanks. One First Nation councillor spoke about the vulnerability of the slopes that reservoirs create, which cause the loss of large tracts of land, what has been visibly happening in the Williston reservoir: "[E]very year the reservoir gets bigger because of erosion of the banks, a meter of the shoreline every year gets eaten (...) They claim that site C will not do that 'rinsing', it's a more stable reservoir, (...) [But] in a blink of an eye, it's absolutely possible."(SC04) The erosion would destroy important areas for the local First Nations used for harvesting, as the councillor explained:

Where they're working at Site C, they found those big tension cracks, and they're all throughout the valley, holes, instabilities, places where there's a tension crack. (...) The Peace Moberly tract, that we fought for years to protect, because of the wildlife, now with the reservoir, which is gonna be eroding and eating into that land.(SC04)

The biophysical effects of Site C would reach the Peace Athabasca Delta (PAD), an important ecological refuge, as one panel member expressed: "I was concerned. Yes, there is change in the Peace Athabasca Delta, there have been with the Bennett dam, and there

have been increasingly exacerbated by climate change.”(SC12) Although the panel concluded that Site C would have no direct effect on the PAD, this conclusion contradicts the arguments that the Mikisew Cree presented to the UN World Heritage Centre and some of the findings by the UNESCO consultants.¹⁰²⁴ Canada argued that there is “no legal mechanism under federal legislation to suspend or negate an authorization and undertake a new environmental assessment for a project that has been approved” and that Canada has been enforcing the conditions of the Site C approval.¹⁰²⁵ The discussion around the impacts on the PAD demonstrates that an assessment of the Site C’s adverse effects should not be considered in isolation from the cumulative effects of the previous dams and other industry facilities in the broader region.

5.3.3. Cumulative impacts on Treaty rights

The cumulative effects of industry have been deeply affecting the ways Indigenous Nations relate with the land. Environmental impacts from infrastructure and industry cannot be separated from the effects on the exercise of Treaty rights, as one First Nation councillor explained: “It’s pretty hard to pinpoint one [impact] because environment has to do with the Treaty, everything under the Treaty has to do with the environment – habitat, water, where the water comes from (...) all those things contribute to our part in the Treaty.”(SC05) Indigenous communities have been forced to constantly adapt, as one elder explains: “[A] lot [of] who we are as people – how we utilize the forest, how they saw the forest and wildlife – changed over the years because of industrial impacts, what we call cumulative impacts.”(SC06)

West Moberly Chief, Roland Willson, in a presentation to the Standing Committee on The Environment and Sustainable Development, in the Canadian Parliament, regarding the new Canadian environmental assessment framework, spoke about the need to address the cumulative effects of development on Indigenous traditional territories. In the presentation, Chief Willson described the impacts of industrialization on the air, through sour gas and oil and gas activities; on the fish, which are contaminated by methylmercury from the Williston Reservoir; on the animals that the West Moberly community hunts; impacts on the water, contaminated by methylmercury and selenium; on the forests, through sloughing and erosion of the soil; and impacts on caribou and caribou habitat.¹⁰²⁶

Hydropower plants, in particular, contributed significantly to the changes on traditional land. One Indigenous activist compared the previous hydropower developments in the region, the Peace Canyon dam and W.A.C Bennett dam, and the Site C project with acts of ‘raping’ the land: “With the mercury that’s produced by the seventh largest man made reservoir [Williston], it’s polluting our water, and water is life. That’s not a good feeling living beside polluted water or knowing that our fish that we only are allowed to catch two times a month.”(SC03)

¹⁰²⁴ UNESCO, *supra* note 976.

¹⁰²⁵ Parks Canada, *Wood Buffalo National Park World Heritage Site Action Plan* (2019) at 25.

¹⁰²⁶ Willson & Muir, *supra* note 821.

Research participants spoke in particular about the devastation caused by the Bennett dam, such as the cut off the migration route of the caribou and the flooding of the Ingenika people's trap line. (SC18) Some research participants recalled stories of Indigenous communities' experiences in the flooding of the Bennett dam, in particular one quote from a member of an Indigenous community destroyed by the reservoir: "They told us they were going to build a dam but they didn't say they were gonna flood the entire world." (SC19, SC20)

An Indigenous activist described the connection between industrial development in the region and negative effects on Indigenous communities' health and wellbeing, indicating a spike in cases of diabetes, cancer, illnesses, and suicides, as well as drugs and alcohol abuse. (SC03) The interviewee addressed in particular the social impacts of industrial development on Indigenous women, who most strongly experience the violence caused by the increase in the number of male transit workers: "We have the highest per capita for murdered and missing Indigenous women and girls. Even though there are 60 to 80 thousand in this area, we have the highest per capita in Canada because of the industry and transit workers, and plus local." (SC03)

Indigenous interviewees spoke about the devastation of the land and special sites that First Nations use for their living. Communities are left with very few areas where they can exercise their traditional practices, as one elder explained: "It's not as simple as 'if you can't do that here, why don't you go do that someplace else.' That is hard to do, because the whole country side has oil and gas wells, pipelines, power lines, cut blocks for logging, areas clear for windmill operations, even for mining." (SC06) Another Indigenous interviewee described the consequences of uncontrolled implementation of industrial facilities in the region: "Our lands are nude! The moose numbers are down and everywhere you look you see large clear cuts. With all the focus on oil and gas and LNG, they're still mining, and still logging and the [power] plants (...) Their plans continue, and they even go faster. They have no plans for slowing down." (SC02) A First Nation government official spoke about the concern with the survival of the community: "The animals will move away and affect our right to hunt. Not many moose and caribou are left in this area. It will impact more the wildlife left for us to survive from and in the future for our younger generation. Once all the resources are taken, we'll be left with nothing to survive on." (SC17) Another First Nation government staff stated that their community would suffer the disruption, from Site C, on trade relationships among Nations, in particular their network through where they share meat. (SC13)

One First Nation councillor summarized the amassing of adverse effects from industry in traditional territories as a 'topocide' – a complete alteration of the landscape to the point that Indigenous traditions are not possible anymore. The interviewee explained how the process of topocide happens in communities:

The Peace River valley is a massive ecosystem that provides life and habitat for so many animals and different species that we have a relationship with. Animals, moose, (...) One of the reasons that West Mo[berly] exists in this location is because of the resources that have

always known to be around, the animals, moose, the fish. So taking out a massive ecosystem like that or transforming it from a river system into a reservoir, introducing methyl mercury into that whole system, it's gonna change how the First Nations people are gonna relate to that land. For example, I fish in this lake. I go there regularly. We catch fish, take them home, take them to our elders, eat them, smoke them. If I know that there is a potential for mercury contaminant in the fish, to access this lake, it's gonna change how I feel about doing those practices. I'm gonna move away from fishing here and look further abroad. It creates a disconnect between our community and people and the land and the resources that we're familiar with (...) It's slowly turning people away from, like our kids, home, the elders will tell stories but those places won't be available. The stories won't have the same meaning as if an elder could take somebody there and explain [that] we hunted here, because it will be a big reservoir.(SC04)

The Peace River valley is a tract of land that has been safeguarded from uncontrolled industrial development; therefore, it is an important area for Indigenous communities to exercise Treaty rights. One non-Indigenous activist spoke about the importance of the valley: "So much of the land use practices that the First Nations are supposed to have guaranteed to them are impossible anymore up here. And the valley is one place where it could be continued here, and they're gonna flood it."(SC09)

The cumulative impacts of Site C in combination with infrastructure and industrial facilities in Northeast BC raise issues related to reconciliation between colonial governments and Indigenous peoples in the region. A panel member expressed concern with the implication of the Site C approval to reconciliation efforts.(SC12) A First Nation councillor indicated that, when speaking about reconciliation, the governments of BC and Canada have been using "double standards" in their relationship with Indigenous peoples: "At the same time that they're saying these things, on the ground we're experiencing them doing the opposite, they're suppressing us, they don't want to hear our voices."(SC04)

This subsection addressed some of the distributional justice aspects related to Site C decision-making. I organized the insights from interviews into three categories of issues: 1) Economic development; 2) biophysical impacts from Site C; and 3) cumulative impacts on Treaty rights. Regarding the first issue, research participants indicated the need for a framework that focuses on sustainable development of the region and job creation and impact benefit agreements that prioritize ecological health and Indigenous peoples' connection with the land. Interviewees also mentioned the lack of consideration for the potential of the valley for agriculture and food production and the depletion of First Nations' economic resources by costs with court cases. Regarding the second issue, research participants mentioned the effects of the dam on medicinal plants, sensitive sites for First Nations, the extinction of fish and fish habitat, and the risk of erosion and loss of important tracts of land, as well as cumulative impacts on the Peace Athabasca Delta. Regarding the issue of cumulative impacts on Treaty rights, interviewees indicated the effects of previous dams on Indigenous communities, the cumulative impacts of industry

over the health and wellbeing of First Nations, as well as threats to Indigenous women due to the increase of male transit workers. Research participants also indicated that uncontrolled natural resource development has been leading to a ‘topocide’ of traditional territories, which causes the distancing of new generations of Indigenous peoples from the land. Finally, the interviewees raised concern with the implications of the Site C approval and industry growth in the Northeast BC for reconciliation between Indigenous and non-Indigenous peoples and governments.

5.4. Summary of the data results

This section contained a description of the data results from interviews with Indigenous Nations’ government officials and staff, non-Indigenous allies with First Nations, and joint review panel members that conducted a review of the Site C project. I organized the data into three categories according to aspects of environmental justice in environmental and natural resource decision-making, as described in chapter three of the dissertation. The first subsection contained a description of the interview results regarding recognition aspects of environmental justice in Site C decision-making. Research participants expressed the view that some of the ways that Indigenous communities relate to the land and the natural world diverge from western understandings of land as mere resources and economic assets. Indigenous participants, in particular, spoke about the importance of land and the ability to live off the land so they can maintain their identities as Indigenous peoples. Interviewees also indicated the need to conserve land and resources for the survival of the next generations and for the transference of traditional knowledge to the next generations. Some participants expressed the opinion that Site C and the combination of Site C with rampant industrial development in the Northeast of BC violate Treaty rights. For several Indigenous interviewees, Treaty 8 was signed under the spirit of sharing the land with and not surrendering it to European settlers. Under this perspective, state laws and co-management frameworks between state and Indigenous governments need to respect First Nations’ laws and governance systems. The interviews demonstrate, therefore, that Indigenous peoples require that the state acknowledge and ensure the exercise of their self-determination over traditional territories in order for them to fairly participate in impact assessment and decision-making about infrastructure projects.

In the second subsection, regarding procedural justice aspects of the assessment of and decision-making about Site C, research participants raised issues related to the lack of clear justification for approving Site C, conflict of interests between the Crown and the proponent (a Crown corporation), and lack of transparency and accountability regarding the decision; aspects related to the environmental assessment process, in particular the development of traditional land use studies and the lack of opportunity to address potential Treaty rights infringement; issues related to consultation and lack of consent, and the need to comply with principles established through courts’ decisions, such as the *Sparrow* test and principles for consultation from the *Haida* decision; and aspects related to the decision-making, in particular lack of power and opportunity for First Nations to work in a nation-to-nation basis with the colonial government. In regards to procedural justice, therefore, the interviews indicated that Indigenous peoples require that the state comply with Constitutional and Treaty rights as a starting point to a nation-to-nation relationship in impact assessment processes and outcomes.

The third subsection addressed some of the distributional justice aspects related to Site C decision-making. Firstly, the research participants raised issues concerning economic development, indicating the need for a framework that focuses on sustainable development of the region, including job creation and impact benefit agreements that prioritize ecological health and Indigenous peoples' connection with the land. The interviewees also alluded to the lack of consideration for the potential of the valley for agriculture and food production and the depletion of First Nations' economic resources by costs with court cases. Secondly, the interviewees addressed the biophysical impacts from Site C and cumulative impacts on Treaty rights, raising concerns with the effects of the dam on medicinal plants, sensitive sites for First Nations, the extinction of fish and fish habitat, and the risk of erosion and loss of important tracts of land. Thirdly, regarding the issue of cumulative impacts on Treaty rights, interviewees indicated the effects of previous dams on Indigenous communities, the cumulative impacts of industry over the health and wellbeing of First Nations, as well as threats to Indigenous women due to the increase of male transit workers. Research participants also indicated that uncontrolled natural resource development has been leading to a 'topocide' of traditional territories, which causes the distancing of new generations of Indigenous peoples from the land. Finally, the interviewees raised concern with the negative implications of the Site C approval and industry growth in the Northeast BC for reconciliation between Indigenous and non-Indigenous peoples and governments. Therefore, the interviews confirmed that dams disproportionately affect Indigenous peoples and that impact assessment of infrastructure projects dismisses Indigenous peoples' conceptions of development for their traditional territories.

6. Conclusion

This chapter provided an overview of the historic background of Site C, inserted in the context of industrial development in the Northeast region of BC, and specifically the socio-ecological effects of past dams and Site C on Indigenous communities. The chapter also contains a characterization of the Canadian and BC legal and policy regimes that are pertinent to the assessment and decision-making of the Site C project. The chapter ends with the description of data results from interviews with First Nations' government officials and staff, non-Indigenous activists allied with First Nations, and review panel members.

Similar to the Belo Monte case study, there is a historical distrust from First Nations in the Peace region towards the provincial and the federal governments. First Nations have been struggling to protect part of their traditional territories from the encroachment of industry. Governments disregard Indigenous peoples' voices in land and natural resources management and decision-making. And courts and administrative bodies have not upheld Aboriginal and Treaty rights while applying a restrictive interpretation of the law. First Nations are in a long-standing struggle for the state's acknowledgement of the cumulative effects of industrial development over their Treaty rights and for decision-making power over their traditional territories.

The results from the interviews indicate that issues related to assessment and approval of infrastructure projects must be considered in the larger standpoint of respect for the standards of Treaty 8, and in consideration for the cumulative effects of industrial development on Treaty and Aboriginal rights. The interviews indicate that reconciliation between Indigenous and non-Indigenous governments in the Northeast BC would require Indigenous decision-making power over their traditional territories in a nation-to-nation approach, and compliance with Constitutional, Treaty rights, and principles established in the Treaty and colonial courts decisions.

The data results present similar aspects to the Belo Monte case study in the sense that Indigenous peoples, both in Pará and BC, demand decision-making power about development projects, respect for their ways of being and knowing in connection with the land, and respect for state and international laws in regards to Indigenous and Aboriginal rights and socio-ecological protection. However, state-led environmental impact assessment and decision-making present fundamental limitations that render them unable to deliver those expectations. Some of the aspects of EIA, such as consultation and ample discretion by the state government, have contributed to power asymmetries between the state and Indigenous peoples, and environmental injustices through disparate adverse effects from development projects. Nevertheless, certain environmental management tools, such as land-use planning and regional strategic assessments, in collaboration and respect for Indigenous nations' policies, could contribute to hold state-led EIA and decision-making accountable to its original purpose in leading sustainable use of the land and watersheds. In the next chapter, I develop a detailed analysis of the differences and similarities between the two case studies and indicate how the principles of environmental justice have been applied or/and infringed through the assessment and decision-making of the two dams.

Chapter 6: Analysis of the Data Results

1. Introduction

This chapter contains an analysis of the data that I described in chapters four and five, comparing the two political and historical contexts, of Site C and Belo Monte case studies, as well as the two legal and regulatory regimes. In this chapter I address the issues and experiences that the research participants shared during the interviews, and contrast these issues with the principles from the EJ framework, as characterized in chapter three. The purpose of the chapter is not to compare specific laws and institutions but to make observations and draw conclusions from the comparison between the case studies and the experiences on the ground with state laws and policies. As a result, I make general recommendations for impact assessment laws and policies to address concerns from Indigenous peoples affected by infrastructure projects and their right to decide about those projects in their traditional territories.

The chapter's objective is to analyse the operation of state-led impact assessment practices through the experiences of research participants. However, the chapter also includes a broader reflection about how the theories discussed in chapter three may be shaped by people's real-life experiences. Environmental justice principles help analyse the case studies while the participants' insights help shape the theory of EJ for Indigenous peoples in environmental-decision-making.¹⁰²⁷ The insights from conversations with Indigenous participants, activists, review panel members, and government officials bring light and nuance to the theory. Concepts such as right to land, cumulative impacts, consultation, and FPIC are exposed as much more complex than the law and academic work have been able to express so far. There is a range of issues tangled up and sometimes hidden in decision-making processes and outcomes that I hope to flash out through this discussion. The way laws and policies have applied those concepts have concrete implications for peoples' lives, their wellbeing, health, communal life, and livelihood. This chapter helps undress how laws and policies have been contributing to environmental injustices.

Following this introduction, in the second section of the chapter, I focus on the similarities and differences between the two case studies regarding the historical and political contexts of both hydropower projects' assessment and decision-making processes. In the third section, I draw a comparison between the differences and similarities regarding the legal and regulatory regimes pertinent to the case studies. The fourth section provides a comparison of the state-led practices of impact assessment and decision-making in the two different contexts and the issues that have been prominent in courts. The fifth section offers an analysis of the larger issues that I identified in the data results, organized according to the three main aspects of environmental justice – recognition, procedural justice, and distributional justice. The sixth section contains a characterization of whether and how the

¹⁰²⁷ This does not mean that Indigenous research participants necessarily agree with the framing of their experiences and concerns as environmental justice issues. In fact, many of the interviewees' statements showed more close connection with Indigenous sovereignty and resurgence frameworks. However, I chose to interpret their experiences through the EJ lenses as I focus on state-based processes and propose solutions within the positive legal systems.

new Canadian and BC laws in impact assessment, and Brazilian law reform proposals on environmental decision-making tackle the issues raised in the analysis. In the conclusion, I summarize the issues with impact assessment and the adverse effects of infrastructure on Indigenous peoples and reflect on the environmental justice principles and the experiences of research participants.

In both case studies, participants have referred to the struggles lived by Indigenous communities, particularly through the dams' impacts on their lifeways and through their fight for the state to hear their voices, acknowledge and respect their inherent rights. This fight takes place in the courts, in international bodies, in domestic legislative bodies, and through civil society mobilization.

2. Comparison of the Historical and Political Contexts of Site C and Belo Monte Case Studies

Despite the numerous differences between Brazil and Canada, especially the countries' legal and political systems, institutions, and differences on the distribution of wealth and wellbeing and safety, there are numerous similarities in the historical and political contexts that led to the proposal and approval of the Site C and Belo Monte hydro projects. In the Amazon region and the Peace region, the state governments incentivized the industrial exploitation of natural resources as strategies to colonization. Under the argument of promoting development in these regions, states have been permitting the taking up of land for industrial purposes. In the second half of the 20th century, both regions hosted intense expansion of energy developments, with the construction of dams in Brazil and BC, oil and gas in BC, mining and industrial agribusiness in Brazil.

Hydroelectricity is the primary source of energy in Brazil and in Canada, and the policy of dam building has been prominent in both countries since the mid-20th century. Both Site C and Belo Monte dams were first planned and proposed in the 1970s to form part of a series of hydro dams that were arguably needed to fulfill an energy demand. The Brazilian and the BC governments took a cost-benefit approach to argue that the projects would be beneficial to the larger society, providing electricity to urban centres and creating jobs for the regions. In the first iterations of Site C and Belo Monte, Indigenous peoples' mobilization was important for the rejection of the projects.

In recent proposals of Site C and Belo Monte, in the early 2000s, there were evident issues with the impact assessments and decision-making, particularly in regards to questions about the impartiality of the state and the possible conflict of interests between private and public sector actors, considering that both projects require public funding and that the proponent companies are, wholly or partially, state-owned. In both processes, there were also adaptations of laws to allow for the approval of the projects – the *Clean Energy Act* in BC exempted Site C from a BCUC review and an urgent decree by the Brazilian National Congress approved Belo Monte's impact assessment so that it could go ahead. Government representatives of BC and Brazil made clear statements that they would ensure the approval and construction of the projects even before the impact assessment results were available.

The state governments approved the projects, each costing billions of dollars. In order to ensure that Indigenous nations would agree with the construction of the dams, the proponents of Site C and Belo Monte signed impact benefit agreements or promised compensation measures to Indigenous communities. Indigenous nations disagreed among themselves regarding whether the projects should be constructed or not, which led to the division among the nations and the dismantling of some of the relationships that sustained resistance against the hydro dams.

Site C and Belo Monte significantly change the environmental flows of the Peace and the Xingu Rivers and their subsidiaries. As a result, both dams cause extensive and immitigable adverse effects on Indigenous peoples' multiple uses of lands and water, impacting traditional practices such as fishing, hunting, trapping, navigation, cultivation of relationships with other communities and nations, and access to traditional sacred sites. In both case studies, there were also concerns with the indirect effects of the dams, particularly the possibility that the energy from the projects would feed oil and gas extraction in BC and Alberta and large-scale mining in the Pará state. In addition, the projects contribute to sexual exploitation and violence against women by causing the migration of temporary workers and the creation of man camps. Nonetheless, even when considering the extensive and cumulative adverse effects of the dams, the cost-benefit approach adopted by the BC, the Canadian, and the Brazilian governments seem to prioritize industrial development and infrastructure building over the safety, livelihood, and wellbeing of local communities.

There are, however, a few differences between the Site C and Belo Monte's political and historical contexts, particularly related to the way colonization took place in both regions and the kinds of development that were established. In the Peace region, entering into Treaty 8 ensured the acquisition of control by the Crown over the territory. In Brazil, colonization took place through the state's affirmation of sovereignty over the territory and infrastructure building. In regards to the types of development, the Amazon hosts flagrant illegal natural resource extraction, such as mining and logging and illegal occupation of Indigenous reserves by settlers, showing evident weakness in the country's law enforcement. In BC, the Peace region hosts intensive oil and gas and fracking activities with unrestrained authorization by the state. In BC, there are concerns with Site C flooding prime agricultural lands in the Peace River valley, which would affect food production in the province. In Brazil, large-scale agriculture has been one of the main activities that put a strain on Indigenous peoples' traditional territories and ways of life.

In conclusion, despite the differences in the political and historical contexts of the case studies, both Northeast BC and the Amazon regions have hosted intense extractive and industrial development as part of a strategy of colonization of the territory. Historically, impact assessment practices of projects have not led to better outcomes for the health and maintenance of socio-ecological systems in those regions. The analysis shows that the Canadian, BC, and Brazilian governments have been conducting impact assessment as a mere technical process that validates political directives. The states have allowed project proponents to create division among Indigenous nations affected by infrastructure, through compensation agreements, in order to divert attention from the underlying issues related to overexploitation of resources, colonization, and marginalization of Indigenous peoples.

The cost-benefit approach adopted by those governments in environmental decision-making prioritizes industrial development and infrastructure building over the safety, livelihood, and wellbeing of local communities.

3. Comparison of the Legal and Regulatory Regimes

Canada and Brazil present many similarities in regards to the legal and regulatory regimes that regulate environmental decision-making. In both legal regimes, the establishment of Indigenous rights indicates that the states acknowledge the legitimacy of Indigenous people's presence before colonization. In both countries, state laws and courts recognise Indigenous peoples' right to live distinctively from the dominant society and acknowledge the right to use the lands that they occupy collectively. Indigenous peoples are assigned specific territories, reserves, which do not necessarily correspond to the integrity of their traditional territories. Reserves are state-owned lands where the federal governments of Brazil and Canada have jurisdictional authority. Both countries adopt the notion of sovereignty of the state over the territory and the fiduciary duty that the state has to protect Indigenous rights. Nevertheless, the state can infringe on Indigenous rights and allow the occupation of land and extraction of natural resources for development, even when it affects Indigenous communities' relationships with the lands. To decide about development proposals that affect Indigenous territories, the state must fulfill its obligation to consult with those Indigenous communities and accommodate their rights and interests. Indigenous peoples generally reject this colonial view of the state's jurisdiction over reserves and traditional territories and the legal possibility of infringing on Aboriginal and Indigenous rights.

In Brazil and Canada, environmental matters are of shared jurisdiction between the federal and the provincial or sub-national state governments. Both regimes mandate prior environmental assessment of projects with potential significant adverse effects. The terms of reference that the governments develop for each impact assessment and the impact statement that the proponent prepares determine the methodology and criteria for defining the affected areas and the spatial and temporal boundaries of the assessment. There is no guidance or criteria in the laws and policies about how to define affected areas. The decision-making about development proposals is centred on the Ministries of Environment, which are supported by their executive branches (CEAA and BCEAO, in Canada, and IBAMA in Brazil). The government may decide in favour of a project, with no legal obligation to justify the decision, regardless of the significance of the adverse effects. When a project with potentially significant adverse effects is approved, both legal regimes require the establishment of monitoring, mitigation and compensation measures to the environment and communities affected. Given these similarities, the evidences gathered through impact assessment practices do not necessarily influence the final decision to approve a project; this decision is often a political choice. In this case, governments simply direct the evidences gathered through the impact assessment to designing mitigation and compensation measures that the project proponent has to comply with.

Nevertheless, there are several differences between the Canadian and the Brazilian legal regimes in regards to Indigenous rights and environmental decision-making of

development proposals. While Brazil recognises Indigenous rights mostly through positivistic laws, such as the Constitution, statutes, and regulation, in Canada, Indigenous rights are recognised in the Constitution and defined through case law. To infringe on Aboriginal and Treaty rights and allow the take up of Treaty land for development, the Canadian state must follow common law principles established through court decisions, particularly the *Sparrow* and *Badger* decisions. Canadian case law also provides principles for the fulfillment of the duty to consult with Indigenous peoples, such as through the *Haida* decision. The Brazilian case law does not provide for those specific tools for interpretation of Constitutional rights.

In regards to the definition of the territories where Indigenous rights to land apply, in Brazil, the government recognises Indigenous territories through demarcation, a unilateral process in which the state decides on the boundaries of an Indigenous reserve. In Canada, historic and modern treaties, self-government agreements, and government-to-government agreements allow the state to acknowledge claims of Indigenous people's definition of their Indigenous territories through strength of claim analyses. However, Aboriginal rights also apply on unceded territories, where Indigenous nations assert their rights. Similarly, in Brazil, Indigenous peoples have a constitutional right to the lands that they traditionally occupy, even when not yet demarcated. However, impact assessment and environmental decision-making practices have not been fully complying with the rights of Indigenous peoples to the lands that they traditionally occupy. Both states have been adopting a narrow approach to the law by infringing on Indigenous peoples' rights, based on flawed environmental impact assessments that simply validate political choices.

Concerning jurisdiction over environmental matters, while in Canada, the provincial government has primary jurisdiction over natural resources, including water and hydroelectric power, in Brazil, the federal government has jurisdiction and ownership over all hydrological potential. Brazil has enacted an all-encompassing national law on the environment that defines principles, guidelines, and objectives for the creation of policies on environmental matters, as well as a tri-phase environmental decision-making process in which each of the three licences contains conditions that the proponent must fulfill in order to be granted the next stage licence, until final operation. In Canada, the impact assessment is a one-stage process that can be carried out by a government agency (federal or provincial) or through a panel of experts appointed by the government. The federal and provincial governments can work in cooperation through a jointly appointed panel when there is concurrent or overlapping jurisdiction. In Brazil, the government agency responsible for the assessment has to interact with other government agencies responsible for other aspects that intersect with the environment, such as FUNAI in aspects regarding effects on Indigenous rights. In Canada, the provincial and federal agencies are solely responsible for carrying out assessments, sometimes through expert review panels.

Regarding proposals for law reform or new legislation, while in Canada there are new laws at the federal and provincial levels that regulate impact assessments, which provide more opportunities for Indigenous peoples to participate, in Brazil, a package of bills on the federal level aims to streamline the decision-making process by facilitating the approval of projects that are 'strategic' for the country, such as hydroelectric power plants, mining,

railways and allowing resource extraction on Indigenous reserves. I discuss those changes in the regulatory regime and their implications for future development proposals in more detail in section five of this chapter.

In conclusion, impact assessment and environmental decision-making provide state governments with significant discretionary power to approve projects. The evidence brought forward through the impact assessment process does not bind decision-makers; on the contrary, the government may decide in favour of a project, with no legal obligation to justify the decision, regardless of the significance of the environmental adverse effects. Despite the fact that both legal regimes recognise Indigenous presence before colonization and Indigenous peoples' right to the lands they occupy (regardless of formal recognition from the state), the state governments often infringe on Indigenous and Aboriginal rights to traditional territories, based on claims of state sovereignty over the national territory and the need for economic development of the country. According to both constitutional regimes, the infringement of Indigenous and Aboriginal rights to land require much higher standards and justification from the state than impact assessment requirements are able to provide. This incoherence was evident in both reviews of Site C and Belo Monte. Therefore, impact assessment masquerades as a legal requirement for the protection of the environment and Indigenous peoples' rights, when in fact serves to legitimate a political decision to approve a project.

