

Indigenous Biocentric Law Against a Legacy of Violence: Chilean Water Regulation, Free Trade
with the EU, and Violations of Mapuche and Aymara Rights to Water

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Abstract

Assertions of Mapuche and Aymara law in defence of waters are hampered by a legacy of state violence, and continued appropriation of Indigenous worldviews under commodified conceptions of nature. I interrogate and analyze the connection between Chile's water market regime, natural resource extraction, water scarcity, and free trade and foreign investment. Chile's *Water Code* facilitates water-intensive agribusiness, mineral extraction, and salmon aquaculture as part of export-oriented economy. At the same time, free trade agreements signed with EU countries knowingly encourage overextraction of water and natural resources.

I argue in favour of grassroots movements toward land restitution and jurisdiction as solution. I aim to show international human rights litigation and the concept of virtual water as legal means to hold Chile and major EU importing states responsible for environmental harm, and violation of Mapuche and Aymara peoples' right to water including ancestral and cultural uses.

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0) Prologue

I write this in hopes the reader can see where I'm coming from. As a non-Indigenous person, I came to law school with the intention of studying Indigenous legal orders. It was only in preparation, and through the guidance of some caring Professors, that I positioned myself in the history of the land I grew up on. My movement from studying psychology to philosophy to law, and the tone my writings took through the years, were the product of honestly asking myself who I was and where I was from. The personal became the philosophical, and now becomes the political (as they say, or so I've been told).

I believe the intergenerational solutions are out there in the world's structures, beyond the illusions of one's own personal history. My mother migrated here from the Philippines, and my father comes from a line of French/British settlers. Yet, "Truth is Out There".¹ As a male Filipino-white scholar growing up in a middle-class family, working and living in Tkaronto and the Haldimand Tract, I continue to benefit on lands stolen from the Haudenosaunee, reflecting on my place in it all.²

¹ Talks at Google, "Violence | Slavoj Žižek | Talks at Google" (3 October 2008) at 26:40 – 34:28, online (video): <[www.youtube.com](https://www.youtube.com/watch?v=x0eyNkNpL0?t=1600)> [https://youtu.be/_x0eyNkNpL0?t=1600]; On the "dialectic of trauma": "The conflict between the will to deny horrible events and the will to proclaim them aloud is the central dialectic of psychological trauma. People who have survived atrocities often tell their stories in a highly emotional, contradictory, and fragmented manner which undermines their credibility and thereby serves the twin imperatives of truth-telling and secrecy... The dialectic of trauma gives rise to complicated, sometimes uncanny alterations of consciousness...": Judith Herman, *Trauma and Recovery: The Aftermath of Violence – From Domestic Abuse to Political Terror* (Basic Books, 2015) at 1; "Neurosis addles the brains of every philosopher because he is at odds with himself. His philosophy is then nothing but a systemized struggle with his own uncertainty... I hate to see so many young minds infected by Heidegger": C. G. Jung, *C.G. Jung Letters, Volume 1* (Princeton University Press, 1973) at 332; See Jonathan Simard, *Psychological and Phenomenological Perspectives on the Hard Problem of Consciousness* (MA Philosophy, University of Waterloo, 2017), online (pdf): <<https://uwspace.uwaterloo.ca/handle/10012/11210>>.

² Amar Bhatia & Joseph Jonathan Simard, "Migration and Inter-National Economic Laws that do not Erase Colonialism" (25 February 2022), online: *AfronomicsLaw* <<https://www.afronomicslaw.org/category/analysis/symposium-reconceptualizing-iel-migration-migration-and-inter-national-economic>>.

I am searching for ways of relating to each other and the environment that do not depend on scaffolds of domination, manipulation, and assimilation cloaked as benevolence.³ It turns out, people who dominate their environment, also dominate its people.⁴ Unfortunately, in my experience with legal education, these are interconnected parts of the same system.⁵ As such: “All My Relations”.⁶

The struggle for water and climate justice is global, as all living beings on earth enter an era of “global boiling”.⁷ This thesis investigates the state of Chile as one of the first privatized, export-oriented “laboratories” influenced by globalization and free-market policy.⁸ It is a telling example concerning wealthy nations’ impetuous appetite for foreign natural resources, who influence foreign domestic policy, and knowingly drive widespread damage and water scarcity for global South neighbours. As the two largest populations of Indigenous inhabitants in Chile,

³ Herman quoting Salman Rushdie’s novel, *Shame* (before “Acknowledgements” section): “Repression is a seamless garment; a society which is authoritarian in its social and sexual codes, which crushes its women beneath the intolerable burdens of honour and propriety, breeds repression of other kinds as well. Contrariwise: dictators are always – or at least in public, on other people’s behalf – puritanical. So it turns out that my “male” and “female” plots are the same story after all”. This is not to deny the disproportionate burden of trauma on women or racialized peoples, as Herman makes clear. Rather, Herman’s book is about “commonalities” among what should be irreconcilable differences, e.g., “between the survivors of vast concentration camps created by tyrants who rule nations and the survivors of small, hidden concentration camps created by tyrants who rule their homes”: Herman, at 3.

⁴ Moses A. Dirk, “Conceptual blockages and definitional dilemmas in the ‘racial century’: genocides of indigenous peoples and the Holocaust” (2002) 36:4 *Patterns of Prejudice* 7; Moses A. Dirk, “Toward a Theory of Critical Genocide Studies” (18 April 2008), online: *SciencesPo* <<https://www.sciencespo.fr/mass-violence-war-massacre-resistance/fr/document/toward-theory-critical-genocide-studies.html>>; Martin Crook & Damien Short, “Developmentalism and the Genocide-Ecocide Nexus” (2021) 23:2 *Journal of Genocide Research* 162.

⁵ Julia Dehm, Carmen Gonzalez, & Usha Natarajan, “Meltdown! International Law Praxis During Socio-Ecological Crises” (9 September 2021), online: *TWAILR* <<https://twailr.com/meltdown-international-law-praxis-during-socio-ecological-crises/>>.

⁶ Regna Darnell, “Reconciliation, Resurgence, and Revitalization: Collaborative Research Protocols with Contemporary First Nations Communities” in Michael Asch, John Borrows, James Tully, eds, *Resurgence and Reconciliation: Indigenous-Settler Relations and Earth Teachings* (University of Toronto Press, 2018) 229 at 229, 239-41.

⁷ UN, “Hottest July ever signals ‘era of global boiling has arrived’ says UN chief” (27 July 2023), online: *United Nations* <<https://news.un.org/en/story/2023/07/1139162>>.

⁸ See Jessica Whyte, “Neoliberal Economists Like Milton Friedman Cheered on Augusto Pinochet’s Dictatorship” (11 September 2023), online: *Jacobin* <<https://jacobin.com/2023/09/neoliberalism-human-rights-democracy-dictatorship-chile-chicago-hayek-friedman-pinochet/>>.

Mapuche and Aymara laws offer an alternative to the current legally inscribed facilitation of this catastrophe in Chile.⁹

My choice to engage with Mapuche and Aymara laws, among the 12 recognized Indigenous peoples in Chile, stems from identifying a body of scholarly and written dialogue across English, Spanish, and Mapuche and Aymara languages. At the same time, necessary connection to English arises from my limited Spanish-speaking and reading-comprehension abilities, with respect to relevant literature in Spanish, and the diverse Indigenous languages of Chile.

The dialogue of Indigenous and non-Indigenous writers in Chile and the Americas, publishing and referencing across languages, made my access to this body of knowledge possible. The translations of *Mapuchezugun* and Aymara language stem from on-the-ground researchers writing in both English and Spanish.

1) Introduction/Overview

My method aims to interrogate and analyze the connection between Chile's private water market regime, natural resource extraction, water scarcity, and international trade. While Chile's *Water Code* can be understood as facilitating water-intensive agribusiness, mineral extraction, and salmon aquaculture for export, free trade agreements (FTAs) signed with EU countries encourage overextraction of water as part of Chile's export-reliant economy. This method ultimately aims to assess responsibility for violation of Mapuche and Aymara peoples' right to

⁹ See also Usha Natarajan & Julia Dehm, "Where is the Environment? Locating Nature in International Law" (30 August 2019) at 7-8, online (pdf): *TWAILR: Reflections* <<https://twailr.com/where-is-the-environment-locating-nature-in-international-law/>>.

water, including ancestral and cultural uses, by establishing causation by the Chilean state as well as EU states.

Assertions of Mapuche and Aymara law in defence of waters are hampered by a legacy of state violence and continued appropriation of Indigenous worldviews under commodified conceptions of nature. As such, this thesis takes a multifaceted lens towards domestic law, Aymara and Mapuche law, international trade law, and international human rights, to argue in favour of grassroots movements for land restitution and jurisdiction as a solution. In the end, I aim to show international human rights litigation and the concept of virtual water as important legal means to hold Chile and major EU importing states responsible for causing environmental harm and human rights violations.

In Chapter 2 and 3, I briefly outline Mapuche and Aymara peoples' way of life as informing legal relations to the environment. Indigenous communities in Chile claim territory non-conforming to state imposed boundaries. As well, Mapuche and Aymara communities interact with the environment through laws which function in relation to the health and stability of the environment. Indigenous law is embodied in practices of cultivation and animal herding for millennia through relationships of care and reciprocity. The result of Spanish colonization, and later privatization of water and natural resource regulation under military dictatorship, is continued dispossession of land and nation-wide water scarcity. As a legacy of violence against human and other beings, Chile's export-reliant economy depends on continued overextraction of natural resources, ignoring the environmental basis for legal relations with all beings.

In Chapter 4, I examine state regulation of water and natural resources. I firstly outline regulatory theory as a framework to understand Chile's regulatory governance regime. I then provide an overview of water, agriculture, mining, and fisheries/aquaculture regulation and its

functions. The regulatory structure of legislation works to expand natural resource extraction in mining, agribusiness, and aquaculture, in protecting industry rights to resources and limiting or excluding Indigenous participation. As a result, aquaculture's pollution of water bodies through salmon farming deteriorates the health and stability of marine ecosystems. As well, irrigation infrastructure, and associated mining and agriculture, over-extract water leading to impairment of ecosystems. This impairs Indigenous practices of subsistence agriculture and animal husbandry, in directly relying on nature as part of interconnected biocentric law.

In Chapter 5, I connect the influence of international economic law, Chile's export-reliant economy, and the related process of Indigenous disenfranchisement through domestic law. In relying on Sergio Puig's international Indigenous economic law framework, I explain state facilitation of political exclusion, discrimination, and economic inequality, through reregulation of water and natural resources aimed at supplying global North countries with minerals, food, and timber. Foreign investment and free trade are two primary means of knowingly facilitating overextraction and destruction of the environment, while excluding Indigenous legal orders.

In Chapter 6, I rely on Pooja Parmar's methodology of loss of meaning to explain the appropriation of Indigenous laws under political state discourses that serve to perpetuate commodified conceptions of nature. I supplement Parmar's methodology with the perspective of Mapuche and Aymara grassroots movements during state attempts to incorporate Indigenous worldviews. I look toward Bolivia's assimilation of Aymara cosmology, and its influence on ostensibly similar attempts during Chile's failed constituent process during 2021-22. Without Indigenous jurisdiction and land restitution, recognition only placates Indigenous resistance, and furthers resource extraction.

In Chapter 7, I interpret and apply international human rights in the Inter-American System and the European Court of Human Rights. I aim to show that the right to property and right to life may provide an effective remedy in the Inter-American system of Human Rights and the European Court of Human Rights respectively. However, I argue that a claim in the European Court of Human Rights may be more effective in understanding the connection between export and extraction through the concept of virtual water. Virtual water accounts for transboundary water flows in the form of natural resources, tracing water consumed in production. In understanding international trade and water extraction as forming an international virtual watercourse, with effective control by importing states, FTAs knowingly facilitate transboundary harm.

A claim against Chile for violation of the right to property includes access to natural resources on traditional territory, where overextraction drives water scarcity. Given the implementation gap in Chile for effective rights protection, a claim for violation of the right to life may be more effective in holding major importers like EU states responsible. By delineating language used in soft law principles and international watercourse legislation and adjudication, tracing transnational commodity flows and water used in production describes an international virtual watercourse. Overextraction of water as transboundary harm to an international watercourse may ground a claim for violation of the right to life.

While a novel claim, I ultimately argue that the concept of virtual water exposes the treatment of water as a mere resource, by linking productive water use to control over international trade flows. As such, commodity flows can be conceptualized as transnational watercourses, entailing obligations by neighbouring states to prevent transboundary harm facilitated through international trade.

2) Mapuche Peoples in Central and Southern Chile

The Mapuche (“people of the land”) are a group of Andean Indigenous peoples whose territory before the 17th century spanned the Aconcagua River north of Valparaíso, to Chiloé Island in the south. This territory encompassed *Wallmapu*, or “four lands”, in each cardinal direction, including parts of Argentina.¹⁰ The concentration of their population in central Chile was directly related to the area’s rich natural resources.¹¹ Central Chile is considered an international hotspot for biodiversity.¹²

Spaces of great biodiversity (*Itrofil Mongen*) indicate dense interconnections of life, denoted by spiritual beings called *newen*, *ngünen*, and *ngen*.¹³ For the Mapuche, land and waters are living beings, relatives to the basic unit of the community, the *lof*.¹⁵ To be Mapuche, community members must know and recognize their territory (*mapu*) because it is also considered part of their blood (*mulfun*).¹⁷ In the words of one *longko* (chief), “both the river and the *ngen-ko* [water spirit], as well as the springs, lagoons, lakes, seas, are our relatives. We are part of them”.¹⁸ The person (*che*) is inseparable from *mapu* in terms of identity, as a “non-hierarchical connection”.¹⁹

¹⁰ Magdalena Ugarte, “Walking and telling the territory: reclaiming Mapuche planning through storytelling and land-based methodologies” (2021) 6:4-6 Third World Thematics: A TWQ Journal 200 at 204.

¹¹ Leslie Ray, *Language of the Land: The Mapuche in Argentina and Chile* (International Work Group for Indigenous Affairs, 2007) at 34.

¹² Norman Myers et al, “Biodiversity hotspots for conservation priorities” (2000) 403 Nature 853 at 855-56.

¹³ Martín Cárdenas Llancaman, “Azmapu: Una Propuesta Normativa Mapuche/ Azmapu: A Mapuche Regulatory Proposal” (2019) 8 Administración Pública y Sociedad (APyS) 97 at 101.

¹⁵ Jaime Antimil Caniupán & Aldo Olate Vinet, “El Escenario Actual de la Lengua Mapuche en un Territorio: Estudio de Caso desde la Historia y la Sociolingüística/ The Current Scenario of the Mapuche Language in a Territory: A Case Study from History and Sociolinguistics” (2020) 72 Nueva Revista del Pacífico 116 at 123; Juana del Carmen Aigo et al, “Waterscapes in Wallmapu: Lessons from Mapuche Perspectives” (2022) 112:5 Geographical Review 622 at 625.

¹⁷ Ranjeeva Ranjan, Alexis Castillo, & Karla Morales, “Mapuche cosmovision and territorial rights: An interdisciplinary approach to understand the conflict of Wallmapu” (2021) 13:1 Rupkatha Journal of Interdisciplinary Studies in Humanities 1 at 6.

¹⁸ Robinson Torres et al, “Water Extractivism and Decolonial Struggles in Mapuche Territory, Chile” (2022) 15:1 Water Alternatives 150 at 166.

¹⁹ Llancaman, “Azmapu”, *supra* note 13 at 99.

Identification with a Mapuche community integrates concepts of *Lof Che* (social and cultural identity) and *Lof Mapu* (people of a territory).²⁰ Members of a community trace their lineage through kinship lines directly linked to territory and local wildlife. *Lofs* are organized along rivers on both sides of the Andes mountains in *Gulumapu* (Chile) and *Puelmapu* (Argentina), following river, spring, and lake flow trajectories.²¹ Family names characterize places and wildlife, granting the concept of *küga*, roughly translated as belonging and identity with a family history and location.²²

Mapuche subsistence practices form a dialogical relationship between plants, animals, waters, and humans.²³ The health of rural Mapuche communities depends on maintenance of temperate forest environments, where disruption affects all members of an ecological system.²⁴ For example, in the gardens of Pucura community, one resident notes, “This tree is my partner...He helps me take care of my vegetable garden”.²⁵ Subsistence farmers feel obligated to reciprocate the gifts of their garden, even the shade received from a tree.²⁶ Many of the seeds for grown vegetables are gifts from family or friends, where the garden becomes a living and changing community history.²⁷ Health and stability are embodied through generational practices on the land, articulating a community identity.²⁸ Community members understand the principle

²⁰ Rosamel Millaman Reinao, “Mapuche Disagreements with Development: A Critical Perspective from Local Spaces”, in Katharina Ruckstuhl et al, eds, *The Routledge Handbook of Indigenous Development* (Routledge, 2023) 288 at 294.

²¹ Aigo et al, *supra* note 15 at 625.

²² Ranjan et al, *supra* note 17 at 5.

²³ Juan Carlos Skewes et al, “La regeneración de los bosques: paisaje, practices y ontologías en el sur de Chile/ Recovery of the Forests: landscape, practices, and ontologies in southern Chile” (2020) 65 *Estudios Atacameños* 385 at 386.

²⁴ *Ibid* at 385; Marcela Castro Garrido & María Alarcón, “The Commoditization of Ecosystems within Chile’s Mapuche Territory: A Violation of the Human Right to Health” (2023) 25:1 *Health and Human Rights Journal* 95 at 98-9.

²⁵ Skewes et al, *supra* note 23 at 386.

²⁶ *Ibid* at 386.

²⁷ *Ibid*.

²⁸ Garrido & Alarcón, *supra* note 24 at 96-8.

of reciprocity (*kelluwün*) as a guide to prevent “concentration of power or information in one counterpart, to the detriment of the other”.²⁹

In the southern Lakes Region, coastal Mapuche-Huilliche peoples (*Williche*, meaning “people from the south” in *mapuzugún* language) incorporate fishing, seal hunting, and collection of shellfish and algae into their agricultural and animal husbandry practices.³⁰ Chile’s Lakes Region includes the southern tip of its mainland and Chiloé island, home to a blend of Mapuche, Chonos, and Huilliche ancestry, known as “Chilota” culture.³¹ Approximately 28% of residents identify as Indigenous, including the communities of Ancud and Carelmapu.³² Residents in Carelmapu note that *Lafkenche* (“people of the sea”) fished, collected seaweed, and harvested shellfish since the 15th century.³³

In the Spanish colonial period (1550-1820), Mapuche fishers built boats travelling to Chiloé, Santa Maria, and Mocha Islands, relying on seal oil for lighting and food.³⁴ Fishery

²⁹ Patricia Viera-Bravo, “Principios del *Mapuche mongen* para la resignificación de la economía en tiempos de crisis del capitalismo neoliberal, desde el sur de Chile/ Principles of the *Mapuche Mongen* for Redefinition of the Economy in times of crisis under Neoliberal Capitalism, from southern Chile” (2021) 10:2 Revista Iberoamericana de Estudios de Desarrollo 84 at 99.