4. Comparison of the Regulatory Processes and Court Cases

The decision-making processes and the court cases challenging Site C and Belo Monte present significant similarities pertinent to this analysis. First, both impact assessment processes concluded that the projects would cause significant and immitigable adverse effects on Indigenous peoples. The impacts on hunting, fishing, language, and inter-societal relationships, burial and other spiritual sites were evident in both impact assessments. Moreover, in both processes, Indigenous peoples indicated that the dams would have further downstream effects on stretches of the Peace and the Xingu Rivers and on tributaries that were not considered in the assessment. Nevertheless, Indigenous people indicate that the decision-makers of both processes used an exclusively economic approach, ignoring the impacts of the dams beyond the spatial boundaries and specific areas that the proponent had defined through the environmental impact statement. While Belo Monte impact assessment did not include a cumulative impact assessment, Hydro BC produced a superficial cumulative impact assessment of the Site C dam.

Second, in both case studies, Indigenous peoples indicated that consultation was neither adequate nor sufficient and that a deeper and longer dialogue should have been established between the proponent, state government, and Indigenous communities. While the governments and proponents conduct impact assessments as a mere information gathering process, the information and evidence that were actually collected were not fully integrated by decision-makers. For instance, the destructive cumulative effects of development are apparent in both regions, but there was no robust consideration in the impact assessment and decision-making, since the Brazilian government did not conduct a cumulative impact assessment of Belo Monte, and that interviews with expert panel members indicated that

BC did not conduct an in-depth cumulative impact assessment. Further, the colonial governments did not use Indigenous governance tools such as land use and watershed planning, government-to-government agreements with Indigenous nations, and Indigenous declarations to inform the decision-making. Finally, to ensure the acceptance of Indigenous peoples, the proponents employed financial compensation (mitigation and compensation measures and impact benefit agreements), which led to divisiveness among communities.

Third, Site C and Belo Monte decisions led to public interest lawyers and First Nations filing judicial reviews of the dams' approvals and civil lawsuits claiming the infringement of Indigenous rights in domestic courts. Public interest lawyers in Brazil and First Nations in BC argued that the governments infringed on constitutional principles, laws, and Treaties. In Brazil, the Prosecutors argued the occurrence of 'ethnocide' against Indigenous peoples due to the lack of rigour in the assessment and decision-making. Similarly, First Nations argued in court that the adverse effects on their cultures and livelihood through the disturbance of their seasonal rounds would impact their survival as Indigenous peoples. Nevertheless, the courts affirmed that the impact assessment and decision-making processes observed all regulatory requirements, and accepted the governments' argument of national interest and energy security to deny claims for Indigenous rights. Both Site C and Belo Monte were subject to critiques from international organizations (Inter-American System of Human Rights and the UN Commission against Racial Discrimination), which recommended the suspension of the projects until full compliance with Indigenous rights. In both case studies, the decision-makers deliberately excluded consideration of possible infringement of Aboriginal/Treaty and Indigenous Constitutional rights.

Site C and Belo Monte regulatory processes present a few differences that are relevant for the analysis. Regarding public participation and consultation proceedings, in Brazil, differently to Canada, there is not a formal opportunity for public participants in the impact assessment, including in consultation with Indigenous peoples, to make official written submissions. Their participation is usually recorded through the minutes of public participation or consultation meetings. Further, the Brazilian Environmental Agency (IBAMA) registry does not make certain information and documents public. The full Belo Monte environmental impact statement report, for instance, is not available on their website. In Canada, all impact assessment documents are obtainable on the CEAA and BCEAO websites.

Regarding the assessment and decision-making procedure, while in Canada, an expert review panel carried out part of the assessment, based on criteria defined by the government agencies, and made recommendations to the Ministers of Environment; in Brazil, IBAMA and FUNAI, government agencies, conducted all three stages of the assessment, and also made recommendations to the Federal Minister of Environment. Even though, in Brazil, there is no legal provision for assessment conducted by an expert review panel, an independent panel of scientists and specialists produced a review of Belo Monte's adverse effects and made it publicly available.¹⁰²⁸ One particular characteristic of the Belo Monte decision-making is that the Brazilian government approved Belo Monte, granting a final

¹⁰²⁸ Santos & Hernandez, *supra* note 716.

licence, in breach of the conditions imposed on the proponent through the previous licences.

In conclusion, even though impact assessments indicate that projects would cause significant and immitigable adverse effects on Indigenous peoples and lands, these findings do not impede decision-makers to approve a project based exclusively on economic reasons. The courts supported this approach from the governments by establishing that the processes observed all regulatory requirements, and accepting the state governments' argument of national interest and energy security to deny claims of Indigenous rights. Nevertheless, the analysis shows that better-informed decision-making requires in depth cumulative impact assessments (considering the impacts of previous developments in the region), with the input from other colonial and Indigenous administrative tools such as watershed and land-use planning, strategic environmental assessment, government-to-government agreements, and Indigenous governments' declarations of the use of their territories. A thorough analysis of the cumulative impacts of the dams on Indigenous rights is one of the most crucial aspects of a project's review because Indigenous peoples' use of their traditional territory depend on the health of the watersheds as a whole, and not only to specific narrow areas.

5. Analysis of the Data Results

This section of the chapter focuses on an analysis of the research data, through the experiences of the research participants. This analysis is done in light of the similarities and differences in the historical, political, and legal contexts of both case studies, Site C and Belo Monte dams' decision-making processes and outcomes concerning Indigenous peoples' rights and ways of life.¹⁰²⁹ The section is divided according to the three broader aspects of environmental justice: Recognition of marginalized groups, procedural justice, and distributional justice. Based on the principles listed in chapter three, I identify the main issues regarding impact assessment of and decision-making about mega-dams and characterize how environmental justice principles tackle these issues in relation to Indigenous peoples.

In this section, the participants' experiences helped enlighten the conclusions from the historical, political, and legal comparisons between the case studies. The interviews illustrated some of the overarching issues described in academic texts and colonial governments documents. First, impact assessment practices have not led to better outcomes for the health and maintenance of socio-ecological systems in those case studies, especially because the state governments have been conducting impact assessment as a mere technical process that validates political directives. Second, consultation with Indigenous people and compensation agreements divert attention from the underlying issues related to overexploitation of resources, colonization, and marginalization of Indigenous peoples,

¹⁰²⁹ As mentioned in previous chapters, the division between data results and data analysis is not a perfect one, since it reflects the researcher's understanding of the differences between the description of the interviews (in chapters four and five) and analysis, interpretation, and comparison (in chapter six).

legitimizing the governments' priority focus on industrial development and infrastructure building over the safety, livelihood, and wellbeing of local communities.

Third, the evidence brought forward through the impact assessment process does not bind decision-makers; on the contrary, the state governments may decide in favour of a project, with no legal obligation to justify the decision, regardless of the significance of the environmental adverse effects. The finding that the hydro projects cause significant and immitigable adverse effects on Indigenous peoples and lands does not hinder decision-makers to approve a project based exclusively on economic reasons. Fourth, according to both constitutional regimes, the infringement of Indigenous and Aboriginal rights to land require much higher standards and justification from the state than impact assessment requirements are able to provide; as a result, the colonial governments use impact assessment as a tool to infringe on Indigenous and Aboriginal rights to traditional territories in favour of industry interests. Finally, better-informed decision-making requires in depth cumulative impact assessments (considering the impacts of previous developments in the region), with the input from other colonial and Indigenous administrative tools such as watershed and land-use planning, strategic environmental assessment, government-to-government agreements, and Indigenous governments' declarations about the use of their territories.

5.1. Recognition

As described in chapter three, recognition of Indigenous peoples, through an environmental justice perspective, has a two-fold meaning: First, it encompasses the acknowledgement, by the state, that Indigenous peoples are particularly vulnerable to environmental adverse effects, vulnerabilities that stem from the connection between people and land and the health of socio-ecological systems. Second, as a result of the recognition of Indigenous peoples' connection with the land, Indigenous peoples should hold decision-making power about development projects in their traditional territories.

5.1.1. Indigenous peoples' relationship with the land and waters

The first larger element of recognition that I address in this chapter is Indigenous peoples' relationship with and reliance on the land and waters. The literature and interviews revealed that Indigenous peoples require control and authority over their traditional territories, beyond the boundaries of reserves, in order to fulfill their responsibilities towards the environment. Indigenous peoples want to decide on the natural resource developments that take place on their territory because traditional ways of living and connecting with the land where they live are an essential aspect of their physical survival and the continuation of their identities as Indigenous peoples, as Denne-za, Cree, Xikrin, Arara, etc. Indigenous interviewees indicated that their governance systems have existed for millennia and have been successful in safeguarding the livelihood of communities, the relationships within and among communities, and the cultural and spiritual foundations of Indigenous peoples' existence. The relationship with the land embodies and sustains Indigenous identities. The interviews revealed that Indigenous peoples do not want to be 'assimilated' into mainstream society, as the integrationist model of national development and national

interest would like us to believe. This is an out-dated view and a strategy to remove lands from Indigenous peoples.¹⁰³⁰

However, state governments, while claiming sovereignty over Indigenous traditional territories, have been unable to exercise jurisdiction in a way that acknowledges the unique relationship of Indigenous peoples with the land. The case studies demonstrate that the loss of land and waters affect the livelihood, the intra and inter-societal relationships, the intergenerational relationships, and the transfer of traditional knowledge to the coming generations of Indigenous peoples. State-based processes have not recognized that the traditional ways of living and relating with the land are a cornerstone for Indigenous peoples' survival. Those processes do not consider that the impacts of development projects on Indigenous peoples are distinct and more profound than to mainstream society. As a consequence, state governments have created narrow and superficial regulatory frameworks to assess and decide about development and infrastructure. Economic principles and a cost-benefit approach are clearly defining elements in state-led impact assessment and decision-making of infrastructure and development projects. Moreover, traditional knowledge has very limited space, if any space at all, in shaping the decision or the project.

The worldviews of Indigenous communities on how to use and sustain natural resources are substantially different from the ways the state governments and corporations see natural resources as mere commodities and instruments for profit. The differences in worldviews create a profound discrepancy on the criteria that Indigenous and state governments apply to measure the impacts of any activity on the land and waters. Criteria for mitigation and compensation measures in state-led impact assessment and decision-making, for instance, are mostly based on economic 'development' of communities through impact benefit agreements and compensation agreements, and not substantively on the long-term sustainability of the social-ecological systems where projects are located. Criteria for defining the area affected by a project aim to narrow the spatial boundaries of the impact assessment as much as possible, defining specific and fixed locations on which Indigenous peoples supposedly exercise their rights. This narrowing of the area affected facilitates the proponent's carrying out of studies and consultation proceedings, even though Indigenous peoples expressed their traditional practices as dynamic and not restricted to specific localities.

Therefore, the lack of government recognition of Indigenous worldviews has led the states to design and apply narrow and superficial regulatory standards to assess and decide about development. Had governments taken seriously the well-documented fact that the relationship with the land and waters embodies and sustains Indigenous identities and lives, the requirements for assessment and decision-making of large projects could have been different. The differences in worldviews create a profound discrepancy on the criteria that

¹⁰³⁰ See, e.g., *Land Back: A Yellowhead Institute Red Paper*, by Yellowhead Institute (2019); APIB, "Nota de repúdio contra a declaração de Bolsonaro na ONU", APIB (blog), online: <<http://apib.info/2019/09/24/nota-de-repudio-contra-a-declaracao-de-bolsonaro-na-onu/>>. This is a statement by the Brazilian Articulation of Indigenous peoples (APIB) condemning President Bolsonaro's racist and assimilationist comment: "Indians are becoming human beings like us".

Indigenous and colonial governments apply to measure the impacts of any activity on the land and waters. Therefore, the Indigenous peoples' connection with lands and waters could inform environmental decision-making frameworks that accurately consider that Indigenous peoples are more extensively and profoundly affected.

5.1.2. Self-determination

The second broad aspect of recognition is the self-determination of Indigenous peoples and their responsibility for their traditional territories, an aspect that is closely connected and overlapping with Indigenous peoples' relationship with the land. Indigenous research participants affirmed in many occasions that they have jurisdiction over traditional territories and, consequently, the authority to control lands and waters. Interviewees often described how state governments undermine Indigenous authorities by not recognising their jurisdiction and systems of governance, and impose development that affects traditional territories. Indigenous interviewees mentioned a diverse range of ways through which their communities and governments have been asserting their authority, such as consultation protocols led by Indigenous Nations in the Xingu Watershed; First Nations in BC designing their own constitutions and formalizing some of their governance rules and systems, from Indigenous laws; and zoning practices through which BC First Nations establish 'no-go' zones where no development is allowed.

The realisation of Indigenous self-determination does not mean that state governments and proponents do not need to comply with state law, constitutional Aboriginal and Treaty rights, and international rights. On the contrary, the analysis of the interviews indicates that Indigenous peoples see the compliance with state requirements as a critical element of the fiduciary duty and accountability from states to Indigenous peoples. This accountability is a key factor in reconciliation and establishing a nation-to-nation relationship. The infringement of rights creates an atmosphere of and increases distrust towards the state, which hinders reconciliation and possible future collaboration. In Brazil, the state government has been breaching its constitutional obligations to Indigenous peoples, such as the demarcation of Indigenous reserves and protection of those lands and constitutional right to access to land and natural resources for traditional practices. And in Canada, the colonial government has been failing in the application of principles for the compliance with Treaty rights, as established in the *Badger* decision in Canada; the application of Treaty rights infringement test, as characterized by the *Sparrow* decision; and principles for consultation from the *Haida* decision. Administrative processes such as impact assessment and environmental decision-making must fully integrate and ensure compliance with the state's legal obligations to Indigenous peoples' constitutional rights. Further, Indigenous peoples should not be required to access courts to force the state to comply with those obligations. As interviewees indicate, Treaty and constitutional rights are integral to all instances and aspects of the relationship with the state government, including administrative decision-making. Interviewees in BC also made clear that Indigenous peoples' intent in signing Treaty 8 was sharing the land and not surrendering ownership of the territory to the Crown. Even though treaties do not exist in the Brazilian legal regime, constitutional rights embody the principle of sharing the land and acknowledging Indigenous peoples' control over their territories.

Therefore, in the exercise of their right to self-determination, Indigenous peoples have been designing and applying declarations, constitutions, and environmental governance and stewardship policies. It is critical that state-led impact assessment and environmental decision-making respect and implement those tools in recognition of the authority of Indigenous peoples affected by extractive and infrastructure projects. In addition, compliance with Aboriginal and Indigenous rights is essential to all instances and aspects of the relationship with the colonial government, in court and administrative decisions. Compliance with state requirements and standards is part of the fiduciary duty and accountability of the states to Indigenous peoples and absolutely necessary in establishing a nation-to-nation relationship.

5.2. Procedural justice

Procedural justice in environmental justice means that marginalized people affected by infrastructure projects can participate and meaningfully influence the environmental decision-making. Especially for Indigenous peoples, procedural justice means the government recognition of Indigenous peoples' decision-making authority over the territories where a project is proposed and the implementation of mechanisms for the exercise of Indigenous authority.

5.2.1. Free, Prior, and Informed Consent

Even though the requirement of free, prior, and informed consent (FPIC) is one of the principles listed under the recognition aspect of environmental justice, in chapter three, it overlaps significantly with important aspects of procedural justice, such as the limitations of consultation procedures and negotiations regarding mitigation and compensation measures. For this reason, I decided to discuss the participants' insights about FPIC in this section of the chapter, related to procedural justice in impact assessment. The processes of EIA and decision-making in both case studies were flawed, not complying with constitutional rights and the state requirements for deciding about infrastructure projects. Also, the frameworks for the assessment and decision-making proved to be systemically unable to address the issues that the interviewees indicated.

For instance, the data demonstrates that participants see consultation as inadequate both in the Belo Monte and the Site C case studies. Communities in both processes expected a much longer and more meaningful dialogue, in a nation-to-nation approach with the state, than what actually took place. Consultation in the impact assessment processes consumes too much time and resources from the communities to participate and does not offer an actual chance for Indigenous nations to influence the decision. The most prominent complaints about consultation were that the proponent and the state did not engage in more extensive conversations with the communities and did not introduce the project and listened to communities in a participatory way. Further, even though some communities had made clear that they did not consent to the project and had made substantial justification regarding their lack of consent, the state simply approved the project ignoring their position and concerns.

In both case studies, compensation and mitigation measures, such as commodities and cash lump sum payments to communities in Brazil and impact benefit agreements in BC, had a decisive role in leading Indigenous nations to provide their support for the hydro projects. The mechanism of ‘consent’ to projects brought about through compensation agreements favours the state governments’ and corporations’ bargaining power while reinforcing the communities’ dependence on economic propositions.

Aside from complaints about how the proponent and the state governments carried out consultation, the analysis also indicates that the mechanism of consultation is fundamentally ineffective due to its inherent and systemic inability to address claims of Indigenous peoples’ authority over traditional territories. The governments and proponents may adopt a deep scheme to conduct consultation with Indigenous peoples affected by the hydro dams, but do not offer the possibility for Indigenous communities’ positions to define the decision about the project. The analysis indicated that Indigenous nations required to have decision-making power on whether the project is constructed or not. A few Indigenous interviewees in BC stated that the lack of FPIC from some First Nations to the Site C dam was an infringement of Indigenous rights, specifically in relation to the UNDRIP. Indigenous interviewees in Brazil did not make explicit reference to FPIC but made clear that their position as Indigenous peoples and as legitimate owners of those territories make it necessary for the proponent to obtain consent to build the dam.

In conclusion, communities expected that environmental decision-making included a longer and more meaningful dialogue in equal terms between the state and Indigenous peoples affected than consultation was able to provide. Impact assessment is not consultation and should not be centred on consultation. Consultation supposedly serves a deliberative purpose, promoting the dialogue between the state and Indigenous governments, throughout the whole decision-making process. But in reality, it serves the interests of industry by weakening communities, by breaking their will to resist, and by shifting their focus to immediate economic compensation.

Indigenous peoples see the requirement of obtaining consent as a better way for states to engage with Indigenous peoples as self-governing nations. However, FPIC is not uncontested. There are different perspectives on what FPIC means and how it should be applied. International bodies such as the Inter-American Court of Human Rights and the World Bank have created requirements for FPIC. But those requirements do not necessarily match the expectations of Indigenous communities. In this research, an overarching idea among the interviews was that the requirement for consent is embedded in Indigenous community-based laws and policies. It is a nuanced process that should observe the governance tools enacted by Indigenous communities, such as constitutions, consultation protocols, declarations, and land-use plans. Mostly, the requirement for consent should allow projects’ reviews to result in the rejection of or changes to the proposed infrastructure projects. Community members insist that the right to require consent is part of Indigenous peoples’ inherent right to self-govern their traditional territories. Consent is not a simple yes or no mechanism. It permeates decisions made throughout the process such as the scope of review, the significance of the impacts, the criteria for the assessment, the physical and

temporal boundaries of the assessment. Therefore, the mechanisms of FPIC and joint decision-making cannot be seen as separate.

5.2.2. Transparency and accountability in the decision-making

In both case studies, the data indicates that the impact assessment and decision-making processes lacked transparency and accountability from the state and project proponents to Indigenous nations. In the Site C decision-making, for instance, there was not a proper form and space to address Aboriginal Constitutional and Treaty rights. And in the Belo Monte decision-making process, the state approved the project by deliberately dismissing the concerns from the government staff about the non-compliance with Indigenous constitutional rights and by overlooking the social and environmental conditions that the government agencies had established for the project's preliminary and installation licences. Nevertheless, the analysis demonstrates that, for Indigenous peoples, transparency and accountability, through the respect of constitutional rights, are essential elements in efforts towards reconciliation and in the establishment of a nation-to-nation relationship.

Another important element that hampered transparency and accountability in both case studies was the lack of justification by the state for the decision to approve the project, despite clear scientific evidence of the immitigable and extensive adverse effects of the hydro projects on Indigenous lands and communities. There was disappointment by the communities that the decision to approve the dams was political and economic rather than evidence-based. Providing justification for the decision based on the information that was brought forth through the regulatory process (process established by the state itself) is not just common sense but an essential step to establishing better relationships between the state and Indigenous nations.

The results also indicated that the spatial and temporal boundaries of the assessment did not reflect Indigenous peoples' perspectives of the adverse effects of the dams over their traditional territories. The reviews did not include a comprehensive picture of how Indigenous nations use the land, but only snapshots of localized areas. The government's decision to apply these narrow criteria hampered accountability of the assessment by reducing the scope of review. The processes did not reflect Indigenous peoples' holistic and dynamic understanding of their relationship with traditional territories. Decision-making in which Indigenous nations implement their own policies and criteria on how to define the spatial boundaries of the affected area would be a significant step towards equal partnerships with the state in managing the land and waters.

In conclusion, transparency and accountability from the state, through the compliance with of constitutional rights, are essential in efforts towards reconciliation and in the establishment of a nation-to-nation relationship. The lack of transparency and accountability allows the approval of infrastructure projects based solely on political and economic reasons. In addition, the spatial and temporal boundaries of the assessment must reflect Indigenous peoples' perspective of the adverse effects of the dams over their traditional territories, which could be done through the adoption of Indigenous governments' policies and criteria for managing the land and waters.

5.2.3. Partnerships between states and Indigenous nations

Finally, and intersecting with the aspects of recognition and procedural justice, mentioned before, Indigenous peoples understandably demand a ‘seat at the decision-making table.’ The results point to some examples of how the sharing of decision-making could take place. In BC, for instance, interviewees indicated the need for joint decision-making processes around specific infrastructure and extractive projects, through a co-management regime pre-defined through agreements between the state and the Indigenous nations whose traditional territories are affected. Participants suggested the definition of ‘no-go’ zones for development and the design of comprehensive regional strategic assessments based on land use planning agreements between states and Indigenous peoples. In Brazil and BC, the results indicated that Indigenous-led impact assessment studies could be a tool for better decision-making, providing a chance for the integration of traditional knowledge and communities’ policies into the process. In Brazil, Indigenous communities have been enforcing their own consultation protocols to force the state and proponents to comply with Indigenous laws. Those consultation protocols are not only procedural guidelines for decision-making but documents that fundamentally affirm Indigenous peoples’ control over traditional territories.

The research participants suggested a few examples of how states could ensure Indigenous nations a seat at the environmental decision-making table, through the recognition and implementation of Indigenous-led governance tools. The analysis shows that Indigenous peoples want to be treated as equal to states, as self-governing nations with authority over their traditional territories. Therefore, participants see compliance with Indigenous policies and laws and processes of joint assessment and joint decision-making, in agreements between colonial and Indigenous governments, as ways to better environmental decision-making. Joint decision-making is a process that helps ensure that the FPIC requirement is observed throughout the review process.

In conclusion, firstly, it is evident that consultation alone is fundamentally ineffective due to its inherent and systemic inability to address concerns from Indigenous peoples and ensure their self-determination. FPIC could be a better way for states to engage with communities, through Indigenous governance tools and agreements with the state, as long as compensation and benefit agreements are not used to ensure artificial consent by reinforcing communities’ economic dependence. Secondly, transparency and accountability from the state are critical for preventing the approval of infrastructure projects based solely on political and economic reasons and for advancing reconciliation and a nation-to-nation relationship. Thirdly, the implementation of Indigenous policies and criteria for managing the land and waters, in a joint decision-making process, could contribute to a better definition of the spatial and temporal boundaries of the assessment of adverse effects of the dams on traditional territories and to ensuring respect for Indigenous self-determination.

5.3. Distributional justice

Distributional justice is the acknowledgement that large infrastructure projects have significant and extensive disparate impacts on Indigenous people and lands and that

decision-making tools need to be able to address those disparate impacts. The assessment of cumulative effects from different extractive projects on Indigenous territories and the respect for how Indigenous nations would like to develop traditional lands and resources are especially important for the achievement of distributional justice, from an environmental justice perspective.

5.3.1. Cumulative impacts on Indigenous peoples' rights

In regards to distributional justice, both case studies are located in regions highly occupied by natural resources development activities, such as previous dams, logging, mining, oil and gas extraction, and fracking. The approval of the Site C and Belo Monte dams in these contexts increases Indigenous peoples' concerns about the cumulative impacts of development over the exercise of their rights and their ways of being on the land. Both impact assessments considered biophysical and social-ecological impacts but dissociated from other developments in the region and in conflict with Indigenous nations' conceptions of development. For instance, in both processes, the project proponent was the one defining the affected areas, in a very limited framing, with the validation of the government agencies. In Brazil, the assessment did not consider past developments and did not include strategic and regional assessments. In BC, the assessment included a very narrow concept of cumulative impacts, limiting as much as possible the area and timeframe of a superficial cumulative impact assessment of Site C in combination with other activities in the region.

Nonetheless, both hydro projects have been contributing and will yet contribute to intense processes of alteration of landscapes, as one Indigenous interviewee referred to as 'topocide'. For many communities, for instance, the construction of the projects impedes the exercise of traditional practices and the transfer of knowledge that require the existence of sacred places, which were or will be flooded by the dams. The construction of the projects also contributes to adding a strain on the land, waters, and animals, which are fundamental to Indigenous peoples' livelihood, in activities such as fisheries and hunting, and transportation. In some communities, the dams threaten Indigenous peoples' health by disturbing seasonal rounds, affecting traditional foods, and inserting industrialized goods into Indigenous communities. The influx of workers and the creation of workers' camps affect the social organization of Indigenous communities and particularly increase the risks of sexual exploitation of Indigenous women.

Therefore, impact assessments often consider the social and biophysical impacts of project, without meaningful cumulative assessment and with very limited criteria to define the spatial area affected. These limitations of impact assessment practices contribute to an intense process of alteration of the landscape, impeding the exercise of Indigenous traditional practices and the transfer of traditional knowledge that require the existence of certain ecosystems and sacred sites.

5.3.2. Conceptions of Development

In the face of these effects, the analysis of the case studies begs the question: When the state and industry refer to 'development' in these regions, whose 'development' are they talking about? For whom are the outcomes beneficial? In fact, some interviewees echoed

environmental justice scholars by referring to these regions as ‘sacrifice zones’, where local communities lose their sources of survival and wellbeing, for the ‘benefit’ of societies in distant places, in larger cities, such as Vancouver and São Paulo.¹⁰³¹ This is a policy that increases impoverishment, kills cultures, and escalates the conflicts between the larger society and Indigenous peoples.

Both impact assessments considered biophysical and social-ecological impacts in conflict with Indigenous nations’ conceptions of development. The data demonstrated that economic growth is not sufficient to ensure the health and wellbeing of Indigenous peoples. Indigenous peoples demand that development be understood in a much broader framework that integrates Indigenous views, and that ensures the future survival of Indigenous peoples and their cultures. This conception of development requires prior agreement between state and Indigenous governments on how to manage, preserve, and explore lands and natural resources. The data results pointed to the need for criteria previously established in agreements between Indigenous and state government, such as through land-use planning, watershed planning, and zoning agreements, and for respect to Indigenous-led environmental management plans and stewardship policies.

In conclusion, first, the limitations of impact assessment practices in evaluating the cumulative effects of projects and in defining the adequate boundaries for spatial and temporal assessment contribute to an intense process of alteration of the landscape, disturbing or inhibiting the exercise of Indigenous traditional practices and the transfer of traditional knowledge. Second, colonial policies on development create sacrifice zones, increasing impoverishment, killing cultures, and, most significantly, reinforcing and continuing colonization.

The conclusions from the data analysis reflect the issues of environmental justice and breathe life to the principles constructed, based on the literature review, in chapter three of the dissertation. Regarding the recognition aspect of environmental justice, the data confirms the need for jointly designed and conducted environmental assessments and decision-making between states and affected Indigenous nations, as well as the compliance with Indigenous laws and policies, based on their distinct relationship with the land and resources. In regards to procedural justice, the data analysis demonstrates the need for FPIC and joint decision-making through criteria built-in agreement between the state and Indigenous nations. Finally, in terms of distributional justice, the analysis highlights the need for cumulative impact assessments of the effects of development on Indigenous rights and the respect for Indigenous communities’ conceptions of development. The next section provides an overview of the recently enacted Canadian and BC impact assessment laws and a brief description of law reform proposals in Brazil and their implications for Indigenous rights. The next part of the analysis contains a discussion whether/how the law reforms address environmental justice issues, in particular, whether the reforms address the concerns of the Indigenous peoples affected by the hydropower projects.

¹⁰³¹ Scott & Smith, “‘Sacrifice Zones’ in the Green Energy Economy”, *supra* note 33.

6. Law Reform and Environmental Justice Issues in the Case Studies

In this section of the chapter, I provide a brief description of the recently enacted environmental impact assessment legislation in BC and the Canada, analysing whether the statutes and regulations address the issues discussed in the previous section. I also provide a brief description of the law reform proposals in Brazil that would contribute to streamline environmental assessment and facilitate the approval of development projects that affect Indigenous lands.

6.1. British Columbia Environmental Assessment Act, 2018

The BC *Environmental Assessment Act, 2018*,¹⁰³² brings about some new provisions that relate to the findings of the research. The recognition of Indigenous jurisdictions, the possibility of Indigenous-led impact assessments substituting state-led assessments, the obligation for the state government to seek consensus in various stages of the assessment, the requirement for consent in some cases, and the obligation for all stages of the assessment to be consistent with Indigenous and state land-use plans are some important ways the law addresses Indigenous peoples' concerns and environmental justice in environmental decision-making of large projects.¹⁰³³ Nevertheless, the analysis of the statute and regulations show that the provisions maintain the decision-making power solely in the hands of the provincial government and that they lack procedural mechanisms to ensure the respect for Indigenous inherent jurisdiction.

The BC *Environmental Assessment Act, 2018* begins with a characterization of the purposes of the BC Environmental Assessment Office (BCEAO), including first, to “*promote sustainability* by protecting the environment and fostering a sound economy and the wellbeing of British Columbians and their communities” and, second, to “*support reconciliation* with Indigenous peoples in British Columbia.”¹⁰³⁴ First, one of the ways that the statute aims to promote sustainability is to carry “out assessments in a thorough, timely, *transparent and impartial way*.”¹⁰³⁵ Secondly, the statute seeks to support reconciliation by “recognizing the *inherent jurisdiction of Indigenous nations* and their *right to participate* in decision making in matters that would affect their rights, through representatives chosen by themselves.”¹⁰³⁶

Section 5 of the *Environmental Assessment Act, 2018* establishes dispute resolution as the way the provincial government intends to address Indigenous nations' claims of possible adverse effects of proposed projects on Aboriginal and Treaty rights. According to s. 5(1) the “Minister may appoint individuals to facilitate the resolution of disputes” regarding the

¹⁰³² *Environmental Assessment Act*, *supra* note 903.

¹⁰³³ The wording related to consent and the ability to enter into agreements for consent, in the new *Environmental Assessment Act*, should be read in accordance with the recently enacted BC *DRIPA*, *supra* note 359.

¹⁰³⁴ *Environmental Assessment Act*, *supra* note 903.

¹⁰³⁵ *Ibid.* at 2(2)(A) [emphasis added].

¹⁰³⁶ *Ibid.* at s.2(2)(B) [emphasis added].

possibility of an Indigenous nation or its rights, recognised and affirmed by section 35 of the *Constitution Act, 1982*, be adversely affected by a project.¹⁰³⁷ The chief executive assessment officer makes a determination whether the project would adversely affect Aboriginal and Treaty rights and, when there is disagreement about that determination by an Indigenous nation, the dispute resolution facilitator acts to negotiate a viable outcome.¹⁰³⁸

The *Environmental Assessment Act, 2018* establishes the different circumstances in which the chief executive assessment officer must seek to achieve consensus with participating Indigenous nations. The chief executive assessment officer must seek consensus from Indigenous nations, for instance, if by examining the detailed project description, the chief executive considers that the project does not have a significant adverse environmental, economic, social, cultural or health effect, or will not have serious effects on an Indigenous nation or the rights recognised and affirmed by section 35 of the *Constitution Act, 1982*.¹⁰³⁹ Another example of a circumstance in which the chief executive must seek consensus is regarding the determination of whether Indigenous-led assessments would be accepted in the decision-making about a project with potential effects on the nation and on its rights recognised and affirmed by section 35 of the *Constitution Act, 1982*.¹⁰⁴⁰

Nevertheless, the *Environmental Assessment Act, 2018* differentiates between the obligations to *seek consensus* and to *obtain consent* from Indigenous peoples regarding the approval of a project. A project only requires consent if it proceeds on treaty lands *if the final agreement with the Indigenous nation requires this consent* or in an area that is the subject of an agreement, between an Indigenous nation and the government, *that requires this consent*, and is prescribed by the Lieutenant Governor in Council.¹⁰⁴¹ Finally the statute establishes that every environmental assessment stage must demonstrate consistency with land-use plans defined by the provincial government or by an Indigenous nation.¹⁰⁴²

Those *Environmental Assessment Act, 2018* provisions have important implications related to the findings of this research. First, regarding the statute's purpose of supporting reconciliation by "recognizing the *inherent jurisdiction of Indigenous nations* and their *right to participate* in decision making in matters that would affect their rights,"¹⁰⁴³ according to the research findings the recognition of Indigenous nations' *right to*

¹⁰³⁷ *Ibid.* at ss. 5(1), 14(1), and 14(2) The Lieutenant Governor in Council may make regulations respecting the powers and duties of dispute resolution facilitators.

¹⁰³⁸ *Ibid.* at s.14(2).

¹⁰³⁹ *Ibid.* at s. 16(1)(i)(ii).

¹⁰⁴⁰ *Ibid.* at s. 19.

¹⁰⁴¹ *Ibid.* at s. 7(a) and (b). At the time this dissertation was completed, there were only two modern treaty final agreements between BC and Indigenous nations that provided for the need to achieve consent in environmental assessment processes – the Maa-nulth and the Tla'amin final agreements: Tla'amin Nation & British Columbia, *Tla'amin Final Agreement* (2016); Maa-nulth First Nations & British Columbia, *Maa-nulth First Nations Final Agreement* (2011). at s. 22.1.2.

¹⁰⁴² *Environmental Assessment Act*, *supra* note 903.

¹⁰⁴³ *Ibid.* at s.2(2)(B) [emphasis added].

participate in decision-making, fundamentally lacks the capacity to actually lead to Indigenous peoples exercising their inherent jurisdiction. The right to participate is not a proper tool to fulfill Indigenous peoples' inherent jurisdiction, considering the inadequacy of consultation (currently the only opportunity through which Indigenous peoples can participate in environmental decision-making) in ensuring shared decision-making. Second, regarding the purpose of ensuring sustainability, in the statute and regulation, there are no provisions regarding how the assessment contributes to sustainability and whether the notion of sustainability used by Indigenous nations will influence the criteria and methods of the assessment.

Third, regarding dispute resolution between the state and Indigenous governments, it is evident that the intention of the provincial government is to resolve issues regarding impacts on Aboriginal rights through negotiation. The individual who will facilitate that negotiation, however, is appointed by a Minister of the state government, which puts in question the impartiality of the facilitator. These provisions for negotiations regarding Indigenous rights are frequent throughout the new statute, highlighting that the legislation does not ultimately address the underlying problem of lack of recognition of Indigenous peoples' jurisdiction and power to determine how they would like to use and develop their traditional territories. Fourth, the requirement for consent is much narrower than the requirement to seek consensus with Indigenous nations. It entails the existence of previous agreements between BC and the nation that may provide the consent, explicitly establishing the need for consent in environmental assessment and decision-making of projects. Further, there are still no legal provisions establishing how the process to achieve consensus should take place and what process is triggered when no consensus is reached.

Fifth, the possibility of Indigenous-led assessments being integrated into the state-led process indicates some progress in terms of recognition of Indigenous peoples' jurisdiction. Nevertheless, the final decision still rests in the hands of the state government. Finally, the legislation falls short on provisions for improving regional and strategic assessments, missing the opportunity to establish tools and partnerships with Indigenous nations to better assess the cumulative impacts of development and development policies on Indigenous traditional territories.¹⁰⁴⁴

In conclusion, the changes in the BC environmental assessment regime bring about new provisions that could contribute to better recognition of Indigenous peoples' jurisdiction, such as the integration of Indigenous-led assessments, requirement for consent (even if in very limited circumstances), and requirement that the chief executive assessment officer negotiates with potentially affected Indigenous nations. Nevertheless, most changes relate to procedural solutions, not necessarily pointing to a substantial change in terms of Indigenous peoples having decision-making authority and being able to work in collaboration with the colonial government as an equal partner. The state still has the authority to determine the methodology, criteria, decision-makers, and processes of the environmental decision-making and how Indigenous nations may participate.

¹⁰⁴⁴ *Ibid.* ss. 35, 73.

6.2. Canada Impact Assessment Act, 2019

The legal changes brought forth by the *Canada Impact Assessment Act, 2019*¹⁰⁴⁵ address some of the issues of environmental justice for Indigenous peoples in decision-making about development proposals, by acknowledging the jurisdiction of Indigenous nations, under certain circumstances, in issues related to the impact assessment, by creating the possibility that Indigenous-led assessments could be a substitute for state-led assessments, and by establishing more rigorous criteria for the decision-makers to justify their decision to approve a project. However, the legislation and policies still lack clear direction on how those provisions would function in practice.¹⁰⁴⁶

The *Canada Impact Assessment, 2019* explicitly acknowledges the jurisdiction of Indigenous nations over their territories, under specific categories: 1) Any body, including a co-management body, established under a land claim agreement and that has powers, duties or functions in relation to an assessment of the effects of a designated project; or 2) an Indigenous governing body that has powers, duties or functions in relation to an assessment of the effects of a designated project under a land claim agreement or under an Act of Parliament or an Act of the legislature of a province, including a law that implements a self-government agreement.¹⁰⁴⁷

Apart from the recognition of jurisdiction for impact assessment through self-government agreements or land claim agreements, the Minister responsible for the assessment may also (if authorized by the regulations) enter into agreements or arrangements with other Indigenous governing bodies to provide that the Indigenous governing body is considered to be a jurisdiction for the application of the *Impact Assessment Act, 2019* and to authorize the Indigenous governing body to exercise powers or perform duties or functions in relation to impact assessments (except making a decision whether an impact assessment is required).¹⁰⁴⁸

The *Impact Assessment Act, 2019* also provides for the possibility that an Indigenous-led impact assessment can be a substitute for a state-led assessment if the affected Indigenous body makes the request within the required timeframe and the Agency or the Minister considers that it is an appropriate substitute.¹⁰⁴⁹ If the Agency or Minister (in case of an assessment by a review panel) decides a substitution is not appropriate, the government still must engage in “consultation and cooperation with Indigenous jurisdictions.”¹⁰⁵⁰

¹⁰⁴⁵ *Canada Impact Assessment Act, supra* note 903.

¹⁰⁴⁶ There is still very little literature discussing the new Canada Impact Assessment Act, 2019. Exceptionally, for a comprehensive review of the changes in the federal impact assessment law, see Meinhard Doelle & A John Sinclair, “The new IAA in Canada: From revolutionary thoughts to reality” (2019) 79 *Environmental Impact Assessment Review* 106292.

¹⁰⁴⁷ *Canada Impact Assessment Act, supra* note 903.

¹⁰⁴⁸ *Ibid.* at s. 114(1)(e).

¹⁰⁴⁹ *Ibid.* at s. 31(1).

¹⁰⁵⁰ *Ibid.* at s. 21.

In regards to consent from Indigenous nations affected by project proposals, the *Impact Assessment Act, 2019* establishes no requirement for the proponent and government to achieve or seek consent. In fact, the new legislation reaffirms the Minister's decision-making authority. For instance, section 9(2) provides that "before making the order, the Minister may consider adverse impacts that a physical activity may have on the rights of the Indigenous peoples of Canada — including Indigenous women — recognized and affirmed by section 35 of the *Constitution Act, 1982*..."¹⁰⁵¹ The Minister is the authority that determines whether the project would have adverse effects over Indigenous peoples and their rights.

Regarding the integration of Indigenous knowledge, the impact assessment report must make clear how the Agency, in determining the projects' adverse effects, took into account and used any Indigenous knowledge provided with respect to the designated project.¹⁰⁵² Concerning the need for justification for the decision, in making a decision to grant approval to a project, the Minister and the Governor-in-Council must demonstrate that their decisions considered the factors listed on the impact assessment report, including "the impact that the designated project may have on any Indigenous group and any adverse impact that the designated project may have on the rights of the Indigenous peoples of Canada recognized and affirmed by section 35 of the *Constitution Act, 1982*."¹⁰⁵³

The *Impact Assessment Act, 2019* established some positive changes that may lead to more transparency regarding how decision-makers take Indigenous peoples and adverse effects on Indigenous rights into consideration in the impact assessment. The new legislation sets out some standards for the justification of the decision, which were missing in the Site C decision.

Even though the new provisions of the *Canada Impact Assessment Act, 2019* can potentially play an important role in addressing environmental justice issues for Indigenous peoples, there are significant critiques regarding how effective the changes could actually be. Regarding the recognition of Indigenous peoples' jurisdiction in impact assessment practices, it reveals more ample opportunities than the provisions in the *BC Environmental Assessment Act, 2018*, demonstrating the potential to address some of the recognition issues of environmental justice as characterized early in the chapter. Nevertheless, it is significant to note that the recognition of jurisdiction will not necessarily entail that an Indigenous nation may decide whether to approve a project. The colonial government decision-makers still hold discretionary power about whether to recognise the jurisdiction of an Indigenous nation with no self-government agreements or land claim agreements; as well as discretionary power to approve a project. Regarding the obligation of the government to consult and cooperate with Indigenous nations, the requirement is still vague. While Canadian case law extensively defines consultation, it is yet unclear, from the legislation

¹⁰⁵¹ *Ibid.* at s. 9(2).

¹⁰⁵² *Ibid.* at s. 59(3).

¹⁰⁵³ *Ibid.* at s. 63(d).

and regulation, what cooperation between colonial and Indigenous governments will require.

In conclusion, it is important to note that the changes that the new *Impact Assessment Act, 2019* establishes do not address some of the concerns of Indigenous peoples and UNDRIP provisions, such as the need for free, prior, and informed consent to approve development projects. Further, the new law maintains high levels of discretionary power in the hands of the colonial government. Some of the changes will depend on regulation to clearly set up the conditions of the possibility of engagement of Indigenous peoples in the decision-making. For instance, the definition of ‘cooperation’ between Indigenous and colonial governments is a significant aspect that will enable (or not) the realisation of real change in the advancement of Indigenous decision-making power in environmental impact assessment and decision-making.¹⁰⁵⁴

6.3. Environmental assessment and decision-making law reform proposals in Brazil

Project proponents of large-scale projects in Brazil often refer to environmental laws, particularly on environmental and social impact assessment, as burdensome hindrances that delay the approval of projects, which would affect the country’s economic development.¹⁰⁵⁵ In the last decades, several law reform proposals to change federal legislation have focused on streamlining environmental decision-making (licencing processes) and opening up opportunities for natural resource extraction and development. The proposals do not focus on impact assessment processes only but on the weakening of environmental decision-making laws and policies in order to accelerate natural resource extraction and development on Indigenous territories, mostly by exempting specific projects from impact assessments or unconstitutionally authorizing activities on Indigenous territories. This section provides a brief overview of some of those law reform proposals and how they relate to the overall conclusions of this research analysis.

First, the reform proposals aim at categorizing certain activities, such as agribusiness, mining, and hydropower production, as of public interest or strategic interest and simplifying these projects’ review processes by exempting them from conducting impact assessments, or excluding public participation and consultation procedures from those reviews. For instance, one law proposal from 2004 aims at regulating the environmental licencing process, including of projects with potentially significant adverse effects, which require environmental and social impact assessment. Through the years, the original proposal was changed to attend businesses and corporations’ interests by aiming to simplify the licencing process. The current bill creates a new type of licencing for projects with no significant impacts and for projects with significant impacts but of public interest, such as infrastructure for transportation, that would be based on the project proponent’s commitment to follow the conditions proposed, without the need for evaluation by the

¹⁰⁵⁴ Doelle & Sinclair, “The new IAA in Canada”, *supra* note 1046.

¹⁰⁵⁵ Chiara Bragagnolo et al, “Streamlining or sidestepping? Political pressure to revise environmental licensing and EIA in Brazil” (2017) 65 Environmental Impact Assessment Review 86–90.

environmental agency. The bill also intends to exempt agribusiness activities from licencing requirements and to allow for the sub-national states to free proponents of projects with significant impacts from conducting an impact assessment.¹⁰⁵⁶

The text of the bill does not include any mention to the licencing of projects that affect Indigenous territories, apart from the requirement that FUNAI must oversee those processes. There is no reference to consultation with Indigenous peoples or the requirement for consent for projects' approval. A number of environmental, traditional peoples, and Indigenous organizations signed a joint document indicating that the proposed changes would mean the end of impact assessment on thousands of protected areas, including 29% of Indigenous territories in the country.¹⁰⁵⁷

Another law reform proposal aims at simplifying the assessment and approval of development projects by creating a special one-stage process (as opposed to the current tri-phase), with no public participation or consultation opportunities, for projects that would be of economic significance to the country. The principles of the bill are streamlining the environmental assessment process, making it more 'efficient' and cost-effective.¹⁰⁵⁸ The federal government would be able to issue a decree determining that a certain project is of 'strategic interest', therefore of public utility and subject to the new special process.¹⁰⁵⁹ The government agency IBAMA would produce the term of reference; the proponent would submit the environmental impact studies, other government branches involved in the process (such as municipal administrations and FUNAI, in cases that Indigenous peoples are possibly affected) would submit their approval; and IBAMA and the Minister of Environment would issue their decision.¹⁰⁶⁰ The law would apply to Indigenous traditional territories and reserves, as long as FUNAI issues its approval to the project.¹⁰⁶¹

The justification section of this bill explains that the change in the legislation to allow for a streamlined assessment and decision-making for 'strategic development projects' is necessary due to the economic crisis that has come over the country. The justification also states "the environmental decision-making is considered the villain in delaying investments that the country needs so much."¹⁰⁶²

¹⁰⁵⁶ ISA - Instituto Socioambiental, "Organizações da sociedade civil criticam duramente o projeto de Lei Geral de Licenciamento", (12 August 2019), *ISA - Instituto Socioambiental* (blog), online: <<https://www.socioambiental.org/pt-br/noticias-socioambientais/organizacoes-da-sociedade-civil-criticam-duramente-o-projeto-de-lei-geral-de-licenciamento>>; Câmara dos Deputados, Brasília, 8 June 2004, Projeto de Lei n. 3729/2004 e substitutivos, (2004) Câmara dos Deputados (Brazil).

¹⁰⁵⁷ *Ibid.*

¹⁰⁵⁸ Senado Federal, Brasília, 29 September 2015, Projeto de Lei n. 654/2015, (2015) Senado Federal (Brazil), at article 3.

¹⁰⁵⁹ *Ibid.* at art. 1.

¹⁰⁶⁰ *Ibid.* at art. 4.

¹⁰⁶¹ *Ibid.* at art. 8.

¹⁰⁶² *Ibid.* at Justification section [translation by the author].

It is important to emphasise that the projects that the federal government often characterizes as ‘strategic’ are energy projects, mainly hydroelectric and mining proposals, which have been mostly taking place in the Amazon region, where most Indigenous reserves are located. If enacted, the new law would conflict with the international laws on Indigenous rights, by excluding consultation with Indigenous peoples in cases where the project affects Indigenous territories. The new law would undermine all aspects of recognition of Indigenous peoples as self-determined nations and contribute to dismantling the national environmental and social impact assessment and decision-making legal framework and protection of Indigenous rights in the country.

Second, the proposals target specifically Indigenous territories by allowing certain extractive and industrial activities, without any provisions that enable the exercise of Indigenous peoples’ free, prior, and informed consent or any form of joint assessment and decision-making framework that would enable a nation-to-nation approach between the state and Indigenous nations. For instance, one law reform proposal aims at regulating the exploitation of mineral resources and hydraulic potential on Indigenous lands.¹⁰⁶³ These activities do not necessarily fall into the category of projects with potentially significant adverse effects; therefore, they do not always require environmental assessments. The submission of this proposal at the beginning of 2020 caused a strong reaction by Indigenous movements and their supporters, who argue that the bill is unconstitutional.¹⁰⁶⁴ This is so because the 1988 Federal Constitution states that “[t]he lands traditionally occupied by Indians are intended for their permanent possession and they shall have the exclusive usufruct of the riches of the soil, the rivers and the lakes existing therein.”¹⁰⁶⁵ The Constitution also determines that the exploitation of hydro energetic potentials in Indigenous lands requires authorization from the National Congress, consultation with the Indigenous communities, and their participation in the project’s revenues.¹⁰⁶⁶ Considering that the Constitution states that Indigenous lands are of Indigenous peoples’ *permanent possession* and the resources are of their *exclusive usufruct*, the logical conclusion is that any development by non-Indigenous peoples on those lands, without the Indigenous nation’s consent, is unconstitutional.

It is evident that the law reforms on licencing and impact assessment in Brazil are at odds with international laws on Indigenous rights, such as the UN Declaration on the Rights of Indigenous peoples. Moreover, the proposals diverge from the newly enacted legislation on impact assessment in BC and Canada, by intending to open up Indigenous territories to exploitation, without any consideration for Indigenous jurisdictions, free, prior, and

¹⁰⁶³ Câmara dos Deputados, Brasília, 6 February 2020, Projeto de Lei n. 191, (2020) Câmara dos Deputados (Brazil).

¹⁰⁶⁴ ISA - Instituto Socioambiental, “Parlamentares pedem devolução de projeto contra Terras Indígenas; Maia promete analisar”, (13 February 2020), ISA - Instituto Socioambiental (blog), online: <<https://www.socioambiental.org/pt-br/noticias-socioambientais/parlamentares-pedem-devolucao-de-projeto-contra-terras-indigenas-maia-promete-analisar>>.

¹⁰⁶⁵ *Constitution of the Federative Republic of Brazil*, *supra* note 201 at art. 231, para 2.

¹⁰⁶⁶ *Ibid.* at art. 231, para 3.

informed consent, or consultation.¹⁰⁶⁷ The reform proposals do not address at all the conclusions from the research analysis; on the contrary, if approved, they would reinforce the state's conception of development based on the overexploitation of natural resources, without proper oversight from government's technical agencies, and without Indigenous' peoples capacity to exercise their right to self-determination. The proposals demonstrate no consideration from the state for cumulative impact assessments, particularly how the combination of adverse effects from various 'developments' impact Indigenous peoples, and no consideration for Indigenous peoples' declarations and protocols about the use of their lands. Finally, the proposals aim at legitimating the justification for infrastructure projects based on economic development, despite the intensification in the alteration of landscapes and water systems that are essential for Indigenous communities.

In BC and Canada, even though the law reforms address some of the environmental justice aspects discussed in the dissertation, laws and regulations still ensure control of environmental decision-making in the hands of the state. Moreover, the new laws would require further regulation that enables positive changes to gain traction, and that ensure that environmental assessment is broader combined with Indigenous and state tools of land planning and management. In Brazil, reform proposals are entirely in conflict with environmental justice principles, and if enacted, would contribute to the dismantling of Indigenous rights in the country and an increase of the influence of corporations and industry in the approval of projects.

7. Conclusion

The analytical framework of this research draws from the environmental justice literature and applies the three aspects of environmental justice, most consolidated in the literature, as the categories by which I organize the data results and conclusions. Based on the literature, I constructed a set of principles, which serve as the framework to analyse the data. In this conclusion section of the chapter, I review the broader issues from the analysis in connection with the literature on and the principles of environmental justice. Part of the goal of this research project is filling in the gaps of the academic literature and expanding the notion of environmental justice. The analysis of the case studies is relevant to demonstrate the reproduction of the injustices that state-centred environmental decision-making generates on marginalized communities, in particular Indigenous peoples, both in developed and developing countries. But the analysis also indicates how the environmental justice framework falls short in grappling with specific issues that are vital for Indigenous peoples in relation to environmental decision-making and the integrity of their territories.

Scholars contributed to define environmental justice around the issues of recognition of affected groups, procedural justice, and distributive justice,¹⁰⁶⁸ which are manifestly present in the results of this research. This framework serves well as a lens through which

¹⁰⁶⁷ See, e.g., a study comparing the Canadian law reform and the Brazilian law reform proposals by Alberto Fonseca & Robert B Gibson, "Testing an ex-ante framework for the evaluation of impact assessment laws: Lessons from Canada and Brazil" (2020) 81 Environmental Impact Assessment Review 1-12.

¹⁰⁶⁸ Schlosberg, *supra* note 51; Walker, "Beyond Distribution and Proximity", *supra* note 86.

to view environmental justice broadly and in different historical, political, and legal contexts. A contemporary part of the literature indicates that Indigenous peoples are subject to specific injustices in environmental decision-making, mainly due to their distinct relationship with and their reliance on the land and resources (which are not properly recognised in state laws), and to the power asymmetries between states, industry, and Indigenous communities.¹⁰⁶⁹ Kyle Whyte, for instance, describes settler colonialism as a form of ecological domination that violently disrupts human relationships with the environment.¹⁰⁷⁰ Catherine O’Neil highlights some of the specific vulnerabilities of Indigenous peoples to environmental disturbances when compared to other social groups.¹⁰⁷¹ This process of disturbance, which is clearly seen through the experiences of Indigenous peoples with the approval and construction of the Belo Monte and Site C dams, significantly changes the ways that communities relate with lands and rivers. Additionally, it generates frustration with the control of decision-making power exclusively by the state and its representatives.

In the literature on environmental justice and impact assessment, authors emphasise that impact assessment protocols serve to reinforce power asymmetries between the state, industry, and Indigenous peoples.¹⁰⁷² Impact assessment usually focuses on procedural fairness alone, providing the decision-making with the appearance of a democratic, participatory process.¹⁰⁷³ The analysis undertaken in this chapter aligns with this body of literature by indicating, for instance, the inadequacy of consultation to ensure participation of Indigenous peoples in the decision-making process and the states’ non-compliance with Aboriginal and Treaty rights, Indigenous constitutional rights, and Indigenous international rights. In terms of possible ways to address environmental justice issues, the analysis echoes authors’ proposals, such as the implementation of FPIC and equal partnerships between the states and Indigenous nations,¹⁰⁷⁴ the respect for Indigenous laws and policies in environmental decision-making, and the support for conceptions of community-led development.¹⁰⁷⁵ It became clear, both from the literature and the interviews, though, that EIA processes alone could not ensure the achievement of environmental justice. Environmental assessment, in case of large-scale projects, is only one tool that, if restructured and combined with broader decision-making, management, and conservation tools and plans, particularly Indigenous-led policies and plans, can contribute to environmental justice for Indigenous peoples.

¹⁰⁶⁹ See, e.g., Agyeman et al, *supra* note 54; Nagle, *supra* note 148; Tsosie, *supra* note 438; O’Neill, *supra* note 90.

¹⁰⁷⁰ Whyte, *supra* note 64.

¹⁰⁷¹ O’Neill, *supra* note 90.

¹⁰⁷² Holifield, “Environmental Justice as Recognition and Participation in Risk Assessment”, *supra* note 90; Muir, “Closing the regulatory gap”, *supra* note 363.

¹⁰⁷³ Aguilar-Støen & Hirsch, “Environmental Impact Assessments, local power and self-determination”, *supra* note 47; Urkidi & Walter, *supra* note 228.

¹⁰⁷⁴ Heinämäki, *supra* note 171 at 193.

¹⁰⁷⁵ Baker, *supra* note 519.

It is evident in the literature that certain environmental justice scholars focus on the process of environmental decision-making, others on the specific adverse effects on marginalized communities, and others on the lack of proper recognition of affected communities, including Indigenous peoples. This research project proposes to expand the notion of environmental justice by highlighting that the interdependence between recognition, process, and distribution of effects is particularly important for Indigenous peoples in practices of impact assessment and decision-making. The research connects the dots between the numerous decisions that are made within the relationship between the state and industry, and in the regulatory decision-making process, the lack of Indigenous peoples' authority, and the cumulative impacts of development on Indigenous peoples and their territories. In this dissertation, I examined the whole processes and the decisions that governments and courts make along the way, as well as the pressure that industry and the notion of economic development exercise over the approval of specific projects. The results highlight the lack of an integral vision of environmental justice, one that considers the regions and territories affected, the ways Indigenous peoples relate with the land, waters, resources, and how Indigenous decision-making authority has significant consequences for the assessment of impacts and the quality of the decision. This interconnectedness between recognition, process, and distribution points to the need for a more integral approach to environmental justice. This integral approach can only be developed by looking beyond EJ, and examining Indigenous scholarship on the connection between the human and non-human dimensions and the inherent authority of Indigenous peoples over traditional territories. Developing this approach would require further research that the current literature on environmental justice is unable to support.