³⁰ Exequiel González-Poblete, Vladimir Kaczynski, & Andrea Méndez Arias, “Marine Coastal Resources as an Engine of Development for the Lafkenche and Williche Populations of Southern Chile” (2020) 51:1 Ocean Development and International Law 47 at 50, 52; Francisco Araos et al, “Sentinels of Carelmapu: Participatory Community Monitoring to Protect Indigenous Marinescapes in Southern Chile” in Patricia E. Perkins, ed, *Climate justice and participatory research building climate-resilient commons* (University of Calgary Press, 2023) 230, online: OAPEN <<https://library.oapen.org/handle/20.500.12657/63859>>.

³¹ Luisa E. Delgado et al, “Including traditional knowledge in coastal policymaking: Yaldad bay (Chiloé, southern Chile) as a case study” (2022) 143:105181 Marine Policy 1 at 2; See also Alejandro Mora-Motta & Till Stellmacher, “Tree Plantations at the Last Resource Frontiers: Extractivism and Territorialisation in Southern Chile” in Wolfram Laube & Aline R. B. Pereira, eds, *‘Civilizing’ Resource Investments and Extractivism: Societal negotiations and the role of law* (LIT Verlag, 2021) 115 at 129, footnote 3.

³² Sarah A. Ebel, “Moving Beyond Co-Management: Opportunities and Limitations Enabling Transitions to Polycentric Governance in Chile’s Territorial User Rights in Fisheries Policy” (2020) 14:1 International Journal of the Commons 278 at 283.

³³ Sarah A. Ebel, Christine M. Beitzl, & Michael P. Torre, “Values Underlying Preferences for Adaptive Governance in a Chilean Small-Scale Fishing Community” (2020) 30:5 Environmental Values 566 at 583.

³⁴ González-Poblete, Kaczynski, & Arias, *supra* note 30 at 52; See also Tom D. Dillehay, “The Archaeology of Hispanic-Mapuche *Parlamento* Sites” in José Manuel Zavala, Tom D. Dillehay, & Gertrudis Payàs, eds, *The Hispanic-Mapuche Paramentos: Interethnic Geo-Politics and Concessionary Spaces in Colonial America* (Springer Nature, 2020) 145 at 147.

resources are still used as medicine for animals and humans, making seal hides for clothing, and monetary income.³⁵ In addition to agrarian subsistence, the sea has remained a foundational aspect of Mapuche-Huilliche identity.³⁶

Even before European contact, Mapuche society was agrarian but always evolving. In the valleys of central Chile and Argentina, contact with the Incas was violent but adaptive, incorporating basic foods like potatoes, beans, and quinoa, now considered ancestral foods.³⁹ After European contact, the horse as a means of travel and labour, along with cattle, goats, and root vegetables, were incorporated into their way of life as small-scale subsistence farmers.⁴⁰

In the 16th century, Spanish Conquistadors captured territory north of the south-central Bío Bío River.⁴¹ After the Arauco War (1546-1598), bilateral treaties between Mapuche and the Spanish Crown mutually recognized sovereign territory in 1641, with the Bío-Bío river representing a border.⁴² Conquistadors referred to this area as “La Araucanía” (“muddy water”).⁴³ Mapuche peoples never adopted this name for their territory, nor what it connoted about their people – they consider this term “wingka” meaning “new Inca”,⁴⁴ representing stranger, aggressor, or thief.⁴⁵

³⁵ González-Poblete, Kaczynski, & Arias, *supra* note 30 at 52.

³⁶ *Ibid* at 47.

³⁹ Ray, *supra* note 11 at 34; José Aylwin O., “Política Públicas y Pueblos Indígenas: El Caso de la Política de Tierras del Estado Chileno y el Pueblo Mapuche/ Public Policy and Indigenous Peoples: The Case of Chilean State Land Policy and the Mapuche Peoples” (2002) University of Texas, Austin, Working Paper CLASPO at 3; Maria Teresa Planella Ortiz, “Quinoa in pre-Hispanic central Chile: contributions from archaeology and cultural processes” (2019) 46:2 Cien. Inv. Agr. 69 at 70-71.

⁴⁰ Ray, *supra* note 11 at 24.

⁴¹ Ruth Vargas-Forman, Patricia Viera-Bravo & Juan Pichún-Collonao, “Pueblo mapuche vs Estado de Chile ante la Corte Interamericana de Derechos Humanos: experiencia del lof Temulemu/ Mapuche people vs State of Chile before the Inter-American Court of Human Rights: experience of the lof Temulemu” (2022) Quebec Journal of International Law 81 at 90; Ineke Smeets, *A Grammar of Mapuche* (Mouton de Gruyter, 2007) at 7; Elizabeth Jane Macpherson, *Indigenous Water Rights in Law and Regulation: Lessons from Comparative Experience* (Cambridge University Press, 2019) at 164.

⁴² Vargas-Forman, Viera-Bravo, & Pichún-Collonao, *supra* note 41 at 89; Smeets, *supra* note 41 at 7.

⁴³ Smeets, *supra* note 41 at 7.

⁴⁴ Romina Green Rioja, “Land and the Language of Race: State Colonization and the Privatization of Indigenous Lands in Araucanía, Chile (1871-1916)” (2023) 80:1 The Americas 69 at 73.

⁴⁵ Smeets, *supra* note 41 at 4.

More than 40 treaties signed from 1641 onward paradoxically mark the beginning of another 200 years of resistance by Mapuche against encroachment.⁴⁶ At least 59 meetings from 1593-1803 document peace discussions for territory south of the Bío-Bío river.⁴⁷ The border remained relatively stable after 1810, following the beginning of Spanish independence movements in Latin America under the controversial international law principle of *uti possidetis*.⁴⁸ Chile formally declared independence in 1817.⁴⁹

Peace between Mapuche *longkos* and Chilean oligarchy changed with increasing military occupation along the border towards the mid-century.⁵⁰ In 1862, a genocidal military campaign annexed territories south of the river by burning ranches, abducting children, and killing livestock.⁵² Euphemistically referred to as the “Pacification of Araucanía”, its end in 1883 led to creation of an Indigenous Settlement Commission, forcibly displacing Mapuche to significantly smaller *reducciones* (“reductions”).⁵³

The reductions replaced *lofs* with lands barely suitable for housing and subsistence.⁵⁴ Between 1883 and 1929, the state forcibly displaced Mapuche to lands constituting 6% of their

⁴⁶ Macpherson, *supra* note 41 at 163-164; Ugarte, “Walking and telling”, *supra* note 10 at 205.

⁴⁷ José Manuel Zavala, “Origin of the Spanish-Mapuche *Parlamentos*: The European Treaty Tradition and Mapuche Institutions of Negotiation” in José Manuel Zavala, Tom D. Dillehay, & Gertrudis Payàs, eds, *The Hispanic-Mapuche Parlamentos: Interethnic Geo-Politics and Concessionary Spaces in Colonial America* (Springer Nature, 2020) 11 at 11.

⁴⁸ Ugarte, “Walking and telling”, *supra* note 10 at 205; Greg Grandin, “The Liberal Traditions in the Americas: Rights, Sovereignty and the Origins of Liberal Multilateralism” (2012) *American Historical Review* 68 at 82-3.

⁴⁹ Ray, *supra* note 11 at 50; See Carlos Parodi, *The Politics of South American Boundaries* (Bloomsbury Publishing, 2002) at 24-5; See also Juan Pablo Scarfi, “Latin America and the Idea of Peace”, in Charles F. Howlett, ed, *The Oxford Handbook of Peace History* (Oxford University Press, 2022) 266 at 268-69.

⁵⁰ Ugarte, “Walking and telling”, *supra* note 10 at 205; Ray, *supra* note 11 at 51-2.

⁵² Vargas-Forman, Viera-Bravo, & Pichún-Collonao, *supra* note 41 at 90-1; Héctor Nahuelpán, Jaime Antimil, & Kathryn Lehman, “Mapuchezugun Ka Mapuche Kimün: Confronting Colonization in Chile (Nineteenth and Twentieth Centuries)” in Elizabeth Ann McKinley & Linda Tuhiwai Smith, eds, *Handbook of Indigenous Education* (Springer Nature, 2019) 63 at 66-7.

⁵³ Nahuelpán, Antimil, & Lehman, *supra* note 52 at 68; Macpherson, *supra* note 41 at 164.

⁵⁴ Viera-Bravo, “Principios del Mapuche mongen”, *supra* note 29 at 95.

territory, legally inscribed by almost 3,000 collective land titles.⁵⁵ The other 94% of high quality land was distributed among the military, private business, individuals, and Chilean and European settlers.⁵⁶ Mapuche lands were first used to expand international cereal exports, and reorganized again under Pinochet to establish pine and eucalyptus plantations for timber and pulp exports.⁵⁷

In the latter case, Pinochet's Decree Laws 2568 and 2750 divided Mapuche communities into individual property titles.⁵⁸ From 1979-1988, an estimated 20,000 Mapuche lost their right to individual property, due to physical absence from redistribution of titles, many living far from urban centers.⁵⁹ Resettlement under Pinochet imposed wire fences to demarcate land, changing previous Mapuche norms regarding ditches and bushes as natural boundaries.⁶⁰ This impaired livestock movement and human mobility required to cultivate wheat.⁶¹

From 1881 to the 1920s, Chile and Argentina established borders, preventing community travel across the Andes to *Puelmapu* for trade and sacred rituals.⁶² From the 1930s onward, fraudulent buying and selling of titles, 99-year leases, and mortgage of territorial rights triggered poverty and mass migration to large Chilean cities.⁶³ In the 1960s, publications described "the Mapuche problem", perceiving survival of Mapuche culture after the colonial period as "foreign

⁵⁵ Nahuelpán, Antimil, & Lehman, *supra* note 52 at 68; Viera-Bravo, "Principios del *Mapuche mongen*", *supra* note 29 at 95; Ugarte, "Walking and telling", *supra* note 10 at 206.