However, some of the conclusions from the analysis demonstrate this interconnectedness between the aspects of environmental (in)justice through the failures of environmental decision-making and its pervasive impacts on the lives of Indigenous peoples. One primary connection that can be made, for instance, is how the loss of land and waters, caused by 'development' projects, affect the livelihood, the intra and inter-societal relationships, the intergenerational relationships, and the transfer of traditional knowledge to the coming generations of Indigenous peoples. In not recognising that traditional ways of life and relating with the land are a cornerstone for Indigenous peoples' survival and, therefore, disregarding that the impacts of projects on Indigenous peoples are distinct and deeper than to the mainstream society, colonial governments have created narrow and superficial regulatory frameworks to assess and decide about development and infrastructure. These frameworks are reinforced by the governments' non-compliance with the standards of Treaties with Indigenous peoples and Constitutional provisions, especially in administrative decision-making, and by a narrow concept of 'consent' based on compensation agreements that favour the corporations' bargaining power while reinforcing the communities' dependence on economic proposals. This dependence comes to a full cycle when Indigenous peoples cannot rely on their lands and waters anymore for their survival.

The analysis explored some main issues that are fundamental for achieving environmental justice in the impact assessment and decision-making of large hydropower projects, and infrastructure and development projects in general. First, interviewees indicated that

Indigenous peoples and their governance systems have existed for millennia and have been effective in safeguarding the livelihood of communities, the relationships within and among communities, and the cultural and spiritual foundations of Indigenous peoples' existence. Decision-making centred on the state often disrupts the balance of those relationships, without consideration for Indigenous communities' conceptions of development. Second, Treaty and Constitutional rights are integral to all instances and aspects of the relationship between Indigenous peoples and the colonial governments, including administrative decision-making. Colonial governments have been infringing on Indigenous rights without rigorous application of the state's legislative and jurisdictional principles. Economic development has been the sole justification for the infringement of rights and decision-making has been lacking accountability by not providing justification based on the information that was brought forth through the regulatory process. Third, the right to consultation as framed in state laws is not a proper tool to acknowledge and consider Indigenous peoples' concerns. In current processes, industry and governments 'satisfy' the requirements of consultation through compensation and impact benefit agreements, reinforcing an artificial form of 'consent' based solely on communities' dependence on industry's economic power.

Based on these conclusions, the next chapter outlines some practical recommendations to help stop this cycle of environmental injustice for Indigenous peoples through environmental decision-making and help states adopt a more integral perspective of EJ through their laws and policies. The conclusions signal that impact assessment and decision-making in which Indigenous nations implement their own laws and policies would be a significant step towards equal partnerships with the state in managing the land and waters. As a result, equal partnerships could lead to decision-making that better addresses Indigenous peoples' concerns. The analysis also highlighted the need for respect for and integration of Indigenous-led assessments and Indigenous policies and declarations in decision-making, as well as more comprehensive cumulative assessments of the impacts on Indigenous rights. This may require joint decision-making processes and FPIC around infrastructure projects, through co-management regimes pre-defined through agreements between the state and the Indigenous nations whose traditional territories are affected.

Chapter 7: Conclusion

1. Introduction

This research project aimed to investigate whether state-led impact assessment, as one tool for environmental regulatory decision-making, could address Indigenous peoples' concerns regarding the disparate adverse effects of large hydropower dams. The research examined the literature on environmental justice for Indigenous peoples, with a focus on proposing solutions for state laws and policies on environmental decision-making not addressing the inequities of large development projects on Indigenous peoples. This chapter contains the conclusions from the comparative case study analysis and recommendations on how state laws and policies may adopt a more integral approach to environmental justice in impact assessment and environmental decision-making of infrastructure projects that affect Indigenous peoples and lands.

It is critical to observe that the Site C and Belo Monte case studies are situated in particular contexts and show particular features that influenced each decision-making process and outcome differently. The specific characteristics of the political, social, cultural, and environmental realities of the regions where the projects are located and their legal regimes, as well as the specific features of the development proposals, are relevant in defining policies for infrastructure decision-making.¹⁰⁷⁶ Therefore, each place and proposal require particular processes. Nevertheless, what is central in both case studies is that Indigenous peoples and non-Indigenous organizations allied with Indigenous peoples raised doubts regarding impact assessment. First, regarding its abilities to correctly identify the projects' adverse effects on Indigenous peoples and traditional territories and, second, to offer real possibilities for changing or rejecting a project based on communities' claims of the impacts on their traditional lands and waters.¹⁰⁷⁷

The features of both case studies are the reality of many review processes of large infrastructure proposals taking place worldwide. The current EIA frameworks of different legal regimes are unable to ensure that consultation and participation happening with the people affected by projects actually influence the decision-making. The discretionary authority of state government decision-makers allows for disregarding the discussions that occur at the community level and even among the state officials and experts who gather and interpret information about the projects.

The main conclusion of the research is two-folded. First, state-centred decision-making has been enabling environmental injustice by not acknowledging Indigenous peoples' concerns with the specific and disparate adverse impacts of development on their rights and their

¹⁰⁷⁶ Muir, "Effectiveness of the EIA for the Site C Hydroelectric Dam Reconsidered", *supra* note 1000 at 1850014-11.

¹⁰⁷⁷ In Canada, this is partially addressed today through traditional land use reports that are considered in the EIA process. See, e.g., Stevenson, *supra* note 192; Ritter et al, "Environmental impact assessment in Brazilian Amazonia", *supra* note 192. The latter study examined three EIA processes in the Brazilian Amazon and concluded that all of them "fall short of properly assessing the expected impact of infrastructure development in situ, and that their results had little or no effect on policy decisions."

ways of life. Second, state-centred decision-making leads to environmental injustice, as it disregards Indigenous decision-making authority over traditional territories and claims of Indigenous and Aboriginal rights' infringements.

Following these conclusions, a central argument in this dissertation is that Indigenous peoples' decision-making authority imposes a fundamental moral aspect to state-based review processes, considering that Indigenous peoples are the original occupants of the lands that development intends to alter, holders of special rights to land. Indigenous peoples' decision-making authority also adds quality to impact assessment. Their perspectives often contribute to a more holistic approach to nature than the state's approach, adding a layer of rigour to the criteria that define the use of land and natural resource.

An integral approach to environmental justice in impact assessment and environmental decision-making laws and policies may contribute to better transparency and accountability, compliance with Aboriginal and Indigenous rights, self-determination of Indigenous peoples, and to the design of more accurate criteria to approach the spatial and temporal aspects of the assessment. Although the recommendations below intend to address those issues, I acknowledge that achieving environmental justice for Indigenous peoples might require additional and more profound political and legal reforms that EJ is unable to propose. The realization of EJ in environmental decision-making would also require that government representatives and decision-makers personally and collectively commit to justice, not merely and bureaucratically follow formal rules.

One overarching lesson from this research is that the presence of struggle helps the parties to see clearly the point of tension in their relationship. It means there *is* a relationship to be worked on. This point of tension is fundamental to the realisation that dialogue is necessary; that a different way of approaching environmental decision-making is urgent; that future collaboration will require mutual recognition of state and Indigenous authorities, and, therefore, substantial changes in environmental decision-making procedures. The struggle element is part of how this research approached the case studies, as indicated in chapter two. It is part of the decolonization component of the environmental justice theory, revealing the concrete effects of marginalization in day-to-day lives. But struggle is also a constructive element of EJ because it can hold the tension and propose solutions. It challenges us to not *stay* in the place of critique but to develop further needed laws and policies that reflect the learning produced through the struggle process. Struggle (in action) is part of the reconciliation component of EJ theory because it helps transform critiques into solutions that will concretely benefit people's lives. The conclusions and recommendations from this research are my small contribution to not letting the struggles of the peoples of the Peace and the Xingu Rivers watersheds be in vain.

2. Recommendations for State Laws and Policies on Impact Assessment and Environmental Decision-making

2.1. Recognition of Indigenous nations as jurisdictions

The first recommendation stemming from this research analysis is the broad recognition of Indigenous nations as jurisdictions, including nations that have signed historic and modern treaties and agreements with the states, nations with self-governing agreements with the states, nations that have collaborated with the state in creating land-use and watershed plans, nations that have enacted stewardship policies, environmental and territorial governance policies, and consultation and consent community-based protocols regarding the proposal of development projects in their traditional territories. The principles underlying this recommendation are the inherent rights and the special legal status of Indigenous peoples in constitutional regimes and International laws (especially UNDRIP), including specific Indigenous peoples without a formal agreement with or recognition from the states. The implementation of consultation and cooperation requirements regarding Indigenous peoples in EIA and decision-making implies that state governments only partially acknowledge the right of Indigenous peoples affected to influence the management of their traditional land. The non-acknowledgement of full jurisdictional authority, especially of Indigenous peoples without demarcated areas or land claim agreements and other forms of manifestations of the state's formal acknowledgement, violates international standards and specific constitutional regimes, such as the ones in Brazil and Canada.

2.2. Compliance with existing Indigenous and state-led plans and policies for the use of lands and waters

The second recommendation is that EIA and environmental decision-making integrates existing Indigenous-led governance instruments and laws that affirm Indigenous peoples' perspectives on their relationship with land and waters. These are instruments such as land-use and watershed plans, community-led environmental stewardship policies, declarations, consultation, and consent protocols, as well as existing plans and governance tools that were constructed in partnership between Indigenous and state governments. In this regard, the review and decision-making processes would require the state governments to acknowledge different forms of Indigenous governments, organizations, and representations. Indigenous governance systems may present various features and structures when compared to state governance systems. For this purpose, representatives of Indigenous governments should be able to participate as decision-makers to contribute to the accurate application of Indigenous-led governance instruments and laws in the environmental assessment and decision-making.

2.3. Independent third-party bodies with equal participation of Indigenous nations and the state, with shared decision-making to jointly design and conduct the process

The third recommendation for EIA and environmental decision-making is that the Indigenous nations that may be affected can enter a joint process. Once a specific project

is proposed that would potentially and adversely affect traditional Indigenous territories (based on the concept of jurisdiction described in recommendation number one), Indigenous nations may opt in a joint process. In this process, the state and Indigenous governments appoint experts to form a joint panel representing the different jurisdictions involved, with equal decision-making power. Indigenous people would submit whether they consent to the carrying out of a joint decision-making process.

Once the joint process begins, the Indigenous nations and members of the communities potentially affected could provide submissions (orally or written) to the panel, in the format chosen by the community, on whether and how the project would affect their traditional territories. A joint decision-making process would also allow for Indigenous community-led assessments to substitute state-led assessments or for all jurisdictions involved to collaborate in jointly designing and conducting the impact assessment.

The panel members are responsible for bringing to the panel all the state and Indigenous policies pertinent to the decision, governance tools and studies relevant to the infrastructure decision-making. The joint panel, the state government agencies, and Indigenous nations' government members and council (depending on the internal organization of each of the nations) analyse whether the project is in line with the state's and Indigenous laws, policies, and governance tools. During the process, the panel has to agree on the criteria and decisions about the significance of the impacts, scoping of the assessment, which Indigenous communities that the state should seek FPIC from, the requirements for FPIC, the criteria for project's refusal or approval, and the members of a conflict resolution adjudication body. After the studies are complete, the joint decision-making process should provide the opportunity for Indigenous nations' governments to grant or refuse FPIC to the infrastructure project.

2.4. Justified and accountable state governments' decisions

The fourth recommendation stemming from this research analysis is that impact assessment and environmental decision-making processes would require legal mechanisms to bind high-level decision-makers (Ministers, Cabinet, Governor-in-Council) to the evidence gathered in the project review, to the positions sustained by communities, and to the standards of constitutional, Treaty, and International Indigenous rights. This recommendation applies to either scenario of a joint or a state-led decision-making process. The principle underlying this recommendation is that administrative decision-making must comply with constitutional and international requirements and standards.¹⁰⁷⁸ The decision would accompany the justification as to why approve a particular project, proof as to whether Indigenous nations had the opportunity to enter a joint assessment and decision-making process, evidence that the decision adequately followed case law principles for compliance with Treaty and constitutional rights and Indigenous rights, and proof that the state government obtained FPIC from the Indigenous peoples potentially affected.

¹⁰⁷⁸ Muir, "Effectiveness of the EIA for the Site C Hydroelectric Dam Reconsidered", *supra* note 1000 at 1850014-12.

2.5. Independent third-party bodies to adjudicate conflict resolutions related to Treaty and constitutional Aboriginal/Indigenous rights infringement regarding development proposals' decision-making

The research data showed that the state judicial systems are not entirely autonomous from the state governments' interests and that court cases are often a financial burden to Indigenous nations. Therefore, in the event of a dispute between the state and Indigenous governments regarding whether the state has infringed on Aboriginal/Indigenous rights, the state and Indigenous governments, or a joint panel responsible for the assessment, will appoint experts, with the representation of the jurisdictions involved, to analyse the dispute. This dispute resolution body must appreciate and decide all issues regarding potential Aboriginal/Indigenous rights infringement before the case can be taken to court. Scholars, Indigenous elders, councillors and legal practitioners could form this dispute resolution body, responsible for applying international law and constitutional principles. The principle underlying this recommendation is that administrative reviews must not dismiss the appreciation of possible infringement of rights.

2.6. Strategic and Regional Environmental Assessment to integrate Indigenous-led land use plans and watershed plans and to ensure priority to Indigenous-led development initiatives

Finally, the sixth recommendation is the design and implementation of plans, programs, and policies through Strategic and Regional Environmental Assessments on how multiple uses of lands and waters must take place in a specific region, including thresholds and zoning of potential development proposals. States and Indigenous peoples would jointly design and conduct Strategic and Regional Environmental Assessment and necessarily integrate any plans, programs, and policies created by Indigenous peoples. The assessments would be a critical opportunity for state governments to consider Indigenous peoples' conceptions of sustainability and development. It would also be an opportunity for Indigenous peoples to potentially provide FPIC to comprehensive plans, programs and policies for the region and establish their priorities in terms of economic development for their territories and communities.¹⁰⁷⁹

3. Conclusion: Can Impact Assessment Account for What It has Traditionally Dismissed?

Impact assessment has historically failed in addressing the demands of environmental justice for Indigenous peoples affected by development proposals. Impact assessment failed historically by lacking procedural mechanisms to listen and account for Indigenous peoples' concerns and positions regarding those proposals. Currently EIA fails by disregarding what Indigenous peoples have been demanding through existing participatory tools, such as consultation. Impact assessment and environmental decision-making have also been deliberately disregarding the impacts on Indigenous and Aboriginal rights by arguing that administrative processes and decisions are not the proper fora for considering

¹⁰⁷⁹ *Ibid.* at 1850014-30.

possible rights infringements or that the need for infrastructure developments justifies the infringement of rights.

In analysing EIA and environmental decision-making processes and outcomes, I concluded that those administrative tools have been inadequate in ensuring an integral approach to environmental justice when considering the impacts of projects on Indigenous peoples' relationship with the lands they occupy. Further, Indigenous peoples' experiences with impact assessment and environmental decision-making demonstrate that the state has not sufficiently recognised and integrated Indigenous peoples' authority and their priorities for development. Therefore, impact assessment and decisions about infrastructure projects have allowed for the infringement of Indigenous and Aboriginal rights. They have disregarded the evidence of disparate adverse effects of proposed projects on Indigenous communities and lands, and Indigenous peoples' inherent authority, experience and knowledge about the land and socio-ecological systems.

In the face of those failures, this research concluded that impact assessment could eventually serve as a tool to account for and address those essential aspects of environmental justice for Indigenous peoples only if certain structural pre-conditions are present. First, state-led impact assessment and environmental decision-making must be applied in combination with other tools, such as strategic and regional assessment, land-use and watershed plans, Indigenous-led policies, plans, and programs, and Indigenous laws. Second, the state must not have exclusive control of the design and execution of impact assessment and environmental decision-making when proposed projects may adversely affect Indigenous peoples. Therefore, the opportunity for joint decision-making processes and FPIC are critical in ensuring shared decision-making. And FPIC and joint processes are intrinsic to each other; therefore, they should be applied concomitantly. Finally, economic development must not be the main justification for approval of projects. In traditional Indigenous territories, the review of specific projects must aim at giving priority to community-led development. The implementation of those pre-conditions requires more than law and policy reforms, but a substantial change in the paradigm of environmental decision-making. Still those pre-conditions do not guarantee that environmental decision-making will fulfill environmental justice for Indigenous peoples. Environmental justice is a process of pursuing equity in environmental decision-making, rather than any specific outcomes. EJ also requires open channels of negotiation between Indigenous nations and colonial governments for the review and transformation of legal regimes.

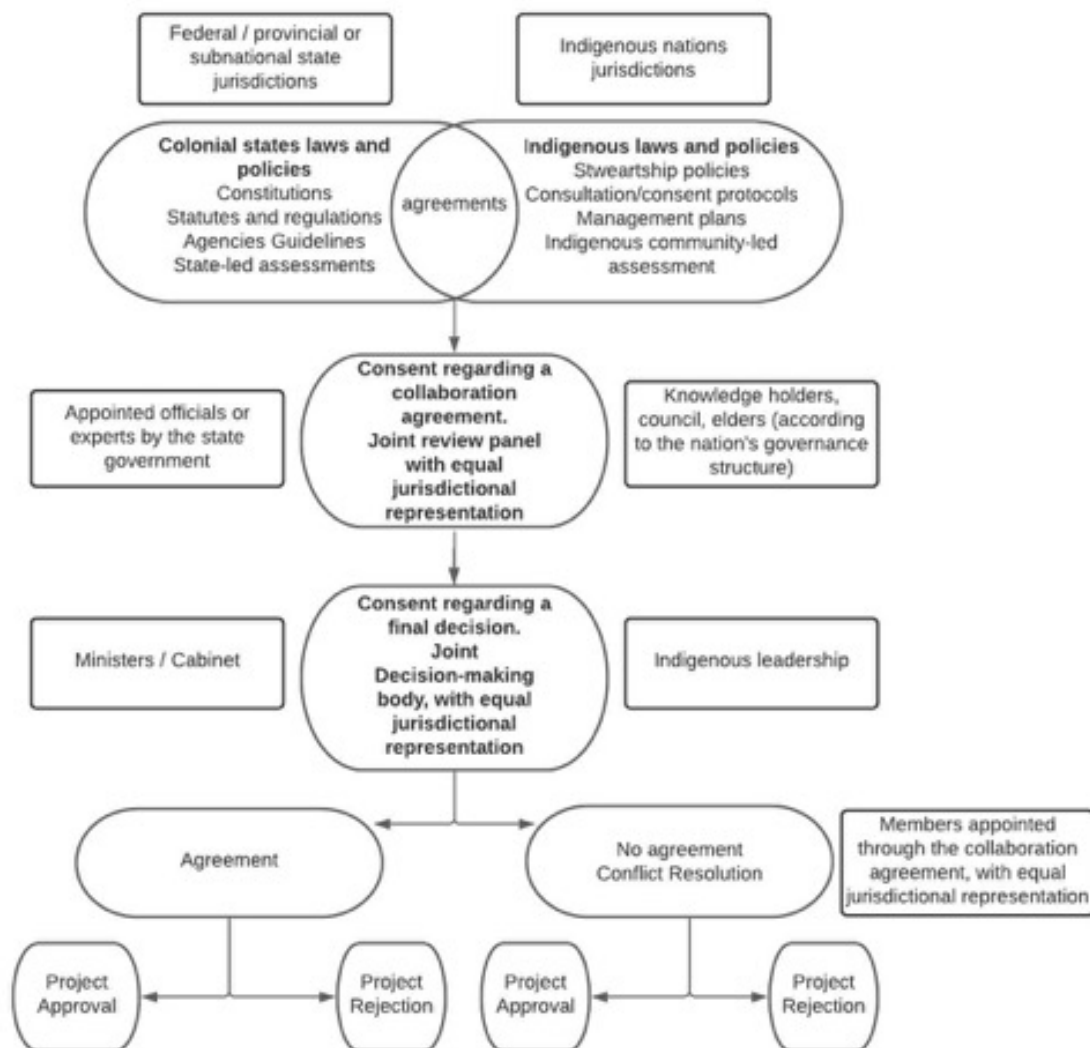


Figure 8: Recommended Joint environmental decision-making process.

Bibliography

LEGISLATION: CANADA

Constitution Act, 1867 (UK), 30 & 31 Victoria, c 3, reprinted in RSC 1985, Appendix II, No 5.

Constitution Act, 1982, being Schedule B to the Canada Act 1982 (UK) 1982, c11.

Canada Environmental Assessment Act, SC 2012, c 19, s 52 [Repealed, 2019, c 28, s 9].

Clean Energy Act, SBC 2010, C-22.

Canada Impact Assessment Act, SC 2019, c 28, s 1.

Fisheries Act, RSC 1985, c F-14.

Regulations Designating Physical Activities, SOR/2012-147 (6 July 2012).

Declaration on the Rights of Indigenous Peoples Act, SBC 2019, c 44.

Environmental Assessment Act, SBC 2018, c 51.

Environmental Assessment Act, SBC 2002, c 43 [Repealed by the Environmental Assessment Act, SBC 2018, c 51, s 81].

Utilities Commission Act, RSBC 1996, C-473.

Water Sustainability Act, SBC 2014, c 15.

Forest & Range Practices Act, SBC 2002, c 69.

BC Reg 370/2002.

Canada, Bill C-15 *An Act respecting the United Nations Declaration on the Rights of Indigenous Peoples*, 2nd session, 43rd Parl, 2020 (first reading on 3 December 2020).

Canada, Bill C-262, *An Act to ensure that the laws of Canada are in harmony with the United Nations Declaration on the Rights of Indigenous Peoples*, 1st session, 42nd Parl, 2018 (third reading on 30 May 2018).

LEGISLATION: BRASIL

República Federativa do Brasil, Brasília, 5 October 1988, *Constitution of the Federative Republic of Brazil* and Constitutional Amendments no. 1/92 through 72/2013 and by

Revision Constitutional Amendments no. 1/94 through 6/94, (2013) Senado Federal (Brazil).

Congresso Nacional, Brasília, 31 August 1981, *Lei da Política Nacional de Meio Ambiente*, Lei n. 6.938, (1981) Planalto (Brazil).

Congresso Nacional, Brasília, 19 December 1973, Lei n. 6001 (*Estatuto do Índio*), (1973) Planalto (Brazil).

Congresso Nacional, Brasília, 30 June 1992, Lei Federal n. 8437, (1992) Planalto (Brazil).

Presidência da República, Brasília, 4 September 1942, Decreto Lei n. 4658 (*Lei de Introdução as Normas do Direito Brasileiro*), (1942) Planalto (Brazil).

Presidência da República, Brasília, 22 April 2015, Decreto n. 8437, (2015) Planalto (Brazil).

Presidência da República, Brasília, 8 January 1996, Decreto n.1775 (1996) Planalto (Brazil).

Presidência da República, Brasília, 5 June 2012, Decreto n. 7747, (2012) Planalto (Brazil).

Presidência da República, Brasília, 5 November 2019, Decreto n. 10088, (2019) Planalto (Brazil).

Senado Federal, Brasília, 29 September 2015, Projeto de Lei n. 654/2015, (2015) Senado Federal (Brazil).

Câmara dos Deputados, Brasília, 6 February 2020, Projeto de Lei n. 191, (2020) Câmara dos Deputados (Brazil).

Câmara dos Deputados, Brasília, 8 June 2004, Projeto de Lei n. 3729/2004 e substitutivos, (2004) Câmara dos Deputados (Brazil).

CONAMA, Brasília, 23 January 1986, Resolução n.01, (1986) MMA (Brazil).

CONAMA, Brasília, 19 December 1997, Resolução n. 237, (1997) MMA (Brazil).

FUNAI, Brasília, 27 March 2015, Instrução Normativa n. 02 (2015) Ministério da Justiça (Brazil).

IBAMA, Brasília, 17 July 2008, Instrução Normativa n. 184, (2008) MMA (Brazil).

Ministério do Meio Ambiente, Brasília, 25 March 2015, Portaria Interministerial n. 60, (2015) MMA (Brazil).

LEGISLATION: UNITED STATES

Executive Order 12898 Federal Actions To Address Environmental Justice in Minority Populations and Low-Income Populations, 59 Fed Reg 7629 (1994).

LEGISLATION: INTERNATIONAL

United Nations Declaration on the Rights of Indigenous People, 13 September 2007, A/RES/61/295.

International Labour Organisation Indigenous and Tribal Peoples Convention 169, 27 June 1989, 1650 UNTS (Entered into force 5 September 1991).

JURISPRUDENCE: CANADA

Burrard Power Co v The King, [1910] 43 SCR 27.

Clyde River (Hamlet) v Petroleum Geo-Services Inc 2017 SCC 40, [2017] 1 SCR 1069.

Delgamuukw v British Columbia, [1997] 3 SCR 1010.

Friends of the Oldman River Society v Canada (Minister of Transport), [1992] 1 SCR 3.

Gitxaala Nation v Canada 2016 FCA 187, [2016] 4 FCR 418.

Haida Nation v British Columbia (Minister of Forests) 2004 SCC 73, [2004] 3 SCR 511.

Mikisew Cree First Nation v Canada (Minister of Canadian Heritage), [2005] 3 SCR 388.

Nunatukavut Community Council Inc v Canada (Attorney General) 2015 FC 981.

Pembina Institute for Appropriate Development v Canada (Attorney General), 2008 FC 302.

Prophet River First Nation v British Columbia (Environment), 2015 BCSC 1682.

Prophet River First Nation v British Columbia (Environment), 2017 BCCA 58.

Prophet River First Nation v Canada (Attorney General), 2015 FC 1030.

Prophet River First Nation v Canada (Attorney General), 2017 FCA 15.

R v Badger, [1996] 1 SCR 771.

R v Sparrow, [1990] 1 SCR 1075.

Taku River Tlingit First Nation v British Columbia (Project Assessment Director) 2004 SCC 74, [2004] 3 SCR 550.

Taku River Tlingit First Nation v Canada (Attorney General) 2016 YKSC 7.

Tsilhqot'in Nation v British Columbia, [2014] 2 SCR 256.

Tsleil-Waututh Nation v Canada (Attorney General) 2018 FCA 153, [2019] 2 FCR 3.

West Moberly First Nations v British Columbia, 2018 BCSC 1835.

Yahey v British Columbia 2015 BCSC 1302.

Yahey v British Columbia 2017 BCSC 899.

JURISPRUDENCE: BRAZIL

Supremo Tribunal Federal, Brasília, Brazil, 16 March 2007, Suspensão de Liminar 125, (2007) STF (Brazil).

Tribunal Regional Federal da 1a Região, Altamira, Pará, 26 May 2017, Ação Civil Pública Ministério Público Federal v Norte Energia, (2017) TRF1 (Brazil).

Tribunal Regional Federal da 1a Região, Belém do Pará, 25 November 2011, Ministério Público Federal v Eletrobrás, (2011) TRF1 (Brazil).

Tribunal Regional Federal da 1a Região, Belém do Pará, 5 February 2007, Ministério Público Federal v IBAMA, (2007) TRF1 (Brazil).

Tribunal Regional Federal da 1a Região, 9a Vara Federal, Belém do Pará, 23 January 2015, Ministério Público Federal v Norte Energia, (2015) TRF1 (Brazil).

Tribunal Regional Federal da 1a Região, Altamira, Pará, 14 February 2015, Ministério Público Federal v União Federal, (2015) TRF1 (Brazil).

Tribunal Regional Federal da 1a Região, Belém do Pará, 16 May 2013, Ministério Público Federal v ANEEL, (2013) TRF1 (Brazil).

JURISPRUDENCE: INTERNATIONAL

Judgement, *Comunidad Grífuna de Punta Piedra y Sus Miembros v Honduras* (2015), Inter-Am Ct HR (Ser C) No 304.

Judgement, *Kaliña and Lokono Peoples v Suriname* (2015), Inter-Am Ct HR (Ser C) No 309.

Judgement, *Kichwa People of Sarayaku v Ecuador* (2012), Inter-Am Ct HR (Ser C) No 245.

Judgement, *Saramaka People v Suriname* (2007), Inter-Am Ct HR (Ser C) No 172.

LEGISLATION: GOVERNMENT DOCUMENTS

BC Environmental Assessment Office, *Site C Environmental Assessment Certificate* (2014).

British Columbia, *Order of the Lieutenant Governor in Council, respecting land in the Agricultural Land Reserve*, by British Columbia, No 148 (Provincial Agricultural Land Commission, 2015).

Canada, Impact Assessment Agency of, *Assessing Cumulative Environmental Effects under the Canadian Environmental Assessment Act, 2012* (2014).

———, *Final Environmental Assessment Guidelines* (2018).

———, *Site C Environmental Assessment Decision Statement* (2014).

Canada, *Treaty No. 8* (Government of Canada; Indigenous and Northern Affairs Canada, 1899).