⁵⁶ Patricia Viera-Bravo, "Küme mongen en el proceso constituyente chileno: Aporte del Buen Vivir Mapuche a una nueva relación con la naturaleza/ Küme mongen in the Chilean constituent process: Contribution of the Mapuche Buen Vivir to a new relationship with nature" (2022) 12:2 Revista Andina de Estudios Políticos 1 at 11; See Fabián Almonacid, "Migration and Return to Mapuche Lands in Southern Chile, 1970-2022" (2023) 15:4457 Sustainability 1 at 3-4.

⁵⁷ Viera-Bravo, "Küme mongen", *supra* note 56 at 11; Ugarte, "Walking and Telling", *supra* note 10 at 206.

⁵⁸ Almonacid, *supra* note 56 at 5.

⁵⁹ *Ibid.*

⁶⁰ *Ibid.*

⁶¹ *Ibid.*

⁶² *Ibid* at 4; See Álvaro Bello, "Cordillera, Naturaleza y Territorialidades Simbólicas entre Los Mapuche de Siglo XIX/ Mountain Range, Nature, and Symbolic Territorialities among the Mapuche of the 19th Century" (2014) 6 Scripta Philosophiae Naturalis 21 at 22.

⁶³ Viera-Bravo, "Principios del *Mapuche mongen*", *supra* note 29 at 95; Ugarte, "Walking and telling", *supra* note 10 at 206.

to civilization”.⁶⁵ Urban migration peaked in the 1970s, although since the recent global pandemic, a slight reverse trend of increased rural migration is occurring.⁶⁶

Mapuche continue subsistence ways of life, but approximately 30% of the population lives in Chile’s capital city, Santiago.⁶⁸ Community members still located in the Valparaíso region increasingly abandon subsistence agriculture,⁶⁹ moving to the city or working at large-scale agribusiness operations.⁷⁰ The colonial model of constructing Mapuche identity as “savage” continues through anti-terrorism laws used to imprison land defenders.⁷¹

Geographic transformation of entire countrysides to supply international food and timber markets incites conflict over water use throughout central Chile.⁷² The government exacerbates this conflict in subsidizing large-scale irrigation for agricultural development⁷³ and coastal governance policies in the interest of export profits.⁷⁴ In 2004, Mapuche communities were forcibly displaced from Araucanía region due to creation of the Pangue and Ralco hydroelectric

⁶⁵ Reinao, *supra* note 20 at 289.

⁶⁶ Almonacid, *supra* note 56 at 15; See Héctor Nahuelmán et al, “In Wallmapu, Colonialism and Capitalism Realign” (2021) 53:3 NACLA Report on the Americas 296 at 299.

⁶⁸ Walter A. Imilan O., “Ser Mapuche en la ciudad: Perspectivas sobre migración, etnificación y cultura/ Being Mapuche in the city: Perspectives on migration, ethnification and culture” in Isabel Aninat S., Verónica Figueroa H., Ricardo González T., eds, *El pueblo Mapuche en el siglo XXI: Propuestas para un nuevo entendimiento entre culturas en Chile* (Centro de Estudios Públicos, 2017) 79 at 81.

⁶⁹ Smeets, *supra* note 41 at 4; Lorena P. Gallardo-Peralta, Esteban Sánchez-Moreno, & Vicente Rodríguez-Rodríguez, “Loneliness Among Indigenous People in Chile: A Neglected Issue” in Jordan P. Lewis & Tuula Heinonen, eds, *Social Aspects of Aging in Indigenous Communities* (Oxford University Press, 2023) 336 at 345.

⁷⁰ Rioja, *supra* note 44 at 99; at 2; Raúl Cerda, Rosa Gallardo-Cobos, & Pedro Sánchez-Zamora, “An Analysis of the Impact of Forest Policy on Rural Areas of Chile” (2020) 11:1105 *Forests* 1 at 2.

⁷¹ Héctor Nahuelmán et al, “Colonial Recognition and Militarized Accumulation in Mapuche Territory” (2022) 54:4 NACLA Report on the Americas 438 at 443; See Lucia Newman, “Chile: Indigenous group escalating tactics to take back land” (20 September 2020), online: *Al Jazeera* <<https://www.aljazeera.com/videos/2020/9/20/chile-indigenous-group-escalating-tactics-to-take-back-land>>; See also Intercontinental Cry (IC), “Pascual Pichún Collonao, A Mapuche Political Prisoner” (n.d.), online: *IC* <<https://intercontinentalcry.org/pascual-pichun-collonao-a-mapuche-political-prisoner/>>.

⁷² Cerda, Gallardo-Cobos, & Sánchez-Zamora, *supra* note 70 at 2; Aldo Madariaga, Antoine Maillet, & Joaquín Rozas, “Multilevel business power in environmental politics: the avocado boom and water scarcity in Chile” (2021) *Environmental Politics* 1 at 5.

⁷³ Cerda, Gallardo-Cobos, & Sánchez-Zamora, *supra* note 70 at 13-4.

⁷⁴ Beatriz Bustos-Gallardo, Gonzalo Delamaza, & Ricardo Rivas, “Project and Territory: Salmon Farming and Social Transformations in the Island of Chiloé, Chile” (2021) 20:2 *Journal of Latin American Geography* 103 at 108-09.

dams at Bío-Bío River.⁷⁶ In contrast to a reciprocal relationship among living beings, agribusiness and commercial aquaculture view nature as a commodity, seeing its value as a product for market exchange and capital accumulation.⁷⁷

3) Aymara Peoples in Northern Chile

While Mapuche in central and southern Chile are the largest sub-population of Indigenous peoples, the Aymara in the north represent the second largest.⁷⁸ The Aymara are a distinct northern group from areas now straddling the borders of Peru, Bolivia, and Chile's northernmost regions, Arica-Parinacota, Tarapacá, and Antofagasta.⁷⁹ The diverse northern groups of Aymara, Quechua, and Atacameño peoples speak distinct languages,⁸⁰ although some common linguistic heritage is traceable to long-distance reciprocal exchange.⁸¹

⁷⁶ Jeanne W. Simon & Claudio González Parra, "Cultural and political obstacles to effective resettlement: A case study of involuntary displacement of Pehuenche families by the Pangué and Ralco hydroelectric dams in southern Chile" in Susanna Price & Jane Singer, eds, *Country Frameworks for Development Displacement and Resettlement: Reducing Risk, Building Resilience* (London: Routledge, 2019) 247 at 250; *Mercedes Julia Huenteao Beroiza and others v Chile (Friendly Settlement)*, IACHR, Petition No 4617, Report No 30/2004 (11 March 2004) at para 34(7) [*Mercedes Julia Huenteao Beroiza*].

⁷⁷ Skewes et al, *supra* note 23 at 385, 396; Bustos-Gallardo, Delamaza, & Rivas, *supra* note 74 at 105-06.

⁷⁸ Hugo Romero-Toledo & Katy Jenkins, "Contested waters, extractivisms, and territories: Indigenous people in Chile and the neoliberal crisis", in Miguel Sioui, ed, *Indigenous Water and Drought Management in a Changing World* (Elsevier, 2022) 189 at 196-97; International Work Group for Indigenous Affairs (IWGIA), "The Indigenous World 2021: Chile", online: IWGIA <<https://www.iwgia.org/en/chile/4210-iw-2021-chile.html>>.

⁷⁹ Hugo Romero Toledo, Angélica Videla, & Felipe Gutiérrez, "Explorando Conflictos entre Comunidades Indígenas y la Industria Minera en Chile: Las Transformaciones Socioambientales de la Región de Tarapacá y el caso de Lagunillas/ Exploring Conflicts between Indigenous Communities and the Mining Industry in Chile: Socioenvironmental Transformations of the Tarapacá Region and the case of Lagunillas" (2017) 55 *Estudios Atacameños* 231 at 238-39; Gonzalo Álvarez, Christian Ovando, & Carlos Piñones, "Questioned Sovereignty and Challenged Diplomacies: The Case of the Aymara People and the State of Chile" (2022) 37:2 *Journal of Borderlands Studies* 339 at 340.

⁸⁰ Francisco Gallardo & María Carolina Odone, "El Oasis de Quillagua: una Note sobre Fronteras entre Picas y Atacamas (Río Loa Inferior, Períodos Intermedio Tardío y Colonial Tardío, Norte de Chile)/ Quillagua Oasis: a Note on Borders between Atacamas and Picas (Lower Loa River, Late Colonial Period and Late Intermediate Period, Northern Chile)" (2019) 6:12 *Revista Antropologías del Sur* 175 at 187.

⁸¹ Francisco Gallardo, "Reciprocal exchange, value, and forms of transactions: an archaeological approach from the Atacama Desert (northern Chile)" (2022) 28 *Journal of the Royal Anthropological Institute* 1326 at 1332; See also Alex Liebman et al, "Applying Critical Physical Geographies: Territorial And Water Defense In Northern Chile" (12 June 2019), online: *Society and Space* <<https://www.societyandspace.org/articles/applying-critical-physical-geographies-territorial-and-water-defense-in-northern-chile>>.