COHID & IBAMA, Brasília, 10 September 2015, Parecer técnico n.º 02001.003622/2015-08 (2015) MMA (Brazil).

Fundação Nacional do Índio (FUNAI), Brasília, 2 July 2012, Parecer UHE Belo Monte componente indígena 01/CGGAM/2012, (2012) FUNAI (Brazil).

Fundação Nacional do Índio (FUNAI), Brasília, 30 September 2009, Parecer Técnico 21 (2009) FUNAI (Brazil).

IBAMA, Brasília, 01 February 2010, Licença Prévia 342 (2010) MMA (Brazil).

IBAMA, Brasília, 1 June 2011, Licença de Instalação Belo Monte 795 (2011) MMA (Brazil).

IBAMA, Brasília, 24 November 2015, Licença de Operação Belo Monte n. 1317 (2015) MMA (Brazil).

IBAMA, Brasília, 23 November 2009, Parecer Técnico 114 (2009) MMA (Brazil).

IBAMA, Brasília, 31 May 2011, Parecer Técnico 52 (2011) MMA (Brazil).

IBAMA, Termo de Referência para Estudo de Impacto Ambiental e Respectivo Relatório de Impacto Ambiental – EIA/RIMA. Aproveitamento Hidrelétrico Belo Monte (2007).

Minister of Environment, British Columbia & Minister of Environment, Canada, *Agreement to Conduct a Cooperative Environmental Assessment, Including the Establishment of a Joint Review Panel, of the Site C Clean Energy Project* (2012).

Minister of the Environment Canada & Minister of the Environment British Columbia, *Amended Agreement to Conduct a Cooperative Environmental Assessment Including the Establishment of a Joint Review Panel, of the Site C Clean Energy Project* (Impact Assessment Agency, 2012).

Ministério das Relações Exteriores do Governo do Brasil, *Nota 142: Solicitação da Comissão Interamericana de Direitos Humanos (CIDH) da OEA* (2011).

Maa-nulth First Nations & British Columbia, *Maa-nulth First Nations Final Agreement* (2011).

Parks Canada, *Wood Buffalo National Park World Heritage Site Action Plan* (2019).

Tla'amin Nation & British Columbia, *Tla'amin Final Agreement* (2016).

SECONDARY MATERIALS: MONOGRAPHS

Agyeman, Julian, *Introducing Just Sustainabilities: Policy, Planning, and Practice* (London: Zed Books, 2013).

———, ed, *Speaking for ourselves: environmental justice in Canada* (Vancouver: UBC Press, 2009).

Almeida, Maria Regina Celestino de, *Os índios na história do Brasil* (Rio de Janeiro: Editora FGV, 2010).

Barbieri, Samia Roges Jordy, *Os Direitos Constitucionais dos Índios e o Direito à Diferença, Face ao Princípio da Dignidade da Pessoa Humana* (Coimbra: Almedina, 2008).

Bell, Karen, *Achieving Environmental Justice. A Cross-National Analysis* (Bristol, UK: Policy Press, 2014).

Black, C F & Cf Black, *The Land Is the Source of the Law: A Dialogic Encounter with Indigenous Jurisprudence* (London, UK: Taylor & Francis Group, 2010).

Borrows, John et al, eds, *Braiding legal orders: implementing the United Nations Declaration on the Rights of Indigenous Peoples* (Waterloo, ON, Canada: Centre for International Governance Innovation, 2019).

———, *Canada's Indigenous constitution* (Toronto: University of Toronto Press, 2010).

———, *Freedom and indigenous constitutionalism* (Toronto ; Buffalo: University of Toronto Press, 2016).

Borrows, John & Leonard Ian Rotman, *Aboriginal legal issues: cases, materials & commentary*, fifth edition ed (Toronto, Ontario: LexisNexis Canada, 2018).

Bowen, William M, *Environmental Justice Through Research-Based Decision-Making* (London, UK: Taylor & Francis Group, 2001).

Bowes, Gordon, *The Peace River Chronicles* (Vancouver, BC: Prescott Publishing Company, 1963).

Brody, Hugh, *Maps and Dreams. Indians and the British Columbia Frontier* (Vancouver, BC: Douglas & McIntyre, 1981).

Carmin, JoAnn & Julian Agyeman, eds, *Environmental inequalities beyond borders: local perspectives on global injustices*, Urban and industrial environments (Cambridge, MA: MIT Press, 2011).

Carruthers, David V et al, *Environmental Justice in Latin America: Problems, Promise, and Practice* (Cambridge, US: MIT Press, 2008).

Clough, Peter & Cathy Nutbrown, *A student's guide to methodology*, 3rd ed ed (London: SAGE, 2012).

Coulthard, Glen Sean, *Red skin, white masks: rejecting the colonial politics of recognition*, Book, Whole (Minneapolis, MN: University of Minnesota Press, 2014).

Cox, Sarah, *Breaching the Peace. The Site C Dam and a Valley's Stand against Big Hydro* (Vancouver ; Toronto: On Point Press, 2018).

Craik, Neil, *The International Law of Environmental Impact Assessment: Process, Substance and Integration* (Cambridge: Cambridge University Press, 2008).

Devine Guzmán, Tracy, *Native and National in Brazil. Indigeneity After Independence* (Chapel Hill: The University of North Carolina Press, 2013).

Dietz, Thomas & Paul Stern, *Public Participation in Environmental Assessment and Decision Making* (Washington, DC: The National Academies Press, 2008).

Doelle, Meinhard & Chris Tollefson, *Environmental Law. Cases and Materials*, 2nd ed (Toronto: Carswell, 2013).

Escobar, Arturo, *Encountering development: the making and unmaking of the Third World*, 2nd ed (Princeton, New Jersey: Princeton University Press, 1995).

Faber, Daniel, *Capitalizing on environmental injustice: the polluter-industrial complex in the age of globalization*, Nature's meaning (Lanham: Rowman & Littlefield Publishers, 2008).

Faber, Daniel J, ed, *The Struggle for ecological democracy: environmental justice movements in the United States*, Democracy and ecology (New York: Guilford Press, 1998).

Fearnside, Philip, *Hidrelétricas na Amazônia. Impactos Ambientais e Sociais na Tomada de Decisões sobre Grandes Obras. Vol 3.* (Manaus, Brazil: Instituto Nacional de Pesquisas da Amazônia, 2019).

Galeano, Eduardo, *Open veins of Latin America: five centuries of the pillage of a continent* (New York: Monthly Review Press, 1973).

Geertz, Clifford, *The interpretation of cultures: selected essays* (New York: Basic Books, 1973).

George, Alexander L & Andrew Bennett, *Case Studies and Theory Development in the Social Sciences* (MIT Press, 2005).

Gibson, Robert B, *Sustainability Assessment* (New York: Routledge, 2005).

Glasson, John, Riki Therivel & Andrew Chadwick, *Introduction to environmental impact assessment*, 3rd ed ed, The natural and built environment series (London ; New York: Routledge, 2005).

Gómez-Barris, Macarena, *The Extractive Zone. Social Ecologies and Decolonial Perspectives* (London: Duke University Press, 2017).

Hanna, Kevin S, *Environmental Impact Assessment: Practice and Participation*, 2d ed (Oxford: Oxford University Press, 2009).

Hansen, John George, ed, *Exploring indigenous social justice* (Vernon, BC Canada: JCharlton Publishing Ltd, 2014).

Hogl, Karl et al, *Environmental Governance: The Challenge of Legitimacy and Effectiveness* (Cheltenham, UK: Edward Elgar Publishing, 2012).

Holder, Jane, *Environmental Assessment. The Regulation of Decision-Making* (Oxford: Oxford University Press, 2006).

J McGuire, Chad, *Environmental Decision-Making in Context: A Toolbox* (Boca Raton, FL: CRC Press, 2012).

Jarratt-Snider, Karen & Marianne Nielsen, eds, *Indigenous Environmental Justice* (Tucson, Arizona: University of Arizona Press, 2020).

Johnson, Jay T & Soren C Larsen, eds, *A Deeper Sense of Place. Stories and Journeys of Indigenous-Academic Collaboration* (Corvallis: Oregon State University Press, 2013).

Khagram, Sanjeev, *Dams and Development: Transnational Struggles for Water and Power* (Cornell University Press, 2004).

King, Thomas, *The Inconvenient Indian* (Ottawa: Anchor Canada, 2013).

Lutz Newton, Julianne, *Aldo Leopold's Odyssey* (Washington: Island Press Shearwater Books, 2006).

Machado, Paulo Affonso Leme, *Direito Ambiental Brasileiro*, 18th ed (São Paulo: Malheiros, 2010).

- Macklem, Patrick & Douglas Sanderson, *From Recognition to Reconciliation: Essays on the Constitutional Entrenchment of Aboriginal and Treaty Rights* (University of Toronto Press, 2016).
- Marés de Souza Filho, Carlos Frederico et al, *Protocolos de Consulta Prévia e Direito à Livre Determinação*, Verena Glass, ed (São Paulo: Fundação Rosa Luxemburgo: DEPEDIS, 2019).
- Martinez-Alier, Joan, *Environmentalism of the Poor. A Study of Ecological Conflicts and Valuation* (Cheltenham, UK: Edward Elgar Publishing, 2002).
- Mathews, John A, *Encyclopedia of Environmental Change* (New York: Sage, 2014).
- Mayhew, Susan, *Oxford Dictionary of Geography* (Oxford: Oxford University Press, 2015).
- McGurty, Eileen Maura, *Transforming environmentalism: Warren county, PCBS, and the origins of environmental justice* (New Brunswick, NJ ; London: Rutgers University Press, 2007).
- Milaré, Édís, *Direito do Ambiente. A Gestão Ambiental em Foco* (São Paulo: Revista dos Tribunais, 2007).
- Nichols, Joshua, *Reconciliation and the foundations of aboriginal law in Canada* (University of Victoria, 2017) [unpublished].
- Parmar, Pooja, *Indigeneity and legal pluralism in India: claims, histories, meanings*, Cambridge studies in law and society (New York, NY: Cambridge University Press, 2015).
- Pasternak, Shiri, *Grounded authority: the Algonquins of Barriere Lake against the state* (Minneapolis: University of Minnesota Press, 2017).
- Peters, Ina, *Cohesion and Fragmentation in Social Movements. How Frames and Identities Shape the Belo Monte Conflict* (Hannover, Germany: Springer VS, 2018).
- Ramazanoğlu, Caroline & Janet Holland, *Feminist Methodologies Challenges and Choices* (London, UK: Sage, 2002).
- Ribeiro, Darcy, *Os Índios e a Civilização. A integração das populações indígenas no Brasil moderno.*, 7th ed (São Paulo: Global Editora, 2017).
- Rosenbaum, Walter A, *Environmental politics and policy*, 8th ed (Washington, D.C: CQ Press, 2011).
- Sachs, Wolfgang, ed, *The Development dictionary: a guide to knowledge as power* (London ; Atlantic Highlands, N.J: Zed Books, 1992).

Said, Edward, *Orientalism* (New York: Vintage Books, 1979).

Schlosberg, David, *Defining Environmental Justice* (Oxford: Oxford University Press, 2007).

———, *Environmental Justice and the New Pluralism: The Challenge of Difference for Environmentalism* (Oxford, UNITED KINGDOM: Oxford University Press, Incorporated, 1999).

Scott, James C, *Seeing Like a State: How Certain Schemes to Improve the Human Condition Have Failed* (New Haven: Yale University Press, 1999).

Scudder, Thayer, *The Future of Large Dams. Dealing with Social, Environmental and Institutional Costs* (London: Earthscan, 2005).

Sevá Filho (Org), Oswaldo, *Tenotã-Mô: Alertas sobre as Consequências dos Projetos Hidrelétricos no Rio Xingu*, 1st ed (São Paulo: International Rivers Network, 2005).

Sirvinskas, Luís Paulo, *Tutela Constitucional do Meio Ambiente* (São Paulo: Saraiva, 2010).

Smith, Linda Tihiwai, *Decolonizing Methodologies* (London: Zed Books, 2012).

Sousa Santos, Boaventura de, *Epistemologies of the South: Justice Against Epistemicide*, 2nd ed (New York: Routledge, 2016).

———, *The End of the Cognitive Empire. The Coming of Age of Epistemologies of the South* (London: Duke University Press, 2018).

Squeff, Tatiana de Almeida Freitas Rodrigues Cardoso, *Estado Plurinacional. A Proteção do Indígena em Torno da Construção da Hidrelétrica de Belo Monte* (Curitiba: Juruá, 2016).

Stein, Rachel, ed, *New perspectives on environmental justice: gender, sexuality, and activism* (New Brunswick, N.J: Rutgers University Press, 2004).

Turner, Dale, *This Is Not a Peace Pipe. Towards a Critical Indigenous Philosophy* (Toronto: University of Toronto Press, 2006).

Turner, Nancy, *Ancient Pathways, Ancestral Knowledge: Ethnobotany and Ecological Wisdom of Indigenous Peoples of Northwestern North America* (Montreal: McGill-Queens University Press, 2014).

Turner, Nancy J, *The Earth's Blanket: Traditional Teachings for Sustainable Living* (Seattle: University of Washington Press, 2005).

Valverde, Mariana, *Law's Dream of a Common Knowledge* (Princeton University Press, 2009).

Villares, Luiz Fernando, *Direito e Povos Indígenas* (Curitiba: Juruá, 2013).

Waldram, James B, *As Long as the Rivers Run: Hydroelectric Development and Native Communities in Western Canada* (Winnipeg: University of Manitoba Press, 1988).

Westra, Laura, *Environmental justice and the rights of indigenous peoples: international and domestic legal perspectives* (London ; Sterling, VA: Earthscan, 2008).

Wiebe, Sarah Marie, *Everyday exposure: indigenous mobilization and environmental justice in Canada's chemical valley* (Vancouver: UBC Press, 2016).

Zimring, Carl A, *Clean and white: a history of environmental racism in the United States* (New York: New York University Press, 2015).

SECONDARY MATERIALS: BOOK SECTIONS

Adams, Cristina et al, “A situação ambiental no trecho do Rio Xingu afetado pela UHE Belo Monte a montante da barragem Pimental” in Sônia Barbosa Magalhães & Manuela Carneiro da Cunha, eds, *A Expulsão de Ribeirinhos em Belo Monte Relatório da SBPC* (Altamira, PA: Sociedade Brasileira para Progresso da Ciência, 2017) 129–150.

Albro, Robert, “Bolivia’s indigenous foreign policy: Vivir bien and global climate change ethics” in Evan Berry & Robert Albro, eds, *Church, Cosmovision and the Environment* (New York: Routledge, 2018) 99–122.

Bano, Samia, “Standpoint, Difference and Feminist research” in Reza Banakar & Max Travers, eds, *Theory and Method in Socio-legal Research* (Oxford: Hart Publishing, 2005) 91–111.

Beltrão, Jane Felipe, Assis da Costa Oliveira & Felício Pontes Jr, “Significados do direito à consulta: povos indígenas versus UHe Belo Monte” in João Pacheco de Oliveira & Clarice Cohn, eds, *Belo Monte e a Questão Indígena* (Brasília: ABA Publicações, 2014) 70–100.

Benzoni, Francisco, “Utilitarianism” in Willis Jenkins & Whitney Bauman, eds, *Berkshire Encyclopedia of Sustainability Vol 1: The Spirit of Sustainability* (Berkshire: Berkshire Publishing Group, 2010) 398.

Boyce, James, Peter Rosset & Elizabeth A Stanton, “Land Reform and Sustainable Development” in James K Boyce, Sunita Narain & Elizabeth A Stanton, eds, *Reclaiming Nature: Environmental Justice and Ecological Restoration* (London, UK: Anthem Press, 2007) 127–150.

Bryner, Gary C, “Assessing Claims of Environmental Justice. Conceptual Frameworks” in Kathryn M Mutz, Gary C Bryner & Douglas S Kenney, eds, *Justice and Natural Resources Concepts, Strategies, and Application* (Washington: Island Press, 2002) 31–55.

Casas, C Ignacio de, “The Corporate Responsibility to Respect Consultation Rights in the Americas: How the Inter-American System Can Better Promote Free, Prior, and Informed Consent” in Isabel Feichtner, Markus Krajewski & Ricarda Roesch, eds, *Human Rights in the Extractive Industries: Transparency, Participation, Resistance* Interdisciplinary Studies in Human Rights (New York: Springer International Publishing, 2019) 247–279.

Cohn, Clarice, “O Fim do Mundo como o Conhecemos: Os Xikrin do Bacajá e a Barragem Belo Monte” in Clarice Cohn & João Pacheco de Oliveira, eds, *Belo Monte e a Questão Indígena* (Brasília: ABA Publicações, 2014) 253–276.

Casey, T Timothy, “Not In our Lands: A Canadian Comparative Study of Indigenous Resistance Strategies to Natural Resource Development in British Columbia and the Arctic” in Karen Jarratt-Snider & Marianne Nielsen, eds, *Indigenous Environmental Justice* (Tucson, Arizona: University of Arizona Press, 2020) 160–178.

Coutin, Susan Bibler, “Reconceptualizing Research: Ethnographic Fieldwork and Immigration Politics in Southern California” in June Starr & Mark Goodale, eds, *Practicing Ethnography in Law: New Dialogues, Enduring Methods* (New York: Palgrave Macmillan US, 2002) 108–127.

Craft, Aimée, “Giving and receiving life from Anishinaabe nibi inaakonigewin (our water law) research” in Jocelyn Thorpe, Stephanie Rutherford & L Anders Sandberg, eds, *Methodological Challenges in Nature-Culture and Environmental History Research*, (London: Routledge, 2016) 105–119.

Dantas, Fernando Antônio de Carvalho, “Entre a nação imaginada e o estado plurinacional: o reconhecimento dos direitos indígenas no novo constitucionalismo latino-americano” in Leonardo Avritzer et al, eds, *O constitucionalismo democrático latino-americano em debate Soberania, separação de poderes e sistema de direitos* (Belo Horizonte: Autêntica, 2016) 213–230.

Doyle, Cathal M, “Indigenous Peoples’ experiences of resistance, participation, and autonomy: Consultation and free, prior and informed consent in Peru” in Claire Wright & Alexandra Tomaselli, eds, *The Prior Consultation of Indigenous Peoples in Latin America* (London: Routledge, 2019) 58–73.

Duprat, Deborah, “O Marco Temporal de 5 de Outubro de 1988: TI Limão Verde” in Manuela Carneiro da Cunha & Samuel Barbosa, eds, *Direitos dos Povos Indígenas em Disputa* (São Paulo: UNESP, 2018) 38–69.

Galloway, John D, “A Mining Engineer Report” in *Peace River Chronicles* (Vancouver, BC: Prescott Publishing Company, 1963) 389 [back cover].

Getches, David H & David N Pellow, “Beyond ‘Traditional’ Environmental Justice” in *Justice and Natural Resource Concepts, Strategies, and Applications* (Washington: Island Press, 2002) 3–30.

Harding, Andrew, “Comparative Law and Legal Transplantation in Southeast Asia: Making Sense of the ‘Nomic Din’” in David Nelken & Johannes Feest, eds, *Adapting Legal Cultures* (Oxford: Hart Publishing, 2001) 198–222.

Henderson, James (Sa’Ke’j’) Youngblood, “The Art of Braiding Indigenous People’s Inherent Human Rights into the Law of Nation States” in John Borrows, Oonagh Fitzgerald, Risa Schwartz, eds., *Braiding Legal Orders: Implementing the United Nations Declaration on the Rights of Indigenous Peoples* (Waterloo, ON: Centre for International Governance Innovation, 2019) 29–35.

Herculano, Selene, “Building Environmental Justice in Brazil: A Preliminary Discussion of Environmental Racism” in Jan Marie Fritz, ed, *International Clinical Sociology* (New York, NY: Springer, 2009) 224–268.

Hicks, Barbara, “Going Beyond the State to Strengthen the Rule of Law: Local Activists, Transnational Networks, and Gold Mining in Bulgaria” in Carmen Joann & Julian Agyeman, eds, *Environmental Inequalities Beyond Borders Local Perspectives on Global Injustices* (Cambridge, US: MIT Press, 2011) 213–245.

Holm, Wendy, “Rape of the Commons: The Impact of Site C on Farmland and Food Security” in Wendy Holm, ed, *Damming the Peace* (Toronto: Lorimer, 2018) 95–116.

Jessop, Bob, “Two. States, state power, and state theory” in Jacques Bidet & Stathis Kouvelakis, eds, *Critical Companion to Contemporary Marxism Historical Materialism* (Leiden: Brill, 2008) 413–429.

Johnson, Glen S, “Environmental Justice: A Brief History and Overview” in Filomina Chioma Steady, ed, *Environmental Justice in the New Millennium Global Perspectives on Race Ethnicity and Human Rights* (New York, NY: Palgrave Macmillan US, 2009) 17–45.

Keenan, Karyn, José De Echave & Ken Traynor, “Mining Rights and Community Rights: Poverty Amidst Wealth” in James Boyce, Sunita Narain & Elizabeth A Stanton, eds, *Reclaiming Nature Environmental Justice and Ecological Restoration* (London UK: Anthem Press, 2007) 181–201.

Lima, Ismar Borges de et al, “Hydroelectric Plants Construction, Rainforest Landscape Change, and Impacts on Indigenous, and Traditional Groups in Amazonia: From Balbina, Tucuruí to Belo Monte Contexts” in Walter Leal Filho, Victor T King & Ismar Borges de Lima, eds, *Indigenous Amazonia, Regional Development and Territorial Dynamics: Contentious Issues The Latin American Studies Book Series* (Cham: Springer International Publishing, 2020) 397–419.

Macklem, Patrick, “Indigenous Peoples and the Ethos of Legal Pluralism in Canada” in Patrick Macklem & Douglas Sanderson, eds, *From recognition to Reconciliation* (Toronto: University of Toronto Press, 2016) 17–34.

- Magallanes, Catherine Iorns, “Native American Values and Laws of Exclusion” in Keith H Hirokawa, ed, *Environmental Law and Contrasting Ideas of Nature A Constructivist Approach* (New York, NY: Cambridge University Press, 2014) 200–228.
- McGregor, Deborah, “Honoring Our Relations: An Anishinaabe Perspective on Environmental Justice” in Julian Agyeman et al, eds, *Speaking for Ourselves, Environmental Justice in Canada* (Vancouver: UBC Press, 2009) 27–41.
- Merino, Roger, “Law and Politics of Indigenous Self-Determination: The Meaning of Right to Prior Consultation” in Irene Watson, ed, *Indigenous Peoples As Subjects of International Law* (New York: Routledge, 2018) 120–140.
- Montoya Hammersley, Mia, “The Water-Energy Nexus and Environmental Justice: The Missing Link Between Water Rights and Energy Production on Tribal Lands” in Karen Jarratt-Snider & Marianne Nielsen, eds, *Indigenous Environmental Justice* (Tucson, Arizona: University of Arizona Press, 2020) 136–159.
- Newig, Jens, “More Natural Resource Management Through Participatory Governance. Taking Stock of the Conceptual and Empirical Literature – and Moving Forward” in Karl Hogl, ed, *Environmental Governance The Challenges of Legitimacy and Effectiveness* (Cheltenham, UK: Edward Elgar Publishing, 2012) 46–67.
- Okamoto, Tami & Cathal Doyle, “The Wampis Nation’s FPIC Protocol – A Statute Based Tool to Defend an Integral Territory” in Cathal Doyle, Biviany Rojas Garzon, Helen Tugendhat, Viviane Weitzner, *Free prior informed consent protocols as instruments of autonomy: laying foundations for rights based engagement* (Köln: Infoe, ENIP, 2019) 65–82.
- Perreault, Tom, “Popular Protest and Unpopular Policies: State Restructuring, Resource Conflict, and Social Justice in Bolivia” in David V Carruthers, ed, *Environmental Justice in Latin America: Problems, Promise, and Practice* (Cambridge, US: MIT Press, 2008) 239–262.
- Pregernig, Michael & Michael Böcher, “Normative and Analytical Perspectives on the Role of Science and Expertise in Environmental Governance” in Karl Hogl et al, eds, *Environmental Governance The Challenges of Legitimacy and Effectiveness* (Cheltenham, UK: Edward Elgar Publishing, 2012) 199–219.
- Pushchak, Ron & Ann Marie Farrugia-Uhalde, “Social Impact Assessment and High-Level Radioactive Waste Disposal: The Canadian Concept and Aboriginal Response” in Kevin S Hanna, ed, *Environmental Impact Assessment: Practice and Participation*, 2d ed (Oxford: Oxford University Press, 2009) 131–157.
- Scudder, Thayer, “The Good Megadam: Does It Exist, All Things Considered?” in Bent Flyvbjerg, ed, *The Oxford Handbook of Megaproject Management* (Oxford: Oxford University Press, 2017) 428–451.

Seck, Sara L, “Transnational Corporations and Extractive Industries” in Shawkat Alam et al, eds, *International Environmental Law and the Global South* (London: Cambridge University Press, 2015) 380–398.

Silva, José Afonso da, “Parecer” in Samuel Barbosa & Manuela Carneiro da Cunha, eds, *Direitos dos Povos Indígenas em Disputa no STF* (São Paulo: UNESP, 2018) 17–37.

Suagee, Dean B, “NEPA in Indian Country. Compliance Requirement to Decision-Making Tool” in Kathryn M Mutz, Gary C Bryner & Douglas S Kenney, eds, *Justice and Natural Resources Concepts, Strategies, and Applications* (Washington: Island Press, 2002) 225–251.

Tigre, Maria Antonia & Sarah C Slinger, “A Voice in the Development of Amazonia: The Constitutional Rights to Participation of Indigenous Peoples” in Walter Leal Filho, Victor T King & Ismar Borges de Lima, eds, *Indigenous Amazonia, Regional Development and Territorial Dynamics: Contentious Issues* The Latin American Studies Book Series (Cham: Springer International Publishing, 2020) 7–37.

Vandana, Shiva, “Resources” in Wolfgang Sachs, ed., *The Development Dictionary* (London ; New York: Zed Books Ltd, 1993) 206–218.

Watson, Irene, “First Nations, Indigenous Peoples: Our Laws Have Always Been Here” in Irene Watson, ed, *Indigenous Peoples As Subjects of International Law* (New York: Routledge, 2018) 96–119.

SECONDARY MATERIALS: ARTICLES

Abers, Rebeca Neaera, Marilia Silva de Oliveira & Ana Karine Pereira, “Inclusive Development and the Assymetric State: Big Projects and Local Communities in the Brazilian Amazon” (2016) 53:6 *Journal of development studies* 1–16.

Aguilar-Støen, Mariel & Cecilie Hirsch, “Environmental Impact Assessments, local power and self-determination: The case of mining and hydropower development in Guatemala” (2015) 2:3 *The Extractive Industries and Society* 472–479.

Agyeman, J, “Constructing Environmental (in)Justice: Transatlantic Tales” (2002) 11:3 *Environmental Politics* 31–53.

Agyeman, Julian, “Global environmental justice or Le droit au monde?” (2014) 54 *Geoforum* 236–238.

Agyeman, Julian & Bob Evans, “‘Just Sustainability’: The Emerging Discourse of Environmental Justice in Britain?” (2004) 170:2 *The Geographical Journal* 155–164.

Aiken, S Robert & Colin H Leigh, “Dams and Indigenous Peoples in Malaysia: Development, Displacement and Resettlement” (2015) 97:1 *Geografiska Annaler: Series B, Human Geography* 69–93.

- Allen, Elizabeth, "Brazil: Indians and the New Constitution" (1989) 11:4 *Third World Quarterly* 148–165.
- Arocena, Felipe, "Multiculturalism in Brazil, Bolivia and Peru" (2008) 49:4 *Race & Class* 1–21.
- Arrifano, Gabriela P F et al, "Large-scale projects in the amazon and human exposure to mercury: The case-study of the Tucuruí Dam" (2018) 147 *Ecotoxicology and Environmental Safety* 299–305.
- Atapattu, Sumudu, "Extractive Industries and Inequality: Intersections of Environmental Law, Human Rights, and Environmental Justice" (2018) 50:2 *Ariz St LJ* 431–454.
- Atkins, Ed, "Disputing the 'National Interest': The Depoliticization and Repoliticization of the Belo Monte Dam, Brazil" (2019) 11 *Water* 20.
- Baker, Shalanda, "Mexican energy reform, climate change, and energy justice in indigenous communities" (2016) 56:2 *Natural Resources Journal* 359–390.
- Bakker, Karen & Richard Hendriks, "Contested Knowledges in Hydroelectric Project Assessment: The Case of Canada's Site C Project" (2019) 11:3 *Water* 406.
- Beck, Marcus, Andrea Claasen & Peter Hundt, "Environmental and livelihood impacts of dams: common lessons across development gradients that challenge sustainability" (2012) 10:1 *Int J River Basin Management* 73–92.
- Behn, Caleb & Karen Bakker, "Rendering Technical, Rendering Sacred: The Politics of Hydroelectric Development on British Columbia's Saaghii Naachii/Peace River" (2019) 19:3 *Global Environmental Politics* 98–119.
- Berkes, Fikret, "Environmental Governance for the Anthropocene? Social-Ecological Systems, Resilience, and Collaborative Learning" (2017) 9:7 *Sustainability* 1232.
- Bickerstaff, Karen & Julian Agyeman, "Assembling Justice Spaces: The Scalar Politics of Environmental Justice in North-east England" (2009) 41:4 *Antipode* 781–806.
- Bingham, Alexa, "Discourse of the Dammed: A study of the impacts of sustainable development discourse on indigenous peoples in the Brazilian Amazon in the context of the proposed Belo Monte hydroelectric dam" (2010) 4 *Polis Journal* 1–47.
- Biswas, Asit K, "Impacts of Large Dams: Issues, Opportunities and Constraints" (2012) *Impacts of Large Dams: A Global Assessment* 1–18.
- Boelens, Rutgerd, Esha Shah & Bert Bruins, "Contested Knowledges: Large Dams and Mega-Hydraulic Development" (2019) 11:3 *Water* 416.

Booth, A & N W Skelton, “We are fighting for ourselves’ - first nations’ evaluation of British Columbia and Canadian environmental assessment processes” (2011) 13:3 *Journal of environmental assessment policy and management* 367–404.

Booth, Annie L, “Northern Environmental Justice: A Case Study of Place, Indigenous Peoples, and Industrial Development in Northeastern British Columbia, Canada” (2017) 1:1 *Case Studies in the Environment* 1–19.

Booth, Annie L & Norm W Skelton, “‘You spoil everything!’ Indigenous peoples and the consequences of industrial development in British Columbia” (2011) 13:4 *Environ Dev Sustain* 685–702.

Borrows, John, “Living between Water and Rocks: First Nations, Environmental Planning and Democracy” (1997) 47:4 *The University of Toronto Law Journal* 417–468.

Borrows, Lindsay, “Dabaadendiziwin: Practices of Humility in a Multi-Juridical Legal Landscape” (2016) 1 *Windsor YB Access Just* 149–166.

Bragagnolo, Chiara et al, “Streamlining or sidestepping? Political pressure to revise environmental licensing and EIA in Brazil” (2017) 65 *Environmental Impact Assessment Review* 86–90.

Bratman, Eve, “Passive revolution in the green economy: activism and the Belo Monte dam” (2015) 15:1 *Int Environ Agreements* 61–77.

Bratman, Eve & Cristiane Bená Dias, “Development blind spots and environmental impact assessment: Tensions between policy, law and practice in Brazil’s Xingu river basin” (2018) 70 *Environmental Impact Assessment Review* 1–10.

Bratman, Eve Z, “Contradictions of Green Development: Human Rights and Environmental Norms in Light of Belo Monte Dam Activism” (2014) 46:2 *Journal of Latin American Studies* 261–289.

Brilman, Marina, “Consenting to Dispossession: The Problematic Heritage and Complex Future of Consultation and Consent of Indigenous Peoples” (2017) 49 *Colum Hum Rts L Rev* 1–72.

Buizer, Marleen, Bas Arts & Kasper Kok, “Governance, Scale and the Environment: The Importance of Recognizing Knowledge Claims in Transdisciplinary Arenas” (2011) 16:1 *Ecology and Society* 21.

Bullard, Robert D et al, “Toxic Wastes and Race at Twenty: why race still matters after all of these years” (2008) 38:2 *Environmental Law* 371–411.

Bullard, Robert D & Glenn S Johnson, “Environmentalism and Public Policy: Environmental Justice: Grassroots Activism and Its Impact on Public Policy Decision Making” (2000) 56:3 *Journal of Social Issues* 555–578.

Bullard, Robert D & Beverly Wright, “Disastrous response to natural and man-made disasters: an environmental justice analysis twenty-five years after Warren County” (2008) 26:2 *UCLA Journal of Environmental Law & Policy* 217-253.

Bullen, Emma, “Legislative Limits on Environmental Decision-Making: The Application of the Administrative Law Doctrines of Jurisdictional Fact and Ultra Vires” (2006) 23:4 *Environmental and Planning Law Journal* 265–279.

Cameron, Emilie & Tyler Levitan, “Impact and Benefit Agreements and the Neoliberalization of Resource Governance and Indigenous-State Relations in Northern Canada” (2014) 93:1 *Studies in Political Economy* 25–52.

Cantzler, Julia Miller & Megan Huynh, “Native American Environmental Justice as Decolonization” (2016) 60:2 *American Behavioral Scientist* 203–223.

Carneiro da Cunha, Manuela et al, “Indigenous peoples boxed in by Brazil’s political crisis” (2017) 7:2 *HAU: Journal of Ethnographic Theory* 403–426.

Carvalho, Dayane Nayara et al, “Critérios usados na definição de áreas de influências, impactos e programas ambientais em estudos de impacto ambiental de usinas hidrelétricas brasileiras” (2018) 37:3 *UNESP, Geociências* 639–653.

Case, David W, “The Role of Information in Environmental Justice American Bar Association Section of Environment, Energy, and Resources Symposium” (2011) 81:4 *Miss LJ* 701–746.

Cashmore, Matthew & Anna Axelsson, “The mediation of environmental assessment’s influence: What role for power?” (2013) 39 *Environmental Impact Assessment Review (Power and Impact Assessment)* 5–12.

Castro-Diaz, Laura, Maria Claudia Lopez & Emilio Moran, “Gender-Differentiated Impacts of the Belo Monte Hydroelectric Dam on Downstream Fishers in the Brazilian Amazon” (2018) 46:3 *Hum Ecol* 411–422.

Chen, Chung-Lin, “Institutional Roles of Political Processes, Expert Governance, and Judicial Review in Environmental Impact Assessment: A Theoretical Framework and a Case Study of Taiwan” (2013) 54:1 *Natural Resources Journal* 41–79.

Chitewere, Tendai, “Equity in Sustainable Communities: Exploring Tools for Environmental Justice and Political Ecology Symposium on as if Equity Mattered in Natural Resources” (2010) 50:2 *Nat Resources J* 315–340.

Christie, Gordon, “Indigenous Authority, Canadian Law, and Pipeline Proposals” (2013) 25 *Journal of Environmental Law and Practice* 189–215.

Cockayne, James, “More Than Sorry: Constructing a Legal Architecture for Practical Reconciliation” (2001) 23 *Sydney Law Review* 577–596.

Cohn, Clarice, “Belo Monte e processos de licenciamento ambiental: As percepções e as atuações dos Xikrin e dos seus antropólogos” (2010) 2:2 *Revista de Antropologia Social dos Alunos do PPGAS-UFSCar* 224–251.

Collins, Damian & Robin Kearns, “Place attachment and community activism at the coast: The case of Ngunguru, Northland” (2013) 69:1 *N Z Geog* 39–51.

Connelly, Stephen & Tim Richardson, “Value-driven SEA: time for an environmental justice perspective?” (2005) 25:4 *Environmental Impact Assessment Review* 391–409.

Cooke, Fadzilah Majid et al, “The Limits of Social Protection: The Case of Hydropower Dams and Indigenous Peoples’ Land” (2017) 4:3 *Asia & the Pacific Policy Studies* 437–450.

Costa, Alda Cristina, “Vozes institucionais e os discursos de dominação: análise dos grandes projetos hidrelétricos na Amazônia1/ Institutional voices and discourses of domination: analysis of hydroelectric dam projects in the brazilian amazon” (2017) 24:2 *Revista FAMECOS* 1–22.

Cover, Robert, “Nomos and Narrative” (1983) 97:1 *Harvard Law Review* 4–65.

Coy, Martin & Michael Klingler, “Frentes pioneiras em transformação: o eixo da BR-163 e os desafios socioambientais” (2014) 7:1 *Revista Territórios e Fronteiras* 1–26.

Coyle, Michael, “Loyalty and Distinctiveness: A New Approach to the Crown’s Fiduciary Duty toward Aboriginal Peoples” (2002) 40:4 *Alta L Rev* 841–866.

Craig, Donna, “Recognising Indigenous Rights through Co-Management Regimes: Canadian and Australian Experiences” (2002) 6:6 *NZ J Env’tl L* 199–254.

Craik, Neil, “Process and Reconciliation: Integrating the Duty to Consult with Environmental Assessment” (2015) 53 *Osgoode Hall L J* 632–680.

Crippa, Leonardo A, “Cross-Cutting Issues in the Application of the Guatemalan NEPA: Environmental Impact Assessment and the Rights of Indigenous Peoples Academy on Human Rights and Humanitarian Law: Articles and Essays Analyzing International Human Rights Law and the Protection of the Environment” (2008) 24:1 *Am U Int’l L Rev* 103–140.

Curran, Deborah, “Legalizing the Great Bear Rainforest Agreements: Colonial Adaptations toward Reconciliation and Conservation Special Issue: Environment, Peoples, Power, and the Law: Reconceiving Relationships, (Re)building Bridges” (2016) 3 *McGill L J* 813–860.

Dhillon, Jaskiran, “Introduction: Indigenous Resurgence, Decolonization, and Movements for Environmental Justice” (2018) 9:1 *Environment and Society* 1–5.

DiMento, Joseph F C & Helen Ingram, "Science and Environmental Decision Making: The Potential Role of Environmental Impact Assessment in the Pursuit of Appropriate Information" (2005) 45:2 *Natural Resources Journal* 283–309.

Doelle, Meinhard & A John Sinclair, "The new IAA in Canada: From revolutionary thoughts to reality" (2019) 79 *Environmental Impact Assessment Review* 106292.

———, "Time for a new approach to public participation in EA: Promoting cooperation and consensus for sustainability" (2006) 26:2 *Environmental Impact Assessment Review* 185–205.

Duarte-Abadía, Bibiana, Rutgerd Boelens & Tatiana Roa-Avendaño, "Hydropower, Encroachment and the Re-patterning of Hydrosocial Territory: The Case of Hidrosogamoso in Colombia" (2015) 74:3 *Human Organization* 243–254.

Dusyk, Nichole, "Clean Energy Discourse in British Columbia, 1980-2014" (2016) 189 *BC Studies* 77–101.

Dworkin, Ronald, "What is Equality? Part 1: Equality of Welfare" (1981) 10:3 *Philosophy & Public Affairs* 185–246.

———, "What is Equality? Part 2: Equality of Resources" (1981) 10:4 *Philosophy & Public Affairs* 283–345.

Ewall, Mike, "Legal Tools for Environmental Equity vs. Environmental Justice Environmental Justice and Equity" (2012) 13:1 *Sustainable Dev L & Pol'y* 4–13.

Fearnside, Philip M, "Dams in the Amazon: Belo Monte and Brazil's Hydroelectric Development of the Xingu River Basin" (2006) 38:1 *Environmental Management* 16–27.

———, "Belo Monte: Actors and arguments in the struggle over Brazil's most controversial Amazonian dam" (2017) 148:1 *DIE ERDE – Journal of the Geographical Society of Berlin* 14–26.

———, "Brazil's Belo Monte Dam: Lessons of an Amazonian resource struggle" (2017) 148:2–3 *DIE ERDE – Journal of the Geographical Society of Berlin* 167–184.

Fischer, T B & B Noble, "Impact assessment research: achievements, gaps and future directions - introduction to the March 2015 special issue of the *Journal of Environmental Assessment Policy and Management*" (2015) 17:1 *Journal of environmental assessment policy and management* 1501001-1-1501001–12.

Fladmark, KR, "Early Fur-Trade Forts of the Peace River Area of British Columbia" (1985) 65 *BC Studies* 48–65.

Fletcher, Robert, "When Environmental Issues Collide: Climate Change and the Shifting Political Ecology of Hydroelectric Power" (2010) 5:1 *Peace & Conflict Review* 1–15.

Fluker, Shaun & Nitinkumar Srivastava, "Public Participation in Federal Environmental Assessment under the Canadian Environmental Assessment Act 2012: Assessing the Impact of 'directly affected'" (2016) 29 *Journal of Environmental Law and Practice* 65–81.

Flyvbjerg, Bent, "What You Should Know About Megaprojects, and Why: An Overview" (2014) 45 *Project Management Journal* 6–19.

Fonseca, Alberto & Robert B Gibson, "Testing an ex-ante framework for the evaluation of impact assessment laws: Lessons from Canada and Brazil" (2020) 81 *Environmental Impact Assessment Review* 1–12.

Fonseca, Alberto, Luis Enrique Sánchez & José Claudio Junqueira Ribeiro, "Reforming EIA Systems: A Critical Review of Proposals in Brazil" (2017) 62 *Environmental Impact Assessment Review* 90–97.

Franco, Fernanda Cristina de Oliveira & Maria Luiza Pereira de Alencar Feitosa, "Desenvolvimento e Direitos Humanos. Marcas de Inconstitucionalidade no Processo de Belo Monte" (2013) 9:1 *Revista Direito GV* 93–114.

Fredericks, Carla F, "Operationalizing Free, Prior, and Informed Consent" (2016) 80:2 *Alb L Rev* 429–482.

Freeman, Jody & Daniel A Farber, "Modular environmental regulation" (2005) 54:4 *Duke Law Journal* 795–912.

Gaines, Sanford E, "Reflexive Law as a Legal Paradigm for Sustainable Development Symposium: Learning Sustainability" (2002) 10:1 & 2 *Buff Env'tl LJ* 1–24.

Garvie, Kathryn H, Lana Lowe & Karena Shaw, "Shale Gas Development in Fort Nelson First Nation Territory: Potential Regional Impacts of the LNG Boom" (2014) 184 *BC Studies* 45–72.

Garvie, Kathryn H & Karena Shaw, "Shale gas development and community response: perspectives from Treaty 8 territory, British Columbia" (2016) 21:8 *Local Environment* 1009–1028.

Gibson, Robert B et al, "Strengthening Strategic Environmental Assessment in Canada: An Evaluation of Three Basic Options" (2010) 20:3 *Journal of Environmental Law and Practice* 175–211.

Gibson, Robert B, Meinhard Doelle & A John Sinclair, "Fulfilling the Promise: Basic Components of Next Generation Environmental Assessment" (2016) 29: *Journal Article Journal of Environmental Law and Practice* 257.

Gibson-Wood, Hilary & Sarah Wakefield, "'Participation', White Privilege and Environmental Justice: Understanding Environmentalism Among Hispanics in Toronto" (2013) 45:3 *Antipode* 641–662.

Gonçalves, Ricardo Junior de Assis Fernandes, “Capitalismo extrativista na América Latina e as contradições da mineração em grande escala no Brasil” (2016) 15:29 *Cadernos PROLAM/USP* 38–55.

Gonzalez, Carmen G, “An Environmental Justice Critique of Comparative Advantage: Indigenous Peoples, Trade Policy, and the Mexican Neoliberal Economic Reforms” (2010) 32 *U Pa J Int’l L* 723–804.

Graben, Sari, “Nested Regulation in Law and Development: Identifying Sites of Indigenous Resistance and Reform Special Issue: Law and Development: What’s Next: Cross-Country Comparisons” (2016) 2 *Law & Dev Rev* 233–268.

Graeff, Bibiana, “Should We Adopt a Specific Regulation to Protect People That Are Displaced by Hydroelectric Projects: Reflections Based on Brazilian Law and the Belo Monte Case Green Justice for All: International and Comparative Dimensions of Environmental Justice” (2011) 7 *Fla A & M U L Rev* 261–290.

Green, Andrew, “Discretion, Judicial Review, and the Canadian Environmental Assessment Act” (2001) 27:2 *Queen’s LJ* 785–808.

Green, W Nathan & Ian G Baird, “Capitalizing on Compensation: Hydropower Resettlement and the Commodification and Decommodification of Nature–Society Relations in Southern Laos” (2016) 106:4 *Annals of the American Association of Geographers* 853–873.

Griffith, Jane, “Hoover Damn: Land, Labor, and Settler Colonial Cultural Production” (2017) 17:1 *Cultural Studies ↔ Critical Methodologies* 30–40.

Hanna, Alan, “Making the Round: Aboriginal Title in the Common Law from a Tsilhqot’in Legal Perspective” (2013) 45:3 *Ottawa L Rev* 365–402.

Hanna, Philippe et al, “Improving the effectiveness of impact assessment pertaining to Indigenous peoples in the Brazilian environmental licensing procedure” (2014) 46 *Environmental Impact Assessment Review* 58–67.

Hanna, Philippe & Frank Vanclay, “Human rights, Indigenous peoples and the concept of Free, Prior and Informed Consent” (2013) 31:2 *Impact Assessment and Project Appraisal* 146–157.

Harding, Sandra, “‘Strong Objectivity’: A Response to the New Objectivity Question” (1995) 104:3 *Synthese (Feminism and Science)* 331–349.

Harper, Krista, Tamara Steger & Richard Filčák, “Environmental justice and Roma communities in Central and Eastern Europe” (2009) 19:4 *Environmental Policy and Governance* 251–268.

Harvey, David, “The Nature of Environment: The Dialectics of Social and Environmental Change” (1993) 29:1 *The Socialist Register* 1–51.

Heinämäki, Leena, “Right to Be a Part of Nature: Greening Human Rights via Strengthening Indigenous Peoples, The” (2012) 4 Y B Polar L 415–474.

———, “Toward an Equal Partnership between Indigenous Peoples and States: Learning from Artic Experiences” (2011) 3 Yearbook of Polar Law 193–246.

Henley, Paul, “‘Os índios e a civilização’ : A Critical Appreciation” (1978) 4:3 Cambridge Anthropology 88–111.

Herculano, Selene, “O Clamor por Justiça Ambiental e Contra o Racismo Ambiental” (2008) 3:1 Revista de Gestão Integrada em Saúde do Trabalhador e Meio Ambiente 1–20.

Hillman, Mick, “Situated justice in environmental decision-making: Lessons from river management in Southeastern Australia” (2006) 37:5 Geoforum 695–707.

Hochstetler, Kathryn, “The Politics of Environmental Licensing: Energy Projects of the Past and Future in Brazil” (2011) 46:4 Studies in Comparative International Development 349–371.

Holifield, Ryan, “Environmental Justice as Recognition and Participation in Risk Assessment: Negotiating and Translating Health Risk at a Superfund Site in Indian Country” (2012) 102:3 Annals of the Association of American Geographers 591–613.

———, “Environmental Reviews and Case Studies: Accounting for Diversity in Environmental Justice Screening Tools: Toward Multiple Indices of Disproportionate Impact” (2014) 16:1 Environmental Practice 77–86.

Horberry, John, “United nations environment programme: Guidelines for industrial environmental impact assessment and environmental criteria for the siting of industry” (1980) 1:2 Environmental Impact Assessment Review 208–210.

Huggins, William, “Pipelines, Mines, and Dams: Indigenous Literary Water Ecologies and the Fight for a Sustainable Future” (2017) 44:1 Canadian Review of Comparative Literature / Revue Canadienne de Littérature Comparée 54–67.

Hughes, Layla, “Relationships with Arctic indigenous peoples: To what extent has prior informed consent become a norm?” (2018) 27 Wiley Reciel 15–27.

Hutchins, Peter W, David Schulze & Carol Hilling, “When Do Fiduciary Obligations to Aboriginal People Arise” (1995) 59:1 Sask L Rev 97–138.

Iles, Alastair T, “Mapping Environmental Justice in Technology Flows: Computer Waste Impacts in Asia” (2004) 4:4 Global Environmental Politics 76–107.

Jackson, Tony & Barbara Illsley, “An analysis of the theoretical rationale for using strategic environmental assessment to deliver environmental justice in the light of the Scottish Environmental Assessment Act” (2007) 27:7 Environmental Impact Assessment Review 607–623.

Jaichand, Vinodh & Alexandre Andrade Sampaio, “Dam and Be Damned: The Adverse Impacts of Belo Monte on Indigenous Peoples in Brazil” (2013) 35:2 *Human Rights Quarterly* 408–447.

Kiker, Gregory A et al, “Application of multicriteria decision analysis in environmental decision making” (2005) 1:2 *Integrated Environmental Assessment and Management* 95–108.

Krakoff, Sarah, “Tribal Sovereignty and Environmental Justice” in Kathryn M. Mutz, Gary C. Bryner, Douglas S. Kenney, *Justice and Natural Resources Concepts, Strategies, and Applications* (Washington: Island Press, 2002) 161.

Kruger, Toby, “The Canadian Environmental Assessment Act and Global Climate Change: Rethinking Significance” (2009) 47:1 *Alberta Law Review* 161–183.

Kuehn, Robert R., “A Taxonomy of Environmental Justice” (2000) 30:9 *Envtl L Rep News & Analysis* 10681–10703.

———, “Bias in environmental agency decision making” (2015) 45:4 *Environmental Law* 992–1019.

Kurtz, Hilda E, “Scale frames and counter-scale frames: constructing the problem of environmental injustice” (2003) 22:8 *Political Geography* 887–916.

Lake, Robert W, “Volunteers, NIMBYs, and Environmental Justice: Dilemmas Of Democratic Practice” (1996) 28:2 *Antipode* 160–174.

Lalor, Briony M & Gordon M Hickey, “Strengthening the Role of Science in the Environmental Decision-Making Processes of Executive Government” (2014) 27:2 *Organization & Environment* 161–180.

Latrubesse, Edgardo M et al, “Damming the rivers of the Amazon basin” (2017) 546:7658 *Nature* 363–369.

Lawrence, Bonita & Enakshi Dua, “Decolonizing Antiracism” (2005) 32:4 (102) *Social Justice* 120–143.

Lawrence, Michael P, “Damming Rivers, Damning Cultures” (2005) 30 *Am Indian L Review* 247–290.

Legrand, Pierre, “On the Singularity of Law” (2006) 47 *Harv Int’l LJ* 517.

Lewis, Corinne & Carl Söderbergh, “The World Bank’s new Environmental and Social Framework: some progress but many gaps regarding the rights of indigenous peoples” (2019) 23:1–2 *The International Journal of Human Rights* 63–86.

Lindstrom, Matthew J, “Procedures without Purpose: The Withering Away of the National Environmental Policy Act’s Substantive Law” (2000) 20 J Land Resources & Envtl L 245–268.

Loureiro, Violeta Refkalefsky, “Desenvolvimento, meio ambiente e direitos dos índios: da necessidade de um novo ethos jurídico” (2010) 6:2 Revista Direito GV 503–526.

Magalhães, Sônia Barbosa, Moral Hernández & Francisco Del, “Ciência, cientistas e democracia desfigurada: o caso Belo Monte” (2011) 14:1 Novos Cadernos NAEA 79–96.

Markell, David L, “Understanding citizen perspectives on government decision making processes as a way to improve the administrative state” (2006) 36:3 Environmental Law 651–708.

Marschke, Melissa, David Szablowski & Peter Vandergeest, “Engaging Indigeneity in Development Policy” (2008) 26:4 Development Policy Review 483–500.

Martinez-Alier, Joan et al, “Is there a global environmental justice movement?” (2016) 43:3 The Journal of Peasant Studies 731–755.

Mascarenhas, Michael, “Where the Waters Divide: First Nations, Tainted Water and Environmental Justice in Canada” (2007) 12:6 Local Environment 565–577.

McGregor, Deborah, “Lessons for Collaboration Involving Traditional Knowledge and Environmental Governance in Ontario, Canada” (2014) 10:4 AlterNative: An International Journal of Indigenous Peoples 340–353.

———, “Mino-Mnaamodzawin: Achieving Indigenous Environmental Justice in Canada” (2018) 9:1 Environment and Society 7–24.

Mello, Cecilia Campello do Amaral, “Se houvesse equidade: a percepção dos grupos indígenas e ribeirinhos da região da Altamira sobre o projeto da Usina Hidrelétrica de Belo Monte” (2013) 16:1 Novos Cadernos NAEA 125–147.

M’Gonigle, Michael et al, “Taking Uncertainty Seriously: From Permissive regulation to Preventative Design in Environmental Decision-Making” (1994) 32:1 Osgoode Hall Law Journal 99–169.

Mihaly, Marc B, “Citizen Participation in the Making of Environmental Decisions: Evolving Obstacles and Potential Solutions through Partnership with Experts and Agents Special Edition: Environmental Interest Dispute Resolution: Changing Times - Changing Practice” (2009) 27 Pace Envtl L Rev 151–226.

Mohai, Paul & Robin Saha, “Which came first, people or pollution? Assessing the disparate siting and post-siting demographic change hypotheses of environmental injustice” (2015) 10:11 Environ Res Lett 115008.

Moore, Michele-Lee, Suzanne von der Porten & Heather Castleden, "Consultation is not consent: hydraulic fracturing and water governance on Indigenous lands in Canada" (2017) 4:1 WIREs Water n/a.

Morales, Sarah, "Digging for Rights: How Can International Human Rights Law Better Protect Indigenous Women from Extractive Industries" (2019) 31:1 Can J Women & L 58–90.

Muir, Bruce R, "Closing the regulatory gap: revisions to the conventional practice of ex-post plans for EIAs to protect the valued components of Aboriginal peoples in Canada" (2018) 36:2 Impact Assessment and Project Appraisal 186–203.

———, "Effectiveness of the EIA for the Site C Hydroelectric Dam Reconsidered: Nature of Indigenous Cultures, Rights, and Engagement" (2018) 20:4 Journal of Environmental Assessment Policy and Management 1850014-1-1850014–41.

Muir, Bruce R & Annie L Booth, "An environmental justice analysis of caribou recovery planning, protection of an Indigenous culture, and coal mining development in northeast British Columbia, Canada" (2012) 14:4 Environ Dev Sustain 455–476.

Nadasdy, Paul, "The Politics of Tek: Power and the 'Integration' of Knowledge" (1999) 36:1/2 Arctic Anthropology 1–18.

Nagle, Mary Kathryn, "Environmental Justice and Tribal Sovereignty: Lessons from Standing Rock" (2018) The Yale Law Journal Forum 667–684.

Nesti, Lorenzo, "The Mapuche-Pehuenche and the Ralco Dam on the Biobio River: The Challenge of Protecting Indigenous Land Rights" (2002) 9:1 Int'l J on Minority & Group Rts 1–40.

Newman, Ralph A, "The Place and Function of Pure Equity in the Structure of Law" (1965) 16 The Hastings Law Journal 401–429.

Nguyen, Thi Hanh Tien et al, "Modelling Tools to Analyze and Assess the Ecological Impact of Hydropower Dams" (2018) 10:3 Water 259.

Niekerk, Gardiol van, "Indigenous law and narrative: rethinking methodology" (1999) 32:2 Comparative and International Law Journal of Southern Africa 208–227.

Nilsson, Andreas et al, "Public acceptability towards environmental policy measures: Value-matching appeals" (2016) 61 Environmental Science & Policy 176–184.

Nosek, Grace, "Re-Imagining Indigenous Peoples' Role in Natural Resource Development Decision Making; Implementing Free, Prior and Informed Consent in Canada through Indigenous Legal Traditions" (2017) 1 UBC L Rev 95–160.

Nursey-Bray, Melissa, Pedro Fidelman & Mensah Owusu, "Does co-management facilitate adaptive capacity in times of environmental change? Insights from fisheries in Australia" (2018) 96 *Marine Policy* 72–80.

Nursey-Bray, Melissa, Helene Marsh & Helen Ross, "Exploring Discourses in Environmental Decision Making: An Indigenous Hunting Case Study" (2010) 23:4 *Society & Natural Resources* 366–382.

Nweke, Onyemaechi C, "A Framework for Integrating Environmental Justice in Regulatory Analysis" (2011) 8:6 *International Journal of Environmental Research and Public Health* 2366.

O'Faircheallaigh, Ciaran, "Public Participation and Environmental Impact Assessment: Purposes, Implications, and Lessons for Public Policy Making" (2010) 30 *Environmental Impact Assessment Review* 19–27.

Olszynski, Martin Z P, "Environmental Assessment as Planning and Disclosure Tool: *Greepeace Canada v. Canada (A.G.)*" (2015) 38:1 *Dalhousie LJ* 207–236.

O'Neill, Catherine A, "Environmental Justice in the Tribal Context: A Madness to EPA's Method" (2008) 38 *Environmental Law* 495–536.

———, "Risk Avoidance, Cultural Discrimination, and Environmental Justice for Indigenous Peoples" (2003) 30:1 *Ecology Law Quarterly* 1.

Orellana, Marcos A, "Indigenous Peoples, Energy and Environmental Justice: The Panguel/Ralco Hydroelectric Project in Chile's Alto BíoBío" (2005) 23:4 *Journal of Energy & Natural Resources Law* 511–528.