The origin of Andean populations in the Atacama desert extends over 10,000 years, with crop practices and animal domestication emerging around 2,000 BC.⁸² The high concentration of Aymara communities in Tarapacá region today⁸³ is traceable to Pica-Tarapacá trade caravans in 900 AD who established the community of Quillagua at the Loa River.⁸⁴ Still located on Chile's regional border of Tarapacá and Antofagasta, Quillagua originally served as a meeting place between Aymara from the far north, and Atacameño from the Atacama salt flats.⁸⁵

Linked with pre-Hispanic forms of social organization, communities are organized by the essential social unit, the *ayllu*.⁸⁶ The concept of *ayllu* "is born out of harmony achieved between the spirit and material things, between blood and earth".⁸⁷ Mulluri community members on the eastern margin of Arica-Parinacota refer to the land as "*Pachamama*" (Earth Mother).⁸⁸ As a community of families connected by kinship ties, the *ayllu*'s central purpose in providing physical security, is "to care [for] Mother Earth".⁸⁹ *Ayllus* function as ecological niches, where

⁸² Germán Sepúlveda-Chavera et al, "Agricultural activities and economic projections of Aymara communities in the Lluta river basin and the Precordillera of the Arica and Parinacota Region" (2022) 40:3 *Idesia: Revista de Agricultura en Zonas Áridas* 103 at 106; Magdalena García, Manuel Prieto, & Fernanda Kalazich, "The protection of the mountain ecosystems of the Southern Central Andes: tensions between Aymara herding practices and conservation policies" (2021) 13:1 *Journal of Protected Mountain Areas Research and Management* 22 at 28; Paula C. Ugalde et al, "13,000 years of sociocultural plant use in the Atacama Desert of northern Chile" (2021) 30 *Vegetation History and Archaeobotany* 213 at 225.

⁸³ Rebecca Haboucha & Daniella Jofré, "Safeguarding Indigenous Heritage in the Chilean Atacama Desert: Negotiating Identity Claims and Community Perceptions of Long-term Climate Change" (2021) 14:2-3 *Heritage & Society* 216 at 219.

⁸⁴ Gallardo & Odone, *supra* note 80 at 175; Lautaro Núñez & Luis Briones, "Intersite locations of precontact caravan traffic in the core of the Atacama Desert, northern Chile" in Persis B. Clarkson & Calogero M. Santoro, eds, *Caravans in Socio-Cultural Perspective: Past and Present* (Routledge, 2021) 212 at 213-15.

⁸⁵ Valentina Acuña & Manuel Tironi, "Extractivist droughts: Indigenous hydrosocial endurance in Quillagua, Chile" (2022) 9:101027 *The Extractive Industries and Society* 1 at 4; See also Manuel Prieto, "Practicing *costumbres* and the decommodification of nature: The Chilean water markets and the Atacameño people" (2016) 77 *Geoforum* 28 at 30-1.

⁸⁶ Tomas Alarcon, "The Ayllu: The Basic Social Unit of the Aymara People" (2001) 14:2 *St Thomas L Rev* 449 at 451; Romero-Toledo & Jenkins, *supra* note 78 at 191.

⁸⁷ Alarcon, *supra* note 86 at 452.

⁸⁸ García, Prieto, & Kalazich, *supra* note 82 at 27.

⁸⁹ Alarcon, *supra* note 86 at 451-52.

humans, plants, animals, mountains, and rivers exist in an interconnected relationship of care and reciprocity.⁹⁰

In the mountain plateaus of Arica-Parinacota and Tarapacá, Aymara livestock herding, fleece and textile production, and cultivation of potatoes and quinoa rely on seasonal cycles of the rainy period.⁹¹ Mulluri herders migrate according to seasonal changes in rain-fed pasture growth, providing “year-round” grazing for vicuña, llama, and alpaca herds.⁹² Depending on community locales in northern humid or drier southern climates, Aymara ascend the plateaus with their herds during summer rains, and descend towards the coast during the winter.⁹³ The latter practice is carried out in Tarapacá’s drier areas, relying on coastal rains during the winter, where flora and fauna grow along lower mountain sides.⁹⁴

Migration patterns and interactions with plants and animals are organized by a principle of reciprocity.⁹⁵ Livestock fertilize the soil with manure, while consuming the grasses grown from last year’s fertilization.⁹⁶ Mulluri herders say that animals “return to their guano” with the seasons.⁹⁷ Aymara take care of pastures during the resting/windy season, travelling to clean irrigation canals in preparation for grazing.⁹⁸ Water irrigation varies, “from simple stone dykes and ditches to complex channels, tanks and pipeline networks”.⁹⁹ Taking care of pastures is called “greening the pasture”, where “cleaning, irrigation, manuring, and rest periods...keep

⁹⁰ *Ibid* at 451; João Vitor Cardoso & Millaray Rayen Pacheco-Pizarro, “Water rights, indigenous legal mobilization and the hybridization of legal pluralism in Southern Chile” (2022) 54:1 Legal Pluralism and Critical Social Analysis 117 at 126, footnote 10.

⁹¹ García, Prieto, & Kalazich, *supra* note 82 at 24; Penelope Dransart & Marietta Ortega Perrier, “When the Winds Run with the Earth: Cannibal Winds and Climate Disruption in Isluga, Northern Chile” (2021) 62:1 Current Anthropology 101 at 102-03, 105.

⁹² García, Prieto, & Kalazich, *supra* note 82 at 24; Sepúlveda-Chavera et al, *supra* note 82 at 104, 117.

⁹³ García, Prieto, & Kalazich, *supra* note 82 at 24.

⁹⁴ *Ibid* at 25.

⁹⁵ *Ibid* at 27.

⁹⁶ *Ibid* at 25.

⁹⁷ *Ibid*.

⁹⁸ *Ibid*; Sepúlveda-Chavera et al, *supra* note 82 at 108; Dransart & Perrier, *supra* note 91 at 105.

⁹⁹ García, Prieto, & Kalazich, *supra* note 82 at 25.

[pastures] healthy, reduce erosion, prevent frost, and increase grazing surface and capacity”.¹⁰⁰ In return, animals provide wool for clothing and meat for consumption,¹⁰¹ while plants provide some food for humans.¹⁰²

In raising cattle and cultivating the land, water is considered a familial relative of the *ayllu*.¹⁰⁷ Aymara channel and harvest seasonal snowmelt descending from the Andes as drinking water for livestock; a practice enabling subsistence ways of life since pre-colonial times.¹⁰⁸ Some locations along the coast of Arica-Parinacota suggest continuous irrigation use by herders since the pre-colonial period.¹⁰⁹

On the arid eastern margins of Tarapacá, Isluga herders celebrate the visit of *Kamañchaka*, a rolling mist from the Pacific sometimes reaching the highlands.¹¹⁰ In a celebration called *carnival*, Aymara sing “we are *Kamañchaka*”, identifying the arrival of moisture as a member of the community.¹¹¹ In Quillagua, an Aymara neighbour living in the Atacameño Chiu Chiu community states, “Sin el agua no puede existir vida, es todo para nosotros” (Life cannot exist without water, it is everything to us”).¹¹² Traditional irrigation rituals expressing respect for water embody a saying within communities of the region: “agua es

¹⁰⁰ *Ibid.*

¹⁰¹ Sepúlveda-Chavera et al, *supra* note 82 at 117; See also J.M. Grünwaldt et al, “Pastoralism in the drylands of Latin America: Argentina, Chile, Mexico and Peru” (2016) 35:2 Rev. Sci. Tech. Off. Int. Epiz. 553 at 556.

¹⁰² García, Prieto, & Kalazich, *supra* note 82 at 25-6.

¹⁰⁷ Domingo A. Lovera Parmo, “Indigenous peoples and the Sale of Water Rights: The Case of Chile” in Malcolm Langford & Anna F. S. Russell, eds, *The Human Right to Water: Theory, Practice, and Prospects* (Cambridge University Press, 2017) 84 at 103.

¹⁰⁸ Ugalde et al, at 221; Amaya Álvarez et al, “Waters of Andean Indigenous Peoples: Ancestral Rights and the Neutralization of their Claims” in Diego A. Rivera, Alex Godoy-Faundez, Mario Lilo-Saavedra, eds, *Andean Hydrology* (Taylor & Francis, 2018) 55 at 61.

¹⁰⁹ García, Prieto, & Kalazich, *supra* note 82 at 25.

¹¹⁰ Dransart & Perrier, *supra* note 91 at 103.

¹¹¹ *Ibid* at 104.

¹¹² Acuña & Tironi, *supra* note 85 at 3.

un ser” (water is a being), where water’s agency in land and people is a spiritual connection to be celebrated and protected.¹¹³

The *ayllu* structure of organization changed significantly during the Spanish colonial period.¹¹⁴ *Ayllus* were subject to reorganization around towns, and properties registered in rural or town spaces.¹¹⁵ This changed the former method of demarcating land, called “saywaña”, from a localized determination of boundaries based on the natural environment, to one determined by colonial government planning.¹¹⁶ With lands registered under a Spanish usufruct system, these smaller communities continued subsistence life, but subject to taxes and tributes by the colonial state in perpetuity.¹¹⁷

After independence, Chile transformed many *ayllus* into towns, with territories divided for mining, agriculture, and trade.¹¹⁸ 1915 marks a historic dispossession of Aymara communities’ water resources, in creating of one of the largest multinational mines still operating today, Chuquicamata.¹¹⁹ Urbanization and mineral extraction continues to affect water availability required to maintain cultivation and grazing practices.¹²⁰

¹¹³ Jennapher Lunde Seefeldt, “Water as property: Contention between indigenous communities and the lithium industry for water rights in Chile” (2022) 13 Latin American Policy 328 at 342.