Page, Justin, "Salmon Farming in First Nations' Territories: A Case of Environmental Injustice on Canada's West Coast" (2007) 12:6 *Local Environment* 613–626.

Pasternak, Shiri, "Jurisdiction and Settler Colonialism: Where Do Laws Meet?" (2014) 29:2 *Canadian Journal of Law and Society* 145–161.

Pereira, Airton dos Reis, "Colonization and Conflicts in Transmazonics in Times of the Brazilian Civil-Military Dictatorship" (2013) 31:2 *Clio: Revista de Pesquisa Histórica* 1–17.

Plessis, Ané du, "Public participation, Good Environmental Governance and fulfilment of Environmental rights" (2008) 11:2 *PELJ* 170–200.

Porten, Suzanne von der & Robert C de Loe, "Collaborative approaches to governance for water and Indigenous peoples: A case study from British Columbia, Canada" (2013) 50 *Geoforum* 149–160.

Prado, Mariana Mota, Mario Schapiro & Diogo R Coutinho, "The Dilemmas of the Developmental State: Democracy and Economic Development in Brazil Special Issue:

Law and Development: What's Next: Country Case Studies" (2016) 2 Law & Dev Rev 369–410.

Promislow, Janna, "Irreconcilable: The Duty to Consult and Administrative Decision Makers" (2013) 22 Const F 63–79.

Prophet, Cliff, "Public Participation, Executive Discretion and Environmental Assessment: Confused Norms, Uncertain Limits" (1990) 48 U Toronto Fac L Rev 279–303.

Quijano, Aníbal, "'Bien vivir': entre el 'desarrollo' y la des/colonialidad del poder" (2011) 084 Revista Ecuador Debate 77–87.

Randell, Heather, "Structure and agency in development-induced forced migration: the case of Brazil's Belo Monte Dam" (2016) 37:3 Popul Environ 265–287.

Reitz, John C, "How to Do Comparative Law" (1998) 46:4 The American Journal of Comparative Law 617–636.

Reo, Nicholas J et al, "Factors that support Indigenous involvement in multi-actor environmental stewardship" (2017) 13:2 AlterNative: An International Journal of Indigenous Peoples 58–68.

Richardson, Tim, "Environmental assessment and planning theory: four short stories about power, multiple rationality, and ethics" (2005) 25:4 Environmental Impact Assessment Review 341–365.

Ristroph, Elizaveta, "Integrating Community Knowledge into Environmental and Natural Resource Decision-Making: Notes from Alaska and Around the World" (2012) Washington & Lee Journal of Energy, Climate and Environment 81–133.

Ritter, Camila D et al, "Environmental impact assessment in Brazilian Amazonia: Challenges and prospects to assess biodiversity" (2017) 206 Biological Conservation 161–168.

Rocha, Julio Cesar de Sá da & Ricardo Oliveira Rotondano, "Uma necessária limitação ao atual conceito de discricionariedade administrativa: fundamentos da teoria da discricionariedade mínima e aplicação no Direito Ambiental" (2011) 32:63 Sequência: estudos jurídicos e políticos 101–132.

Rombouts, S J, "The Evolution of Indigenous Peoples' Consultation Rights under the ILO and U.N. Regimes" (2017) 53:2 Stan J Int'l L 169–224.

Rotman, Leonard I, "Crown-Native Relations as Fiduciary: Reflections almost Twenty Years after Guerin Aboriginal Rights" (2003) 22 Windsor YB Access Just 363–398.

Ruhl, J B, "Thinking of Environmental Law as a Complex Adaptive System: How to Clean Up the Environment by Making a Mess of Environmental Law" (1997) 34:4 *Hous L Rev* 933–1002.

Saygili, Abdurrahman, "Legal Functions of the Concept of Significance in the Process of Environmental Impact Assessment" (2009) 2 *Ankara B Rev* 25–29.

Scheppele, Kim Lane, "Constitutional Ethnography: An Introduction" (2004) 38:3 *Law & Society Review* 389–406.

Schilling-Vacaflor, Almut, "Who controls the territory and the resources? Free, prior and informed consent (FPIC) as a contested human rights practice in Bolivia" (2017) 38:5 *Third World Quarterly* 1058–1074.

Schlosberg, David & David Carruthers, "Indigenous Struggles, Environmental Justice, and Community Capabilities" (2010) 10:4 *Global Environmental Politics* 12–35.

Scott, Dayna, "The Networked Infrastructure of Fossil Capitalism: Implications of the New Pipeline Debates for Environmental Justice in Canada" (2013) 43 *Revue générale de droit* 11–66.

———, "'We Are the Monitors Now': Experiential Knowledge, Transcorporeality and Environmental Justice" (2016) 25:3 *Social & Legal Studies* 261–287.

Scott, Dayna Nadine & Andréé Boisselle, "If There Can Only Be 'One Law', It Must Be Treaty Law. Learning From Kanawayandan D'aaki" (2019) 70 *UNBLJ* 230.

Scott, Dayna Nadine & Adrian A Smith, "'Sacrifice Zones' in the Green Energy Economy: Toward an Environmental Justice Framework" (2017) 62:3 *McGill Law Journal* 861–898.

Seck, Sara L, "Relational Law and the Reimagining of Tools for Environmental and Climate Justice" (2019) 31:1 *Can J Women & L* 151–177.

Sequeira, João Elbio de Oliveira Aquino, "Estruturas de Oportunidade Legal dos movimentos anti-barragens no Pará / Structures of legal opportunity of the social movements against dams in Pará" (2017) 8:1 *Revista Direito e Práxis* 474–506.

Seymour, Mona, "Just sustainability in urban parks" (2012) 17:2 *Local Environment* 167–185.

Siciliano, Giuseppina & Frauke Urban, "Equity-based Natural Resource Allocation for Infrastructure Development: Evidence From Large Hydropower Dams in Africa and Asia" (2017) 134 *Ecological Economics* 130–139.

Sierra-Camargo, Jimena, "La Importancia De Decolonizar La Enseñanza Del Derecho Internacional De Los Derechos Humanos: El Caso De La Consulta Previa En Colombia

(The Importance of Decolonizing International Human Rights Law: The Prior Consultation in Colombia Case)” (2017) 39 *Revista Derecho del Estado* 137–186.

Sikor, Thomas et al, “Brokering justice: global indigenous rights and struggles over hydropower in Nepal” (2019) 40:3 *Canadian Journal of Development Studies / Revue canadienne d’études du développement* 311–329.

Simon-Kumar, Rachel et al, “Towards North-South Interconnectedness: a Critique of Gender Dualities in Sustainable Development, the Environment and Women’s Health” (2018) 25:3 *Gender, Work & Organization* 246–263.

Simpson, Nicholas Philip & Claudia Basta, “Sufficiently capable for effective participation in environmental impact assessment?” (2018) 70 *Environmental Impact Assessment Review* 57–70.

Sinclair, A John & Alan P Diduck, “Reconceptualizing public participation in environmental assessment as EA civics” (2017) 62 *Environmental Impact Assessment Review* 174–182.

Sinclair, A John, Meinhard Doelle & Peter N Duinker, “Looking up, down, and sideways: Reconceiving cumulative effects assessment as a mindset” (2017) 62 *Environmental Impact Assessment Review* 183–194.

Squillace, Mark, “An American Perspective on Environmental Impact Assessment in Australia” (1995) 20:1 *Colum J Envntl L* 43–120.

Steffen, Will et al, “Planetary boundaries: Guiding human development on a changing planet” (2015) 347:6223 *Science* 736–747.

Stumpf, Klara Helene et al, “The Justice Dimension of Sustainability: A Systematic and General Conceptual Framework” (2015) 7:6 *Sustainability* 7438–7472.

Sze, Julie et al, “Defining and Contesting Environmental Justice: Socio-natures and the Politics of Scale in the Delta” (2009) 41:4 *Antipode* 807–843.

Taylor, Dorcetta E, “The Rise of the Environmental Justice Paradigm” (2000) 43:4 *American Behavioral Scientist* 508–580.

Thompson, Shirley, “Flooding of First Nations and Environmental Justice in Manitoba: Case Studies of the Impacts of the 2011 Flood and Hydro Development in Manitoba” (2015) 38:2 *Manitoba Law Journal* 220–259.

Tilt, Bryan, Yvonne Braun & Daming He, “Social impacts of large dam projects: A comparison of international case studies and implications for best practice” (2009) 90:3 *Journal of Environmental Management* S249–S257.

Todd, Jeff, “A ‘Sense of Equity’ in Environmental Justice Litigation” (2020) 44:1 *Harv Envntl L Rev* 169–234.

- Tomlinson, Kathryn, "Indigenous rights and extractive resource projects: negotiations over the policy and implementation of FPIC" (2019) 23:5 *The International Journal of Human Rights* 880–897.
- Tsosie, Rebecca, "Indigenous People and Environmental Justice: The Impact of Climate Change" (2007) 78 *University of Colorado Law Review* 1625–1678.
- Tuck, Eve & K Wayne Yang, "Decolonization is not a metaphor" (2012) 1:1 *Decolonization: Indigeneity, Education & Society* 1–40.
- Turner, Nancy J et al, "From Invisibility to Transparency: Identifying the Implications" (2008) 13:2 *Ecology and Society* 7.
- Turner, Nancy J, Douglas Deur & Dana Lepofsky, "Plant management systems of British Columbia's first peoples" (2013) 179 *BC Studies* 107.
- Udofia, Aniekan, Bram Noble & Greg Poelzer, "Meaningful and efficient? Enduring challenges to Aboriginal participation in environmental assessment" (2017) 65 *Environmental Impact Assessment Review* 164–174.
- Urkidi, Leire & Mariana Walter, "Dimensions of Environmental Justice in Anti-Gold Mining Movement in Latin America" (2011) 42 *Geoforum* 683.
- Walker, Gordon, "Beyond Distribution and Proximity: Exploring the Multiple Spatialities of Environmental Justice" (2009) 41:4 *Antipode* 614–636.
- , "Environmental Justice, Impact Assessment and the Politics of Knowledge. The Implications of Assessing the Social Distribution of Environmental Outcomes" (2010) 30 *Environmental Impact Assessment Review* 312.
- , "Environmental justice, impact assessment and the politics of knowledge: The implications of assessing the social distribution of environmental outcomes" (2010) 30:5 *Environmental Impact Assessment Review* 312–318.
- Walker, Peter A, "Political ecology: where is the ecology?" (2005) 29:1 *Progress in Human Geography* 73–82.
- Ward, Tara, "The Right to Free, Prior, and Informed Consent: Indigenous Peoples' Participation Rights within International Law" (2011) 10:2 *Nw U J Int'l Hum Rts* 54–84.
- Weitzner, Viviane, "'Nosotros Somos Estado': contested legalities in decision-making about extractives affecting ancestral territories in Colombia" 38:5 *Third World Quarterly* 1198–1214.
- Whitelaw, Graham S, Daniel D McCarthy & Leonard J S Tsuji, "The Victor Diamond Mine environmental assessment process: a critical First Nation perspective" (2009) 27:3 *Impact Assessment and Project Appraisal* 205–215.

Whyte, Kyle, “Settler Colonialism, Ecology, and Environmental Injustice” (2018) 9:1 *Environment and Society* 125–144.

Whyte, Kyle Powys, Joseph P Brewer & Jay T Johnson, “Weaving Indigenous science, protocols and sustainability science” (2016) 11:1 *Sustainability Science* 25–32.

Wiersema, Annecoos, “A train without tracks: rethinking the place of law and goals in environmental and natural resources law” *Environmental Law* (2008) 1239.

Wiessner, Siegfried, “Indigenous Sovereignty: A Reassessment in Light of the UN Declaration on the Rights of Indigenous People” (2008) 41:4 *Vand J Transnat’l L* 1141–1176.

Yaffe, Nathan, “Indigenous Consent: A Self-Determination Perspective” (2018) 19:2 *Melb J Int’l L* 703–749.

Yamamoto, Eric K & Jen-L W Lyman, “Racializing Environmental Justice” (2001) 72 *U Colo L Rev* 311–360.

Yanhua, Zhuang et al, “Global Environmental Impact Assessment Research Trends (1973-2009)” (2011) 11 *Procedia Environmental Sciences* 1499–1507.

Yazzie, Melanie K, “Decolonizing Development in Diné Bikeyah: Resource Extraction, Anti-Capitalism, and Relational Futures” (2018) 9:1 *Environment and Society* 25–39.

Yelkate-Clifford, Robert, “WSANEC Legal Theory and the Fuel Spill at SELEKTEL (Goldstream River) Special Issue - Indigenous Law and Legal Pluralism” (2015) 61:4 *McGill L J* 755–794.

Young, Nathan et al, “‘Consulted to death’: Personal stress as a major barrier to environmental co-management” (2020) 254 *Journal of Environmental Management* 109820.

Ziai, Aram, “Post-development 25 years after The Development Dictionary” (2017) 38:12 *Third World Quarterly* 2547–2558.

SECONDARY MATERIALS: NEWS ARTICLES

Chandran, Nyshka, “Southeast Asia is betting on hydropower, but there are risks of economic damage”, *CNBC* (10 August 2018), online: <<https://www.cnbc.com/2018/08/10/hydropower-in-southeast-asia-dams-may-risk-economic-damage.html>>.

Cochrane, Brian, “Site C Dam Is a Good Decision for British Columbia”, (28 March 2018), online: *The Tyee* <<https://thetyee.ca/Opinion/2018/03/28/Site-C-Dam-Is-Good-Decision/>>.

Cowie, Sam, “Jair Bolsonaro Praised the Genocide of Indigenous People. Now He’s Emboldening Attackers of Brazil’s Amazonian Communities.”, *The Intercept* (16 February 2019), online: <<https://theintercept.com/2019/02/16/brazil-bolsonaro-indigenous-land/>>.

Cox, Sarah, “BC Hydro Apologizes for Bennett Dam’s ‘Profound and Painful’ Impact on First Nations at Gallery Opening”, *The Narwhal* (10 June 2016), online: <<https://thenarwhal.ca/bc-hydro-apologizes-bennett-dam-s-profound-and-painful-impact-first-nations-gallery-opening/>>.

———, “Manitoba’s hydro mess points to Canada’s larger problem with megadams”, *The Narwhal* (22 November 2018), online: <<https://thenarwhal.ca/manitobas-hydro-mess-points-to-canadas-larger-problem-with-megadams/>>.

———, “The dirty business of clean power”, *National Post* (14 May 2019), online: <<https://nationalpost.com/news/canada/the-dirty-business-of-clean-power>>.

———, “Valuable First Nations Historic Sites ‘Will Be Gone Forever’ if Site C Dam Proceeds: Archaeologist”, *The Narwhal* (8 January 2016), online: <<https://thenarwhal.ca/valuable-first-nations-historic-sites-will-be-gone-forever-if-site-c-dam-proceeds-archaeologist/>>.

Ducklow, Zoë, “Site C to Test B.C. NDP’s Commitment to Indigenous Rights”, *The Narwhal* (14 September 2017), online: <<https://thenarwhal.ca/site-c-test-b-c-ndp-s-commitment-indigenous-rights/>>.

Gavin Fisher, “BC Hydro acknowledges dark past of W.A.C. Bennett dam in new exhibit”, (15 June 2016), online: *CBC News* <<https://www.cbc.ca/news/canada/british-columbia/bc-hydro-acknowledges-dark-past-of-wac-bennett-dam-1.3637489>>.

J.P., “Power to the people”, *The Economist* (5 February 2014), online: <<https://www.economist.com/americas-view/2014/02/05/power-to-the-people>>.

Kurjata, Andrew, “West Moberly, Prophet River First Nations warn Site C approval could lead to billion dollar treaty violation | CBC News”, (21 November 2017), online: *CBC* <<https://www.cbc.ca/news/canada/british-columbia/west-moberly-prophet-river-first-nations-warn-site-c-approval-could-lead-to-billion-dollar-treaty-violation-1.4411061>>.

Kurjata, Andrew, “West Moberly and Prophet River First Nations file court claim to stop Site C”, *CBC News* (16 January 2018), online: <<http://www.cbc.ca/news/canada/british-columbia/site-c-dam-court-case-1.4489679>>.

Linnitt, Carol, “New Video: Cutting Through the Spin on the Site C Dam with Harry Swain”, (26 October 2016), online: *The Narwhal* <<https://thenarwhal.ca/new-video-cutting-through-spin-site-c-dam-harry-swain/>>.

Palmer, Vaughn, “Getting Site C to point of no return a damning progress report, so far | Vancouver Sun”, (6 January 2017), online: <<https://vancouversun.com/opinion/columnists/vaughn-palmer-getting-site-c-to-point-of-no-return-a-damning-progress-report-so-far>>.

Parfitt, Ben “Site C dam to electrify LNG industry is far from clean”, *Vancouver Sun* (4 March 2019), online: <<https://vancouversun.com/opinion/op-ed/ben-parfitt-site-c-dam-to-electrify-lng-industry-is-far-from-clean>>.

Pérez, Mark Sabaj, “Where the Xingu Bends and Will Soon Break” *American Scientist* (December 2015) 395.

Phillips, Dom, “Brazil: indigenous people rally in capital to protest against Bolsonaro onslaught”, *the Guardian* (Abril 2019), online: <<http://www.theguardian.com/world/2019/apr/24/brazil-indigenous-people-bolsonaro-protest>>.

Pollon, Christopher, “Stung by derailed negotiations with B.C., Blueberry River First Nations return to court”, *The Narwhal* (24 May 2019), online: <<https://thenarwhal.ca/stung-by-derailed-negotiations-with-b-c-blueberry-river-first-nations-return-to-court/>>.

Shaw, Derrick Penner and Rob, “New Hydro boss: Gordon Campbell’s former deputy takes over utility”, *Times Colonist* (29 May 2014), online: <<https://www.timescolonist.com/business/new-hydro-boss-gordon-campbell-s-former-deputy-takes-over-utility-1.1096740>>.

Smith, Charlie, “The B.C. NDP, the Site C dam, and the 2017 provincial election”, *The Georgia Straight* (14 May 2015), online: <<https://www.straight.com/news/451746/bc-ndp-site-c-dam-and-2017-provincial-election>>.

Smith, Charlie, “More than 250 Canadian scientists and professors sign letter objecting to Site C dam approval”, (24 May 2016), online: *The Georgia Straight* <<https://www.straight.com/news/703556/more-250-canadian-scientists-and-professors-sign-letter-objecting-site-c-dam-approval>>.

Verdélia, Andreia, “Bolsonaro says he will do no indigenous land demarcation”, *Agência Brasil* (16 August 2019), online: <<https://agenciabrasil.ebc.com.br/en/politica/noticia/2019-08/bolsonaro-says-he-will-do-no-indigenous-land-demarcation>>.

Yapp, Robin, “Brazil’s Belo Monte dam: a history of celebrity opposition”, *Telegraph*, (28 January 2011), online: <<https://www.telegraph.co.uk/news/worldnews/southamerica/brazil/8287289/Brazils-Belo-Monte-dam-a-history-of-celebrity-opposition.html>>.

Watts, Jonathan, “Brazil’s worst drought in history prompts protests and blackouts”, *the Guardian* (23 January 2015), online:
 <<http://www.theguardian.com/world/2015/jan/23/brazil-worst-drought-history>>.

SECONDARY MATERIALS: REPORTS

Agência Nacional de Energia Elétrica, Brasília, *Atlas da Energia Elétrica no Brasil* (2008) ANEEL (Brazil).

BC Hydro, *Environmental Impact Statement. Executive Summary. Site C Clean Energy Project*, Executive Summary - Part 1 and 2, by BC Hydro, Executive Summary - Part 1 and 2 (Vancouver, BC: BC Hydro, 2013).

BC Hydro, *Response to working group and public comments on the Site C Clean Energy Project Environmental Impact Statement. Technical Memo: Cumulative Effects Assessment*, by BC Hydro (Vancouver, B.C: BC Hydro, 2013).

BC Hydro, *Site C Clean Energy Project - Complete Environmental Impact Statement including Amendments*, by BC Hydro (Vancouver, B.C: BC Hydro, 2013).

BC Hydro, *Site C Project Budget*, by BC Hydro (Vancouver, B.C: BC Hydro, 2018).

British Columbia Utilities Commission, *Site C Report. Report and Recommendations to the Lieutenant Governor-in-Council*, by British Columbia Utilities Commission (Vancouver: British Columbia Utilities Commission, 1983).

Collaborative Committee for the 1991-94 Conservation Potential Review, *Electricity Conservation Potential in BC Hydro’s Service Area*, by Collaborative Committee for the 1991-94 Conservation Potential Review (Vancouver, BC, 1994).

Commission for Racial Justice, *Toxic Waste and Race in the United States. A National Report on the Racial and Socio-Economic Characteristics of Communities with Hazardous Waste Sites*, by Commission for Racial Justice (New York, NY: United Church of Christ., 1987).

Conselho Indigenista Missionário, *Violence Against Indigenous Peoples In Brazil. Data for 2017*, by Conselho Indigenista Missionário (Brasília, Brazil: Conselho Indigenista Missionário, 2017).

———, *Violência Contra os Povos Indígenas no Brasil - Dados 2019*, by Conselho Indigenista Missionário (Brasília, Brazil: Conselho Indigenista Missionário, 2020).

———, *Violência contra os Povos Indígenas no Brasil-Dados de 2018*, by Conselho Indigenista Missionário (Brasília: Conselho Indigenista Missionário, 2018).

Eletrobrás, *Estudos Etnoecológicos – EIA AHE Belo Monte*, (2009) Eletrobrás (Brazil).

Empresa de Pesquisa Energética, *Anuário Estatístico de Energia Elétrica*, by Empresa de Pesquisa Energética (Brasília, 2016).

Fish and Wildlife Compensation Program, *Williston-Dinosaur Watershed Fish Mercury Investigation*, by Fish and Wildlife Compensation Program (2019).

Fundação Getúlio Vargas & Câmara Técnica de Monitoramento de Condicionantes, *Indicadores Belo Monte* (2014).

Goulding, AJ, *Dammed If You Do: How Sunk Costs Are Dragging Canadian Electricity Ratepayers Underwater*, by AJ Goulding, Commentary n. 528 (C.D. Howe Institute, 2019).

Hendriks, Richard, Karen Bakker & Philip Raphals, *Reassessing the Need for Site C*, by Richard Hendriks, Karen Bakker & Philip Raphals, Program on Water Governance (Vancouver, BC: University of British Columbia, 2017).

Inter-Am Comm HR, *Annual Report of the Inter-American Commission on Human Rights: 2011*, by Inter-Am Comm HR, No MC 382/10 (2011).

International Hydropower Association, *Hydropower Status Report*, by International Hydropower Association (London UK: International Hydropower Association, 2019).

International Rivers, *Belo Monte Dam* (Oakland, US: International Rivers, 2012).

Instituto Brasileiro de Geografia e Estatística (IBGE) & Fundação Nacional do Índio (FUNAI), *O Brasil Indígena*, by Instituto Brasileiro de Geografia e Estatística (IBGE) & Fundação Nacional do Índio (FUNAI) (Brasília, Brazil, 2010).

Land, Lorraine, *Who's afraid of the big, bad FPIC? The evolving integration of the United Nations Declaration on the Rights of Indigenous Peoples into Canadian law and policy*, by Lorraine Land (Northern Public Affairs, 2016).

Laven, Max, "Brazilian (non)Compliance with International Human Rights Norms. The case of indigenous peoples' rights" Max Laven, Radboud University Nijmegen (2014).

MacDonald, Eliana, *Atlas of Cumulative Landscape Disturbance in the Traditional Territory of the Blueberry River First Nation*, by Eliana MacDonald (Ecotrust Canada and David Suzuki Foundation, 2016).

Meyer, Kimber, Léonie Guguen & Walton Pantland, *Why is mining still so dangerous?*, by Kimber Meyer, Léonie Guguen & Walton Pantland (Geneva: Industrial Union, 2019).

Norte Energia, *Belo Monte Report Basic Environmental Project Indigenous Component*, by Norte Energia (Brasília, 2016).

BC Utilities Commission, *Utilities Commission Inquiry Respecting Site C. Final Report to the Government of British Columbia*, by BC Utilities Commission (Vancouver, BC, 2017).

Review Panel Established by the Federal Minister of the Environment and the British Columbia Minister of Environment, *Report of the Joint Review Panel - Site C clean energy project, BC Hydro* (Ottawa and Victoria: Federal Ministry of Environment and BC Ministry of Environment, 2014).

Roach, Robert & Barry Worbets, *Keeping Pace: Improving Environmental Decision-Making in Canada*, by Robert Roach & Barry Worbets (Canada West Foundation, 2012).

Sadler, Barry, *International Study of the Effectiveness of Environmental Assessment. Environmental Assessment in a Changing World: Evaluating Practice to Improve Performance, Final Report.*, by Barry Sadler (Ottawa: Canadian Environmental Assessment Agency and International Association of Impact Assessment, 1996).

Santos, Sônia Maria Barbosa Magalhães & Francisco del Moral Hernandez, *Painel de Especialistas. Análise Crítica do Estudo de Impacto Ambiental do Aproveitamento Hidrelétrico de Belo Monte*, Independent Expert Panel, by Sônia Maria Barbosa Magalhães Santos & Francisco del Moral Hernandez, Independent Expert Panel (Belém, PA, Brazil, 2009).

Sifton, Clifford, *Report of Commissioner for Treaty No. 8* (Government of Canada; Indigenous and Northern Affairs Canada, 1899).

Stevenson, Marc G, *Site C Clean Energy Project. Supplemental Traditional Land Use Report: Dene Tha' First Nation.*, Supplemental Traditional Land Use Report: Dene Tha' First Nation, by Marc G Stevenson, Supplemental Traditional Land Use Report: Dene Tha' First Nation Volume 5 Appendix A04 Part 6 (All Nations Services, 2013).

Talamayan, Fernan, *Mapping Anti-Dam Movements: The Politics of Water Reservoir Construction and Hydropower Development Projects in the Philippines* (Taiwan: International Centre for Cultural Studies, 2020).

Truth and Reconciliation Commission of Canada, *Honouring the Truth, Reconciling for the Future. Summary of the Final Report of the Truth and Reconciliation Commission of Canada*, by Truth and Reconciliation Commission of Canada (Winnipeg, Canada, 2015).

UNESCO, *Analysis and Conclusion by World Heritage Centre and the Advisory Bodies in 2015 - Wood Buffalo National Park (Canada) (N 256)*.

Yellowhead Institute, *Land Back: A Yellowhead Institute Red Paper*, by Yellowhead Institute (2019).

Warford, Jeremy & Zeinab Partow, *The World Bank and the environment: first annual report, fiscal 1990*, by Jeremy Warford & Zeinab Partow, documents.worldbank.org, 9064 (Washington, D.C: The World Bank Group, 1990).

West Moberly First Nation, *Amended Notice of Civil Claim in the Supreme Court of British Columbia* (Vancouver Registry, 2019).

Willson, Rolland & Bruce R Muir, “Neither ‘Subject To, Or Inferior To, The Crown’s Right’ To Sustainability”. *Indigenous Rights and Improving the Quality of Environmental Assessments in Canada* (Ottawa, Ontario, 2018).

World Bank, *Environmental and Social Standards (ESS)*, by World Bank (World Bank, 2017).

———, *Licenciamento Ambiental de Empreendimentos Hidrelétricos no Brasil: Uma Contribuição para o Debate. (Em Três Volumes) Volume I: Relatório Síntese*, by World Bank, 40995-BR (Brasilia, Brazil: World Bank, 2008).

World Commission on Dams, *World Commission on Dams Final Report. A New Framework for Decision-Making*, by World Commission on Dams (London; Sterling, VA: World Commission on Dams, 2000).

World Commission on Environment and Development, *Brundtland Report*, by World Commission on Environment and Development (Oslo: United Nations, 1987).

SECONDARY MATERIALS: WEBSITES

Admbaniwa, “A relação dos povos indígenas com a terra”, (5 April 2017), *Blog do Povo Baniwa* (blog), online: <<https://walimanai.wordpress.com/2017/04/05/a-relacao-dos-povos-indigenas-com-a-terra/>>.

Amnesty International, “Site C Dam - Human Rights at Risk”, (22 July 2015), *Amnesty International Canada* (website), online: <<https://www.amnesty.ca/our-work/issues/indigenous-peoples/indigenous-peoples-canada/resource-development-canada/site-c-dam>>.

Amazon Watch, “A Message from Pandora”, *Amazon Watch* (video), online: <<https://messagefrompandora.org/>>.