¹¹⁴ Hugo Romero-Toledo, “Etnicidades, etno-territorios y conflictos mineros: aportes para una geografía humana de los aymaras en Chile/ Ethnicities, ethno-territories and mining conflicts: contributions for a human geography of the Aymaras in Chile” (2018) 71 Revista de Geografía Norte Grande 211 at 217-18; Raúl Molina Otárola, “Saywaña, amojonamientos y deslindes en Villablanca y Chulluncane: geografía de un conflicto de tierras Aymara/ Saywaña, demarcations and boundaries in Villablanca and Chulluncane: geography of an Aymara land conflict” (2015) 62 Revista de Geografía Norte Grande 29 at 34-5.

¹¹⁵ Otárola, *supra* note 114 at 35.

¹¹⁶ *Ibid*; See Sepúlveda-Chavera et al, *supra* note 82 at 106.

¹¹⁷ Romero-Toledo, “Etnicidades”, *supra* note 114 at 217-18.

¹¹⁸ Romero-Toledo & Jenkins, *supra* note 78 at 191.

¹¹⁹ Romero Toledo, Videla, Gutiérrez, *supra* note 79 at 236.

¹²⁰ Romero-Toledo & Jenkins, *supra* note 78 at 192.

Mining on Aymara territory is historically linked to European influence by British nitrate investors, who supported Chilean mining expansion in violent opposition to Bolivia and Peru.¹²¹ In the late 19th century, Chile annexed territories from both states after the War of the Pacific, also called the Nitrate War (1879-1883).¹²⁴ The 1884 Treaty of Valparaíso ceded Bolivia's Antofagasta, with border control consolidated in the 1904 Treaty of Peace and Friendship.¹²⁵ Peru ceded Tarapacá province with the 1883 Treaty of Ancón.¹²⁶

Chile and Peru consolidated the Arica (Chile) and Tacna (Peru) border in 1930 with the Treaty of Lima, thereby dividing the *ayllu* of Ancomarca.¹²⁷ Property titles registered by respective states make no mention of the *ayllu* structure, instead mentioning individual cattle ranchers.¹²⁸ The consolidation of northern state power from 1883 onward, led to a boom of urban growth and mining activity. Copper mining increased in 1930 after synthetic nitrate technology rendered mining sources unprofitable.¹²⁹

In addition to economic interests, the Chilean state used northern borders to strengthen national identity.¹³¹ From the colonial perspective, the borders rendered Peruvians and Bolivians racially different, linked with Indigenous identity and alleged lack of civilization.¹³² The

¹²¹ Brett Clark & John Bellamy Foster, "Ecological Imperialism and the Global Metabolic Rift: Unequal Exchange and the Guano/Nitrates Trade" (2009) 50:3-4 *International Journal of Comparative Sociology* 311 at 316-17; 325-26.

¹²⁴ *Ibid* at 325-26.

¹²⁵ Menara Guizardi, "When borders transnationalize people: reframing the migrant transnationalism in the Andean tri-border area" (2018) 22:1 *Etnográfica* 169 at 171; William Edmundson, *A History of the British Presence in Chile* (Palgrave Macmillan, 2009) at 160.

¹²⁶ Guizardi, *supra* note 125 at 171.

¹²⁷ Héctor González Cortez & Sergio González Miranda, "Ancomarca, La Comunidad Escindida: Frontera entre Perú, Chile, y Los Aymaras del Tripartito/ Ancomarca, The Split Community: Border between Perú, Chile, and Aymaras of the Tripartite" (2018) 23:45 *Aldea Mundo* 7 at 8.

¹²⁸ Cortez & Miranda, *supra* note 127 at 8, 16; Clark & Foster, *supra* note 121 at 326.

¹²⁹ Manuel Prieto & Xurxo M. Ayán Vila, "'Although The Loneliness is Great, Greater Yet is the Love of my Country': Archaeology of a Military Outpost on the Topaín Hillock (Antofagasta Region, Chile)" (2014) 1:2 *Journal of Contemporary Archaeology* 323 at 326-27.

¹³¹ Macpherson, *supra* note 41 at 165; Álvarez, Ovando, & Piñones, *supra* note 79 at 346.

¹³² Prieto & Vila, *supra* note 129 at 326; Guizardi, *supra* note 125 at 171.

fragmentation of communities from water scarcity, urbanization, and historical dispossession reduced *ayllu* organization originally based in communal sharing of land for cultivation and herding.¹³⁴

Despite reordering of space, traditional *ayllu* still exist in the oases and foothills of the Andean plateau.¹³⁵ 190 titles to Aymara communities registered by Chile exist in Tarapacá and Arica-Parinacota, with an area of approximately 1.4 million hectares.¹³⁶ Communities in the Tarapacá region practice mixed forms of subsistence, from livestock in the wetlands, to small-holding agriculture in the Andean foothills.¹³⁸

On the ancestral territory of the Ancomarca *ayllu*, the Tripartite International Fair is held every two weeks, where border controls are relaxed along the Visviri (Chile), Ancomarca (Peru), and Charaña (Bolivia) locales.¹³⁹ Aymara from each state sell agricultural and self-made products, or exchange animals and goods.¹⁴⁰ Shepherds from these communities still cross the border with their llamas, by way of practical knowledge of mountainous areas, and through territories incapable of being patrolled or delineated by state forces.¹⁴¹

The majority of Aymara live in port cities like Arica, Iquique, and Antofagasta, with Indigenous political power circulating between rural and urban districts.¹⁴² Thousands of Aymara

¹³⁴ Romero-Toledo & Jenkins, *supra* note 78 at 192; Álvarez, Ovando, & Piñones, *supra* note 79 at 345-46.

¹³⁵ Romero-Toledo & Jenkins, *supra* note 78 at 192; See also P. Marconi, F. Arengo, & A. Clark, "The arid Andean plateau waterscapes and the lithium triangle: flamingos as flagships for conservation of high-altitude wetlands under pressure from mining development" (2022) 30 Wetlands Ecology and Management 827.

¹³⁶ Otárola, *supra* note 114 at 37.

¹³⁸ Romero-Toledo & Jenkins, *supra* note 78 at 191; Hugo Romero-Toledo & Aurora Sambolin, "Indigeneidad y Territorio: Los Aymaras y Quechuas en el Norte de Chile/ Indigeneity and territory: the Aymara and Quechua in Northern Chile" (2019) 23:611 Scripta Nova 1 at 16.

¹³⁹ Guizardi, *supra* note 125 at 178, 180; Sergio González Miranda, "La Frontera como Margen Heterológico: El Tripartito Andino (Bolivia, Perú y Chile) y el Espejismo Académico sobre los 'Aymaras Sin Fronteras' / The Border as a Heterological Margin: The Andean Tripartite (Bolivia, Peru and Chile) and the Academic Illusion about 'Aymaras Without Borders'" (2019) 60 Diálogo Andino 115 at 118.

¹⁴⁰ Guizardi, *supra* note 125 at 180; Miranda, *supra* note 139 at 118-19.

¹⁴¹ Guizardi, *supra* note 125 at 186.

¹⁴² Romero-Toledo & Jenkins, *supra* note 78 at 196; Hugo Romero-Toledo, "Extractivismo en Chile: la producción del territorio minero y las luchas del pueblo Aymara en el Norte Grande/ Extractivism in Chile: The Production of

peoples living and working in the city still return to small rural communities for traditional rituals and cultural festivals.¹⁴³ Approximately 31.5% of Arica-Parinacota self-identifies as Aymara, where 97.7% of Aymara in the region live in Arica city.¹⁴⁴ However, half of the region's farms are operated by Aymara, suggesting many live in the city but travel "daily, weekly, or seasonally", to harvest, clean irrigation, or tend to livestock.¹⁴⁵

Those with links to cross-border urban and rural territories are recognized as part of the community, even when their personal economic activity centers on city markets.¹⁴⁶ From the perspective of urban Aymara, traditional subsistence life through cattle herding is lost despite memories of the practice, while the transport business emerges through urban family linkages to ancestral territory.¹⁴⁷ According to Garcés and Moraga, urban and rural identities exist in a dynamic tension of deterioration and enforcement.¹⁴⁸

For example, an elite fringe of Aymara families own and operate trucking companies crossing the Bolivian border.¹⁴⁹ Aymara transport elites return to the village to host the traditional ceremony, *carnival*.¹⁵⁰ However, these "lavish festivals" which originally functioned to strengthen kinship bonds of the whole community, are appropriated as a political instrument for business clout.¹⁵¹ Many visit home villages less frequently, almost exclusively for rituals like

Mining Territory and the Struggles of the Aymara people in Norte Grande" (2019) 98 Colombia Internacional 3 at 14-16.

¹⁴³ Romero-Toledo, "Extractivismo", *supra* note 142 at 17.

¹⁴⁴ Sepúlveda-Chavera et al, *supra* note 82 at 108.

¹⁴⁵ *Ibid*.

¹⁴⁶ Alejandro Garcés H. & Jorge Moraga R., "Ground Transportation and New Interconnections between Aymara Society and the Economy" (2016) 48:3 Chungara, Revista de Antropología Chilena 441 at 446-47.

¹⁴⁷ *Ibid* at 447; Guizardi, *supra* note 125 at 188-89.

¹⁴⁸ Garcés H. & Moraga R., *supra* note 146 at 443.

¹⁴⁹ *Ibid* at 444-45.

¹⁵⁰ *Ibid* at 445-46.