———, “IACHR Opens Case Against Brazil for Human Rights Violations Related to Belo Monte Dam”, (7 January 2016), *Amazon Watch* (blog), online: <<http://amazonwatch.org/news/2016/0107-iachr-opens-case-against-brazil-for-human-rights-violations-related-to-belo-monte-dam>>.

APIB, “Nota de repúdio contra a declaração de Bolsonaro na ONU”, *APIB* (blog), online: <<http://apib.info/2019/09/24/nota-de-repudio-contr-a-declaracao-de-bolsonaro-na-onu/>>.

BC Hydro, “First Nations gallery at Bennett Dam ‘a chance to heal’”, (4 July 2016), *BC Hydro* (blog), online: <<https://www.bchydro.com/news/conservation/2016/bennett-first-nations-gallery.html>>.

———, “Province announces Site C Clean Energy Project”, (19 April 2010), *BC Hydro* (blog), online:

<https://www.bchydro.com/news/press_centre/news_releases/2010/province_announces_site_c_clean_energy_project.html>.

———, “Williston Reservoir”, *BC Hydro* (website), online:

<https://www.bchydro.com/community/recreation_areas/williston.html>.

British Columbia, “A New Path Forward”, (2019), *British Columbia* (website), online:

<<https://declaration.gov.bc.ca/>>.

British Columbia, *Strategic Land and Resource Planning Agreement* (2009), *British Columbia* (website), online: <<https://www2.gov.bc.ca/gov/content/environment/natural-resource-stewardship/consulting-with-first-nations/first-nations-negotiations/first-nations-a-z-listing/prophet-river-first-nation-denetsaa-tse-k-nai>>.

Canadian Impact Assessment Agency, “Basics of Environmental Assessment”, (13 July 2012), *Canadian Impact Assessment Agency* (website), online:

<<https://www.canada.ca/en/impact-assessment-agency/services/environmental-assessments/basics-environmental-assessment.html#panel01>>.

Conselho Indigenista Missionário, “Os povos indígenas do Xingu e a hidrelétrica Belo Monte”, (27 June 2008), *CIMI* (website), online: <<https://cimi.org.br/2008/06/27578/>>.

Department of Justice Government of Canada, “Principles respecting the Government of Canada’s relationship with Indigenous peoples”, (14 July 2017), *Department of Justice of Canada* (website), online: <<https://www.justice.gc.ca/eng/csj-sjc/principles-principes.html>>.

Eletrobrás Brasil, “Áreas de Atuação”, *Eletrobrás* (website), online:

<<http://eletrobras.com/pt/Paginas/Areas-de-Atuacao.aspx>>.

Fearnside, Philip, “Justica ambiental e barragens amazonicas”, (10 September 2019), *Amazonia Real* (blog), online: <<https://amazoniareal.com.br/justica-ambiental-e-barragens-amazonicas-13-reformas-necessarias/>>.

Pynn, Larry, the Vancouver Sun, “First Nations split over BC Hydro’s Site C dam megaproject”, (8 December 2013), *First Nations in BC Knowledge Network* (blog), online: <<https://fnbc.info/news/first-nations-split-over-bc-hydros-site-c-dam-megaproject>>.

FUNAI, “Nota da Funai sobre a UHE Belo Monte”, (5 July 2012), *Fundação Nacional do Índio* (blog), online: <<http://www.funai.gov.br/index.php/comunicacao/notas/2334-nota-da-funai-sobre-a-uhe-belo-monte>>.

Government of British Columbia, “Provincial Agricultural Land Commission”, BC Government (website), online: <<https://www.alc.gov.bc.ca/alc/content/home>>.

IBAMA, “Processo de Licenciamento”, *IBAMA* (website), online: <<http://www.ibama.gov.br/empreendimentos-e-projetos/licenciamento-ambiental-processo-de-licenciamento>>.

Interamerican Association for Environmental Defense (AIDA), “Holding Brazil accountable for the Belo Monte Dam”, (6 July 2011), *Interamerican Association for Environmental Defense (AIDA)* (blog), online: <<https://aida-americas.org/en/holding-brazil-accountable-belo-monte-dam>>.

———, “Inter-American Commission urges Brazil to address damages to indigenous peoples caused by Belo Monte Dam”, (13 November 2018), *Interamerican Association for Environmental Defense (AIDA)* (blog), online: <<https://aida-americas.org/en/press/inter-american-commission-urges-brazil-address-damages-to-indigenous-peoples-caused-by-belo-monte>>.

International Rivers, “Damming Statistics”, (22 October 2007), *International Rivers* (website), online: <<https://www.internationalrivers.org/damming-statistics>>.

———, “Questions and Answers About Large Dams”, *International Rivers* (website), online: <<https://www.internationalrivers.org/questions-and-answers-about-large-dams>>.

———, “The State of the World’s Rivers. Mapping the Health of the World’s Fifty Major River Basins”, (26 August 2014), *International Rivers* (website), online: <<https://www.internationalrivers.org/sites/default/files/worldsrivers/>>.

ISA - Instituto Socioambiental, “Parlamentares pedem devolução de projeto contra Terras Indígenas; Maia promete analisar”, (13 February 2020), *ISA - Instituto Socioambiental* (blog), online: <<https://www.socioambiental.org/pt-br/noticias-socioambientais/parlamentares-pedem-devolucao-de-projeto-contras-terras-indigenas-maia-promete-analisar>>.

ISA - Instituto Socioambiental, “Organizações da sociedade civil criticam duramente o projeto de Lei Geral de Licenciamento”, (12 August 2019), *ISA - Instituto Socioambiental* (blog), online: <<https://www.socioambiental.org/pt-br/noticias-socioambientais/organizacoes-da-sociedade-civil-criticam-duramente-o-projeto-de-lei-geral-de-licenciamento>>.

“Keep the Peace Blog”, *Keep the Peace Blog* (blog), online: <<https://keepingthepeace.wordpress.com/>>.

Energy BC, “Large Hydropower Generating Stations in B.C.”, (2016), *Energy BC* (website), online: <<http://www.energybc.ca/largehydro.html>>.

Mikisew Cree First Nation, “Community-based monitoring programs”, *Mikisew Cree First Nation* (website), online: <<http://mikisewgir.com/cbm>>.

———, “Unesco”, (3 July 2019), *Mikisew Cree First Nation* (website), online: <<http://mikisewgir.com/projects>>.

Ministério do Planejamento Brasil, “Sobre o PAC - PAC”, *Ministério do Planejamento* (website), online: <<http://www.pac.gov.br/sobre-o-pac>>.

Ministério Público Federal, “Caso Belo Monte”, *MPF* (website), online: <<http://www.mpf.mp.br/pa/sala-de-imprensa/documentos/2017/caso-belo-monte>>.

———, “Sobre o MPF”, *MPF* (website), online: <<http://www.mpf.mp.br/o-mpf/sobre-o-mpf>>.

Norte Energia, “Programa de Comunicação Indígena UHE Belo Monte. Boletim Informativo” (2011), *Norte Energia* (blog), online: <http://restrito.norteenergiasa.com.br/site/wp-content/uploads/2013/01/Boletim2_Plano-emergencial_Novembro2011_WEB.pdf>.

Office of the Premier, “Government will complete Site C construction, will not burden taxpayers or BC Hydro customers with previous government’s debt”, (11 December 2017), BC Government (blog), online: <<https://news.gov.bc.ca/releases/2017PREM0135-002039>>.

Sierra Club, “Site C dam”, *Sierra Club BC* (website), online: <<https://sierraclub.bc.ca/campaigns/site-c/>>.

Site C: Statement by Concerned Scholars, (blog) online: <<https://sitecstatement.wordpress.com/home-2/>>.

Team Reconcili-Action YEG, “Case Briefs: R v Badger”, (9 October 2018), *University of Alberta Faculty of Law Blog* (blog), online: <<https://ualbertalaw.typepad.com/faculty/2018/10/case-briefs-r-v-badger.html>>.

The Global Atlas of Environmental Justice, “EJAtlas | Mapping Environmental Justice”, (2020), *EJAtlas* (website), online: <<https://ejatlas.org/>>.

Vilela, Pedro Rafael, “Brazil unveils world’s fourth biggest hydropower plant”, (28 November 2019), *Agência Brasil* (blog), online: <<https://agenciabrasil.ebc.com.br/en/politica/noticia/2019-11/brazil-unveils-worlds-fourth-biggest-hydropower-plant>>.

Warrior Publications, “Site C / Treaty 8 Stewards of the Land Hanger Strikes Continue with Women’s Fast Today”, (4 March 2016), *Warrior Publications* (blog), online: <<https://warriorpublications.wordpress.com/2016/03/04/site-ctreaty-8-stewards-of-the-land-hunger-strikes-continue-with-womens-fast-today/>>.

Wilcockson, Steve, “Deja Vu - Brumadinho and Mariana Dam Disasters”, (16 April 2019), *Geospatial Insight* (blog), online: <<https://info.geospatial-insight.com/blog/brumadinho-and-mariana-dam-disasters>>.

Appendix A: Glossary*

Environmental decision-making: the process through which a government decides whether to grant permission for a natural resource development proposal or any project that affects the natural and human environment.

Environmental Impact Assessment (EIA): a procedural framework for environmental and natural resources decision-making about specific development projects with significant adverse effects on the environment. The process is designed to determine the need for and consequences of a proposed project; assess alternatives that may have fewer adverse effects; define mitigation measures that reduce the impacts, and provide the basis for justifying or refusing a project. Also referred to as a ‘project review’ or impact assessment.

Natural resource development: Any project that aims to use natural resource, including water, for a specific profitable purpose, such as energy production.

Belo Monte Dam: the hydroelectric project is a combination of the Belo Monte hydropower plants and reservoirs, canals, transmission lines, located in the Xingu River Watershed, in Pará state, in the Amazon region of Brazil.

Site C Dam: the hydroelectric project is a combination of the Site C hydropower plant, reservoir, and transmission lines, located in the Peace River Watershed, in Northern British Columbia, Canada.

Free, Prior, and Informed Consent (FPIC): Indigenous nations’ authorization to natural resource development proposals in traditional territories. The view of this research project is that FPIC is based on Indigenous nations’ traditions, laws, and systems of governance, in an equal basis relationship with the state and industry, and not one a single opportunity to express their concerns.

Indigenous nation: a group of Indigenous people, with a self-governing system, and who has historically occupied a certain traditional territory.

Indigenous community: a group of Indigenous people that share the same social and cultural background and may form an Indigenous nation.

First Nations: self-governing Indigenous nations that has historically occupied the lands of what is known today as Canada, with exclusion of the Inuit and Métis people.

World Commission on Dams (WCD): established in 2000 to review the development effectiveness of large dams and assess alternatives for water resources and energy development. The Commission has also developed internationally acceptable criteria, guidelines and standards for the planning, design, appraisal, construction, operation, monitoring and decommissioning of dams.

State: a nation, formed by a people and a territory, with an organized political government established by colonial/settlers’ institutions.

Colonial government: the government of a state formed through colonization by settler institutions.

Traditional/Indigenous territories/lands: the lands historically and traditionally occupied by Indigenous people

* The terms are listed according to the order in which they appear in the dissertation.

‘Indian’ Reserves: The areas of state property and legally assigned for Indigenous peoples to occupy. Reserves do not necessarily match traditional territories and are usually significantly smaller.

Indigenous Lifeways/ Ways of life: A body of traditional practices of living from and with the land, waters, animals, in relationship of mutual care and informed by diverse Indigenous cosmovisions present across the world.

Mitigation measures: measures to reduce or offset the environmental adverse effects of a specific natural resource development project.

Compensation measures: measures to compensate the natural environment or affected communities for the adverse effects of a specific natural resource development project.

Infrastructure projects: construction of facilities to provide services, such as energy production.

Aboriginal rights: Indigenous rights that have been recognised and affirmed by the Constitution Act, 1982, s. 35 in Canada.

Treaty rights: in Canada, Indigenous rights established through historic or modern agreements between Indigenous peoples and the Crown, and recognised and affirmed by the Constitution Act, 1982, s. 35.

Indigenous rights: rights recognized through international documents, state constitutions, case law, treaties. These also include inherent rights, which are not necessarily recognised by the state but have been historically exercised by Indigenous people.

Hydropower projects: infrastructure projects designed for the generation of electricity through the damming of rivers and creation of reservoir.

Colonization: the historic process of settler European countries promoting the occupation of Indigenous lands and affirming their sovereignty on those lands through settler laws and institutions. Colonization also refers to the ongoing process of reaffirming the colonial state sovereignty over Indigenous peoples and their traditional lands to this date.

Self-determination: Indigenous people’s inherent right to self-govern their territories through their laws, traditions, and systems of governance.

Self-government agreements: negotiated agreements between the state of Canada and Indigenous people to ensure decision-making power to Indigenous governments to shape and deliver programs and services to their communities, including the management of their own lands. The agreements take different forms based on the different historical, cultural, political and economic circumstances of the Indigenous governments, regions and communities involved. They may recognise Indigenous law-making authority in areas such as governance, social and economic development, education, health, lands and more.

Land Claims: formal and legal requests by Indigenous peoples to have self-government agreements signed with the Crown of Canada.

Disparate adverse effects: environmental effects experienced by marginalized people by differing environmental quality and lack of access to natural resources, partially due to systemic discrimination based on factors such as race, class, or gender.

Significant adverse effects: the negative impacts caused by a specific project or activity, triggering an environmental assessment process.

National Environmental Protection Agency (EPA): The United States of America Agency to implement federal environmental policies.

Organization for Economic Cooperation and Development (OECD): International organization to support governments, policy makers and citizens in establishing evidence-

based international standards and finding solutions to a range of social, economic and environmental challenges.

United Nations Environment Programme (UNEP): the international body that sets global environmental agenda, promotes implementation of the environmental dimension of sustainable development within the United Nations system, and serves as an advocate for the global environment.

World Bank: the international financial organization that provides funding for economic development for countries to fight extreme poverty.

International Finance Corporation (IFC): The World Bank Group's entity with a mandate to invest in private sector projects in developing member countries.

Environmental Assessment Operational Directive (EAOD): a policy by the International Finance Corporation on environmental assessment in countries that have been supported by the World Bank group.

Strategic Environmental Assessments (SEA): evaluation of environmental effects of government's policy, plans and program proposals.

Cumulative Impact Assessment: changes to the environment that are caused by a specific project in combination with other past, present and future human actions.

Public participation: opportunities throughout the impact assessment process for the engagement of members of the public. Each project review will define differently who the interested parties that may participate are. Public participation may happen through meetings with citizens, the government agency, and proponent, as well as through written submissions.

Consultation: opportunities for Indigenous peoples to engage in the decision-making of specific projects that affect them. In Brazil and Canada, the states have the constitutional obligation to consult with Indigenous people before approving a development/natural resource project that affects their lives and/or territories.

The Crown: the entity that represents the state and the federal government of Canada

United Nations Declaration on the Rights of Indigenous People (UNDRIP): the international instrument establishes a universal framework of minimum standards for the survival, dignity and well-being of the indigenous peoples and it elaborates on existing human rights standards.

Organization of American States (OAS): an international regional organization formed by 35 nation-states of the Americas, constituting a juridical, political, and social governmental forum. Its four pillars are democracy, human rights, security, and development.

The Inter-American System of Human Rights (IASHR): a regional human rights system responsible for monitoring, promoting, and protecting human rights in the 35 independent countries of the Americas that are members of the Organization of American States (OAS). The system is composed by the Inter-American Commission (IACHR) and the Inter-American Court of Human Rights (IACtHR). Both bodies can decide individual complaints concerning alleged human rights violations and may issue emergency protective measures when an individual or the subject of a complaint is in immediate risk of irreparable harm.

Executive Order: a United States of America presidential decree to regulate a specific matter, particularly related to the administration of the executive branches of the country

Geographic Information System (GIS): computer system for capturing, storing, checking, and displaying data related to positions on Earth's surface.

Arctic Council: an intergovernmental forum established in 1996 to promote cooperation, coordination and interaction among the Arctic States, Arctic Indigenous peoples, and other Arctic inhabitants on common Arctic issues, particularly for the sustainable development and environmental protection in the Arctic region.

Government-to-government/nation-to-nation relationship: A mutual approach between the colonial and Indigenous governments, acknowledging each other's political authority and, potentially entering into agreements about specific matters, including issues related to Indigenous traditional territories.

Volta Grande do Xingu: Xingu River bend, the River stretch where Belo Monte is located.

Banco Nacional do Desenvolvimento (BNDES): the Brazilian National Bank for Development.

Conselho Indigenista Missionário (CIMI): Catholic organization under the National Council of the Bishops in Brazil. It was created in 1972 and has been supporting Indigenous people's rights with a progressive and libertarian approach.

Programa de Aceleração do Crescimento (PAC): Program for Acceleration of Growth – A Brazilian national policy implemented in the early 2000s to foster economic growth in the country.

Eletrobrás: the Brazilian national state company for energy production.

Norte Energia: the consortium formed by the state company Eletrobrás and by the private companies Camargo Correa, Andrade Gutierrez, and Odebrecht for the construction and operation of the Belo Monte dam.

Ribeirinhos: in Brazil, traditional people that live on the banks of the rivers and live mostly from small-scale agriculture and fishery. Ribeirinho communities are formed by non-Indigenous and Indigenous people that have moved out of reserves.

Fundação Nacional do Índio (FUNAI): the national agency in Brazil responsible for overseeing and implementing all policies related to Indigenous peoples and their rights.

Médio Xingu: The stretch of the Xingu River where Belo Monte was constructed. The Xingu Watershed is geographically divided into three parts for the purposes of characterizing the area: Alto Xingu, in the state Mato Grosso, southern of Pará, where the headwaters of the River are located; Médio Xingu, the Middle part of the River; and Baixo Xingu, located in the northern part of Pará, from the River bend until it reaches the Rio Amazonas.

Union: represents the state and the federal government of Brazil.

Lei da Política Nacional de Meio Ambiente (PNMA): The Brazilian Federal Law on National Policies for the Environment is the overarching law on environmental matters in Brazil. The law establishes the necessary regime for the application of environmental policies, including basic concepts, objectives, principles, guidelines, policy instruments, and responsible authorities.

Sistema Nacional de Meio Ambiente (SISNAMA): The National Environmental System encompasses a number of institutions responsible for the fulfillment of the PNMA's objectives.

Conselho Nacional do Meio Ambiente (CONAMA): a Brazilian national advisory and deliberative Council with the purpose of assisting, researching, and proposing to the

government, guidelines for public policies in environment and natural resources, and to deliberate, within its authority, about norms and standards consistent with an environment ecologically balanced and essential to a healthy quality of life.

Instituto Brasileiro do Meio Ambiente e dos Recursos Naturais Renováveis (IBAMA):

The National Institute of Environment and Renewable Natural Resources. It is the executive body under the Ministry of Environment responsible for the environmental and natural resource decision-making on projects with significant environmental adverse effects of national or regional (more than one state) scale.

Decreto: A type of regulation enacted by the executive or legislative power of Brazil to regulate specific statutes.

Resolução and Instrução Normativa: Types of regulation enacted by a Brazilian Executive Branch, such as the CONAMA and IBAMA, that regulate the legislation enacted by the National Congress.

Licenciamento socio-ambiental: environmental decision-making process. The environmental decision-making process for infrastructure projects in Brazil involves three main stages: Preliminary licence, installation licence, and operation licence. In all those stages the project proponent must comply with a series of conditions in order to be able to move on to the next stage

Avaliação de Impacto Ambiental: corresponds to the process of impact assessment in the Canadian regime.

Estudos de Impacto Ambiental: corresponds to the Environmental Impact Assessment report containing the findings from the review of a project.

Relatório de Impacto Ambiental: Summary of the environmental impact assessment report forming the environmental and social impact statement (ESIS).

Land Demarcation: the act by the Brazilian government that defines the limits of an Indigenous territory, based on specialized studies to identify the area and their natural boundaries, through cartographic and historical documents. Demarcation forms the Indigenous reserves, which do not necessarily correspond to the Indigenous traditional territories historically occupied by those communities.

ILO Convention 169: The International Labour Organization Convention on Indigenous and Tribal Peoples Convention. It establishes the rules and standards for Indigenous peoples' participation in natural resource decision-making that occur in Indigenous lands.

Plano Básico Ambiental (PBA): Basic Environmental Plan is a document, required by Brazilian law, that contains all the environmental conditions and mitigation measures to which the proponent has committed in order to be authorized to develop a natural resource project with significant adverse effects, including hydro dams.

Plano de Compensação Ambiental (PCA): Environmental Compensation Plan is the document, a requirement by the Brazilian law, that contains all the social and ecological measures to compensate for the impacts of a project.

Plano de Recuperação de Áreas Degradadas (PRAD): Plan for Restoration of Degraded Areas is a requirement by the Brazilian law, for proponents to restore the areas that were devastated by a specific project.

Plano Básico Ambiental Componente Indígena (PBACI): Basic Environmental Plan Indigenous Component is an addition to the Basic Environmental Plan, establishing mitigation and compensation measures specifically related to environmental and social impacts on Indigenous peoples and their traditional territories.

Plano Emergencial do PBACI (Emergency Plan): A temporary measure, while the PBACI had not yet been implemented, to provide Indigenous communities affected by the Belo Monte dam with commodities such as food, clothes, boats, and fuel, between the years 2010 and 2012. Each Indigenous organization representing a community was entitled to receive R\$ 30,000 (approximately CAN\$ 10,000) per month in commodities.

Ministério Público: a Brazilian state institution, constituted by the States and the Union Prosecution Services, formed by public interest lawyers. The Prosecution services are responsible for protecting diffuse rights (which are indivisible and of indeterminate persons, such as the right to an ecologically healthy environment) and collective interests (which are divisible and of determinate persons, such as children, elderly people, and traditional ethnic groups).

Ministério Público Federal: the Brazilian Federal Prosecution Service is part of the Union Prosecution Services. It is responsible for defending Indigenous rights, before federal judges, federal courts, and the Supreme Court. Prosecutors can also act preventively, outside the judiciary, by issuing recommendations, participating in public meetings, and proposing plea bargain agreements.

Plea bargain agreements: These are known in Brazilian law as *Termos de Ajuste de Conduta* (TAC), through which wrongdoers assume responsibility for the results of their actions and commit to compensate or mitigate the damages.

Plan to Protect Indigenous Territories: the plan is part of the measures that form the PBACI. The purpose of the plan is to prevent the illegal occupation of Indigenous territories and to ensure the removal of present squatters.

Indigenous Management Committee (CGI): a forum that FUNAI and Norte Energia created, through the Belo Monte decision-making process, with Indigenous participation for the implementation of the PBACI.

BC Hydro: British Columbia Crown Corporation for the provision of energy to the province.

British Columbia Utilities Commission (BCUC): an independent agency of the government of British Columbia responsible for regulating the province's energy utilities.

Certificate of public convenience and necessity: the British Columbia Utilities Commission Act, 1996, determines at S. 45(8) that "The commission must not give its approval unless it determines that the privilege, concession or franchise proposed is necessary for the public convenience and properly conserves the public interest." The certificate attests that a certain energy project is required and in the public interest of consumers.

Wood Buffalo National Park: the largest park in Canada, located in the Northeast Alberta. It was created in 1922 and in 1983 became a UNESCO World Heritage Site. The park contains the Peace Athabasca Delta, with great ecological diversity, which is of special relevance to a number of First Nations.

Treaty Commissioner to the Crown: official of the Crown designated to intermediate historic agreements with Indigenous peoples and establish the interests of the Crown in colonizing the region of what is known today as Canada.

Standing Committee on the Environment and Sustainable Development in the House of Commons: this body studies the programs and legislation of Environment Canada, Parks Canada and the Canadian Environmental Assessment Agency as well as reports of the Commissioner of the Environment and Sustainable Development.

Generation station: a power plant that produces electricity by using water to propel the turbines and then drive the generators.

Earthfill dam: compacting layers of earth, using impervious materials to block water from upstream river.

Reservoir: an open-air storage area where water is collected and kept in quantity so that it may be drawn off for use or energy generation.

Spillway: a passage for surplus water over or around a dam when the reservoir is full. Spillways are particularly important safety features to protect the dam and its foundation from erosion.

Transmission lines: the electricity lines that conduct the energy produced in the generation station to other stations.

Joint expert review panel: a panel of independent experts nominated by the federal and provincial governments to examine and to hold a public hearing on a proposed project. This research's recommendations also refer to joint review panels, potentially formed by Indigenous and colonial government's representatives for the assessment of projects with impacts on Indigenous peoples' traditional territories.

Agricultural Land Reserves (ALR): a provincial zone, in British Columbia, in which agriculture is recognized as the priority use. Farming is encouraged and non-agricultural uses are restricted.

Agricultural Land Commission (ALC): a British Columbia independent administrative tribunal comprised of appointed commissioners that are responsible for administering the ALC Act.

Peace, Order and Good Government of Canada: the legal doctrine through which the federal parliament may legislate based on residual power over matters that were not assigned to the exclusive jurisdiction of either level of government.

Fiduciary Duty: The Crown's obligation to negotiate in good faith with Indigenous peoples. But concrete circumstances of each case will determine the extent of the duty. The fiduciary duty is applicable when considering that the power of the Crown is assumed to dominate.

Natural Resources Transfer Agreement NRTA: the agreement transferred responsibility for game laws from the federal government to the provincial governments. In doing so, it also conferred the power to apply conservation laws to status 'Indians' in order to protect game and fish supplies. The NRTA does not apply to the British Columbian provincial territory.

British Columbia Environmental Assessment Office (BCEAO): the provincial regulatory agency responsible for managing environmental assessment of projects with significant adverse effects under the provincial jurisdiction.

Canadian Environmental Assessment Agency (CEAA): the federal regulatory agency responsible for managing impact assessment of projects with significant adverse effects under the federal jurisdiction. In 2019 the agency was renamed to Impact Assessment Agency (IAA).

National Energy Board (NEB): a Canadian federal institution responsible for reviewing energy development projects, including pipelines, and enforcing safety and environmental standards. In 2019, the Board has been renamed to National Energy Regulator (NER).

Canadian Nuclear Safety Commission (CNSC): the federal regulator of nuclear power and materials in Canada.

Valued components (VCs): the environmental biophysical or human features that may be impacted by a development project and that should be examined through an impact assessment.

Governor-in-Council (GIC): Governor General acting on advice given by the federal Cabinet – the Privy Council’s operative branch. In an environmental decision-making about an infrastructure project, the GIC determines whether the adverse effects within federal jurisdiction and the adverse direct or incidental effects are in the public interest, and whether the Crown duty to consult and accommodate Indigenous peoples has been fulfilled.

Environmental Impact Statement (EIS): a document produced by the project proponent that describes the impacts on the environment as a result of their proposed action. It also describes impacts of alternatives and mitigation measures.

Traditional Land Use Studies (TLUS): these studies are part of an environmental assessment of a specific project with impacts on the traditional use of lands by Indigenous people. The studies evaluate the current use of lands and resources for traditional purposes and the exercise of Treaty rights.

Impact Benefit Agreements (IBA): Bilateral private negotiations between private industries and potentially affected Indigenous nations to accommodate those nations’ interests regarding a specific natural resource project.

Peace Athabasca Delta (PAD): located in the Wood Buffalo National Park, in Alberta, Canada. The largest freshwater inland river delta in North America. The encounter of the Peace and the Athabasca Rivers.

UNESCO: United Nations Educational, Scientific and Cultural Organization. It has the mission to build peace through international cooperation in Education, the Sciences and Culture.

Local Assessment Area (LAA): It is the maximum area within which an environmental assessment can accurately predict the impacts of a specific project. The LAA includes the project development area (PDA), which is the most basic and immediate area of a project.

Regional Environmental Assessment (REA): the review of the environmental impacts of a project in the area within which the project’s environmental effects may overlap or accumulate with the environmental effects of other projects or activities that have been or will be carried out.

Collaborative Management Agreements: agreements between colonial and Indigenous governments for a joint purpose, such as planning, management and use of specific areas within the traditional territory of an Indigenous nation.

Interlocutory injunction: a court order to compel or prevent a party from doing certain acts pending the final determination of the case. It is an order made at an interim stage during the trial, and is usually issued to maintain the status quo until judgment can be made.

Seasonal rounds: the means by which an Indigenous nation manages their territory, based on traditional knowledge of the land, waters, wildlife, and fish, adapting their practices to conserve resources for future generations.

LNG: Liquefied Natural Gas and its industry sector.

UN World Heritage Centre: Secretariat to the 1972 Convention Concerning the Protection of the World Cultural and Natural Heritage, located at UNESCO Headquarters.

UN Commission against Racial Discrimination: The United Nations body of independent experts that monitors implementation of the Convention on the Elimination of All Forms of Racial Discrimination by its State parties.