¹⁵¹ *Ibid* at 446.

carnival.¹⁵² The majority of Aymara living in *ayllu* are elderly, with communities varying in size from 10-200 people.¹⁵³

Under Pinochet's dictatorship from 1973-1990, the state encouraged migration to cities as labour for mining operations while preventing movement across traditional territory.¹⁵⁴ The state rationale claims to stop rural poverty and drug trafficking, but effectively restricts herd migration and cultivation practices of Aymara peoples.¹⁵⁵ Chilean armed forces continue to patrol these northern borderlands, while facilitating urban assimilation in providing drinking water and lighting to urban districts.¹⁵⁶

After the *Water Code* of 1981, copper and lithium mining expanded through state-granted water rights, inducing drought in wetland areas used for communal cattle-raising.¹⁵⁷ Aymara herders note increasing uncertainty and unpredictability regarding changes in the rainy season due to drought.¹⁵⁸ Conflicts over monetary compensation for social and environmental effects in the "mining north" of Chile is a "major issue", as contamination of water, soil, and air, affects agricultural productivity and kills cattle.¹⁵⁹

4) State Regulation of Water and Natural Resources: from Colonial Times to Present

This section examines domestic mechanisms for regulating water and natural resources. I outline regulatory theory, historical applications in Chile, and current functions and effects. The state conception of water as natural resource and commodity is a key problem in Chile's system

¹⁵² *Ibid* at 447.

¹⁵³ Romero-Toledo, "Extractivismo en Chile", *supra* note 142 at 17; Sepúlveda-Chavera et al, *supra* note 82 at 107; Gallardo-Peralta, Sánchez-Moreno, & Rodríguez-Rodríguez, *supra* note 69 at 336.

¹⁵⁴ Álvarez, Ovando, & Piñones, *supra* note 79 at 340.

¹⁵⁵ *Ibid* at 346.

¹⁵⁶ Álvarez, Ovando, & Piñones, *supra* note 79 at 347-8.

¹⁵⁷ Romero-Toledo & Jenkins, *supra* note 78 at 193.

¹⁵⁸ Dransart & Perrier, *supra* note 91 at 107.

¹⁵⁹ Romero-Toledo & Jenkins, *supra* note 78 at 193, 195.

of prior allocation, centralized policy-making, and delegated decision-making. Justifications for legitimate authority are grounded in economic efficiency and expertise that ignore broader socio-legal and political dimensions to regulation and privatization. As such, regulation in its current largely privatized form facilitates environmental degradation and continued violation of Mapuche and Aymara's peoples' right to water for subsistence and ancestral practices.

A) Regulatory theory as a conceptual framework

The concept of regulation is interdisciplinary, with applicable definitions corresponding to varying sets of social phenomena under investigation.¹⁶⁰ Three seminal definitions characterize regulation as: i) “the promulgation of an authoritative set of rules”, alongside monitoring mechanisms for compliance, ii) “all of the efforts of state agencies to steer the economy”, and iii) “all mechanisms of social control – including unintentional and non-state processes”.¹⁶¹

Variation regarding why regulation emerges, which actors matter, and how they interact correspond to theoretical applicability to a range of social phenomena investigated: guns, vaccines, tobacco, water, seatbelts, helmets, etc.¹⁶² Broadly speaking, “regulation matters to individuals, to public organizations, [like] nursing homes, schools or prisons, and to private organizations, [like] large manufacturers, small restaurants and supermarkets”.¹⁶³ Law and regulation together express certain values regarding rules for behaviour involving certain objects,

¹⁶⁰ Christel Koop & Martin Lodge, “What is regulation? An interdisciplinary concept analysis” (2017) 11 *Regulation & Governance* 95 at 96.

¹⁶¹ *Ibid* at 95.

¹⁶² Bronwen Morgan & Karen Yeung, *An Introduction to Law and Regulation* (Cambridge University Press, 2012) at 16; David Levi-Faur, Yael Kariv-Teitelbaum, & Rotem Medzini, “Three Theoretical Perspectives on Regulation”, in *Regulatory Governance: History, Theories, Strategies, and Challenges* (Oxford Research Encyclopedia, Politics, 2021) 19 at 19.

¹⁶³ Martin Lodge & Kai Wegrich, *Managing Regulation: Regulatory Analysis, Politics and Policy* (Palgrave Macmillan, 2012) at 13.

spaces, inventions, or actions within a particular social context.¹⁶⁴ In other words, societal governance requires a set of conditions, usually operationalized through law, which are aimed at “educating desires and configuring habits, aspirations and beliefs”.¹⁶⁵

Regulation as a legal concept employed in the social sciences and humanities, is context dependent in considering how authoritative rules, state economy, and methods of social control are emphasized in realms of regulatory discourse. Yet at the same time, “there are shared conceptions of regulation across disciplines...that are not discipline-specific driving the variation in conceptions”.¹⁶⁶ As such, the concept of regulation can be characterized by interaction among three broad perspectives: public interest, private interest, and institutional approaches.¹⁶⁷

Public-interest perspectives view regulation as “an instrument that is created, designed, and applied to achieve public goals.”¹⁶⁸ Legal instruments form the primary means to control public policy, through key functions like standard-setting, behaviour modification, and information-gathering.¹⁶⁹ Part of a state’s legal control over behaviour is its capacity to oversee legal mechanisms used to achieve public interests.¹⁷⁰ Regulatory agencies are tasked with oversight roles amid increasingly complex government and business administrations, and privatized public services, indicating a so-called “rise of the regulatory state” in the past three to

¹⁶⁴ See Janice Nadler, “Expressive Law, Social Norms, and Social Groups” (2017) 42:1 Law & Social Inquiry 60 at 60.

¹⁶⁵ Tania Murray Li, “Governmentality” (2007) 49:2 Anthropologica 275 at 275.

¹⁶⁶ Koop & Lodge, *supra* note 160 at 96.

¹⁶⁷ Levi-Faur, Kariv-Teitelbaum, & Medzini, *supra* note 162 at 19.

¹⁶⁸ *Ibid.*

¹⁶⁹ Lodge & Wegrich, *supra* note 163 at 2, 13-4; Julia Black, “Critical Reflections on Regulation” (2002) 27 Austl J Leg Phil 1 at 26.

¹⁷⁰ Marian Döhler, “Regulation” in Mark Bevir, ed, *The SAGE Handbook of Governance* (SAGE Publications, 2011) 518 at 523.

four decades.¹⁷¹ As such, regulation is primarily justified by the value of efficiency, not necessarily fairness and redistribution.¹⁷²

The most cited rationale for regulating to achieve public goals is to correct “market failures against the power of business”.¹⁷³ Market failures include: deficient or predatory competition due to monopoly over a resource,¹⁷⁴ excessive consumption of a resource,¹⁷⁵ inadequate warnings or notice to consumers regarding harmful commodities,¹⁷⁶ resource scarcity over a public good,¹⁷⁷ and planning, coordination, and service availability problems.¹⁷⁸

All these problems afflict Chilean governance over water, facilitated by design and creation of a regulatory regime emphasizing the value of economic efficiency.¹⁷⁹ The general rationale guiding regulation, “is that water should be bought by the ‘most efficient user’ who has a comparative and competitive advantage over other users because of higher water productivity”.¹⁸⁰ This conception of water as a resource to be regulated in distinct economic units, and justified through political economic expertise, separates its understanding from social contexts of need, possession, use, and supply.¹⁸¹ A technocratic justification bases the legitimacy of regulation in a supposedly “apolitical process in pursuit of economic efficiency”.¹⁸² Yet

¹⁷¹ Lodge & Wegrich, *supra* note 163 at 2-3; See Giandomenico Majone, “From the Positive to the Regulatory State: Causes and Consequences of Changes in the Mode of Governance” (1997) 17:2 *Journal of Public Policy* 139.

¹⁷² Lodge & Wegrich, *supra* note 163 at 2; Black, *supra* note 169 at 9-10; See Karen Yeung, “The Regulatory State”, in Robert Baldwin, Martin Cave, & Martin Lodge, eds, *The Oxford Handbook of Regulation* (Oxford University Press, 2010) 64 at 65-6.

¹⁷³ Levi-Faur, Kariv-Teitelbaum, & Medzini, *supra* note 162 at 19; Black, *supra* note 169 at 9; Yeung, *supra* note 172 at 70.

¹⁷⁴ Robert Baldwin, Martin Cave, & Martin Lodge, *Understanding Regulation: Theory, Strategy, and Practice* (Oxford University Press, 2012) at 15-7, 19-20.

¹⁷⁵ *Ibid* at 18.

¹⁷⁶ *Ibid* at 18-9.

¹⁷⁷ *Ibid* at 20-1.

¹⁷⁸ *Ibid*.

¹⁷⁹ See Manuel Prieto, “Equity vs. Efficiency and the Human Right to Water” (2021) 13:278 *Water* 1 at 4-5, 13-4.

¹⁸⁰ Rutgerd Boelens & Jeroen Vos, “The danger of naturalizing water policy concepts: Water productivity and efficiency discourses from field irrigation to virtual water trade” (2012) 108 *Agricultural Water Management* 16 at 22.

¹⁸¹ Li, *supra* note 165 at 276.

¹⁸² Yeung, *supra* note 172 at 65.

regulation of water as a purely economic resource recasts its surrounding political discourse “in the [supposedly] neutral language of science”.¹⁸³ The legitimacy of regulation as understood in the language of economic expertise ignores democratic participation as justification,¹⁸⁴ and the pursuit of objectives other than preventing market failure.¹⁸⁵

Justifications of regulation from economic efficiency alone also ignores socio-environmental and cultural implications.¹⁸⁶ Crucially, legal facilitation of private extraction of natural resources like minerals, timber, fish, and fruit, implicates water consumption and regeneration of surface and groundwater flows. As will be discussed later in regulation of each natural resource, water scarcity is worsening due to emphasis on “water use efficiency” and export productivity, with fragmented state-agency oversight bodies.¹⁸⁷

Indigenous peoples engaged in subsistence ways of life experience disruption of community legal orders that function in relation to the health and stability of the environment, including times of drought.¹⁸⁸ As such, Aymara and Mapuche communities view state regulations as “imposed incentives” favouring industry and threatening the environment and cultural survival.¹⁸⁹ State regulation does not reflect community norms as human and environmental protection, contrary to needs and purposes of the public interest.¹⁹⁰ As will be explained later regarding contestation over the meaning of water and development, the state denies the legitimacy of Indigenous laws as forms of regulatory governance. State approval of

¹⁸³ Li, *supra* note 165 at 276.

¹⁸⁴ Yeung, *supra* note 172 at 77-8.

¹⁸⁵ Baldwin, Cave, & Lodge, *supra* note 174 at 22.

¹⁸⁶ Yeung, *supra* note 172 at 77-8.

¹⁸⁷ Boelens & Vos, *supra* note 180 at 23.

¹⁸⁸ *Ibid.*

¹⁸⁹ Prieto, “Equity vs. Efficiency”, *supra* note 179 at 5.

¹⁹⁰ *Ibid.*

extractive development degrades the environment and supports incremental dispossession of land to further extractive practices.

As such, private interests in natural resource extraction can “capture” the role of regulators, and unfairly influence motivations in decision-making.¹⁹¹ In contrast to the public interest, self-interested groups like politicians, industry, citizen groups, or bureaucrats, are viewed as actors primarily concerned with personal benefit. Within this regulatory governance scheme, public and private actors merely compete for advantage of the regulatory state to advance the interests of their group.¹⁹² While Chile introduced public interest provisions for priority uses, it is unclear what role these will play in promoting “equilibrium between efficiency and security in productive water uses” without a clear public law framework.¹⁹³

A key argument provided by private-interest perspectives is the concept of “regulatory capture”, where a decentralized public is always ever subordinate to organized control of capital used to design and apply regulations promoting the interests of powerful groups.¹⁹⁴ The private-interest critique of public-interest motivations holds true in the case of Chile, especially with lack of a clear public law framework. Industry-state control of regulatory design and application through legislation is traceable to the global spread of regulatory principles and standards.¹⁹⁵

Under the guise of economic expertise, free-market principles originating in the United States, and legally inscribed in Chile by the “Chicago Boys” during Pinochet’s dictatorship, effectively transformed Chile into a privatized export-oriented economy. Adverse environmental effects and human rights violations may be labeled a state failure. But Chile’s domestic

¹⁹¹ Levi-Faur, Kariv-Teitelbaum, & Medzini, *supra* note 162 at 19.

¹⁹² *Ibid* at 20.

¹⁹³ Elizabeth Macpherson et al, “Evolving rights to (and of) water in Chile: a case for relationship-based water law and governance” (2023) *The International Journal of Human Rights* 1 at 19-20, DOI: 10.1080/13642987.2023.2266719.

¹⁹⁴ Levi-Faur, Kariv-Teitelbaum, & Medzini, *supra* note 162 at 20.

¹⁹⁵ John Braithwaite & Peter Drahos, *Global Business Regulation* (Cambridge University Press, 2000) at 550.

regulation of water and natural resources points to webs of continuing international influence, especially in the EU.¹⁹⁶

Institutional perspectives on regulation ask how methods of governance shape “social relations of control over water” to the detriment of the public interest.¹⁹⁷ Regulatory structures draw attention to power relations embedded in legally inscribed rules.¹⁹⁸ The state-authorized privatization of water rights “has worked towards monopolization of water rights in the hands of elites and few powerful companies”,¹⁹⁹ and “encouraged strategies of accumulation...disregard[ing] the wider public interest.”²⁰⁰

Understanding underlying power relations inscribed in law reveals that “disparities in allocation, rather than scarcity”, primarily drive water access inequalities through economic influence and overextraction.²⁰² Institutional perspectives that explain regulatory capture argue “that regulatory capture of rule-makers can be restrained and even overcome under the right regulatory design”.²⁰³

According to Ostrom’s socio-ecological analysis of common goods and institutions, local normative processes for regulating the use of water were displaced by top-down state-centralized approaches.²⁰⁴ Yet at the same time, the centralized oversight body, the General Water

¹⁹⁶ Black, *supra* note 169 at 3, 8-9.

¹⁹⁷ Jessica Budds, “Gobernanza del agua y Desarrollo bajo el mercado: las relaciones sociales de control del agua en el arco del Código de Aguas de Chile/ Water Governance and Development under the market: social relations of water control within the Chilean Water Code framework” (2020) 59 *Investigaciones Geográficas* 16 at 23.

¹⁹⁸ *Ibid.*

¹⁹⁹ Boelens & Vos, *supra* note 180 at 23-4.

²⁰⁰ Jessica Budds, “Securing the market: Water security and the internal contradictions of Chile’s Water Code” (2020) 113 *Geoforum* 165 at 173.

²⁰² Cristy Clark & Erin O’Donnell, “Property in Water?” in Nicole Graham, Margaret Davies, & Lee Godden, eds, *The Routledge Handbook of Property, Law and Society* (Routledge, 2023) 276 at 277.

²⁰³ Levi-Faur, Kariv-Teitelbaum, & Medzini, *supra* note 162 at 22.

²⁰⁴ Braithwaite & Drahos, *supra* note 195 at 553-54; Elinor Ostrom, *The Future of the Commons: Beyond Market Failure and Government Regulation* (London, UK: The Institute of Economic Affairs, 2012) at 75.

Directorate, exercises limited oversight powers regarding water user organizations.²⁰⁵ According to Black's analytical framework for institutions, the state intentionally "decentres" oversight beyond the state's command and control.²⁰⁶ Private water user organizations oversee water management at the local scale.²⁰⁷

Creation of decentred governance is not "polycentric" in Ostrom's sense of including "overlapping units to monitor performance, obtain reliable information, and cope with large-scale resources".²⁰⁸ Extractive industry elites with connections to policymaking control democratic participation, disabling local autonomy in decision-making about rules.²⁰⁹ Public and private are fragmented in terms of knowledge exchange, while industry-state networks facilitate financial capacity and political lobbying to continue self-regulation.²¹⁰

Concurrent with the rise of the regulatory state,²¹¹ is an "intense focus on law and institutions", especially the influence of international economic institutions, like the World Bank and International Monetary Fund (IMF).²¹² Chile continues to function under the Chicago Boys' decentered-privatized governance framework of "ad hoc regulations for the deregulation of resources".²¹³ Regulation of water occurs as a product of "webs of influence" between corporate-state-international networks, and the co-production and reinforcement of associated legal norms for resource extraction within market-focused governance structures.²¹⁴ As will be critically

²⁰⁵ Alejandro Vergara & Daniela Rivera, "Legal and Institutional Framework of Water Resources" in Guillermo Donoso, ed, *Water Policy in Chile* (Springer Nature, 2018) 67 at 78; See also Samantha Andison, "Water (in)Access in Chile: The Human Rights Limitation of Granting a Property Right to Water" (2023) 26 Trinity CL Rev 182 at 192.

²⁰⁶ Black, *supra* note 169 at 3.

²⁰⁷ Vergara & Rivera, *supra* note 205 at 80.

²⁰⁸ Ostrom, *supra* note 204 at 82.

²⁰⁹ *Ibid.*

²¹⁰ Black, *supra* note 169 at 5, 31.

²¹¹ See Yeung, *supra* note 172 at 65.

²¹² Kerry Rittich, *Recharacterizing Restructuring: Law, Distribution and Gender in Market Reform* (Kluwer Law International, 2002) at 4-5.

²¹³ Romero-Toledo, "Extractivismo", *supra* note 142 at 6.

²¹⁴ Black, *supra* note 169 at 7-8; Braithwaite & Drahos, *supra* note 195 at 550-51.

explored later, “general prescriptions” aim to reinforce existing free-market principles by “articulating and normalizing a set of legal rules and institutions, a particular set of state practices, and a distinct culture concerning the responsibilities of different actors and institutions within market societies”.²¹⁵ Reregulation through international economic law continues,²¹⁶ as Chile recently modernized their free-trade and foreign-investment treaty obligations with the EU.

Supplementing this analysis, Macpherson frames the conflict between Indigenous rights to water vs. extractive industries’ private rights through cultural, historical, and economic effects felt by Mapuche and Aymara communities.²¹⁹ For example, owners of water rights self-organize according to a common watercourse (river to sea), reservoir, or dam.²²⁰ Due to historic land dispossession, Mapuche and Aymara are excluded from these organizations from lack of water rights. Regulatory capture by industry compounds lack of water and territorial rights, by actively hindering *Water Code* reform towards redistribution and protection of Indigenous rights to water.²²¹ The following section provides a brief description of Chilean regulation of water, and changes brought about under Pinochet’s dictatorship.

B) Brief History of Water Regulation in Chile

²¹⁵ Rittich, *supra* note 212 at 3, 5.

²¹⁶ Sergio Puig, “International Indigenous Economic Law” (2019) 52:3 UC Davis Law Review 1243.

²¹⁹ Macpherson, *supra* note 41 at 161.

²²⁰ Guillermo Donoso, “Management of Water Resources in Agriculture in Chile and British Challenges” (2021) 48:3 International Journal of Agriculture and Natural Resources 171 at 177.

²²¹ Juan Jorge Faundes Peñafiel (trans. Nancy Postero), “The Constituent Process in Chile (2019-2022) from the Perspective of Indigenous Peoples”, in Katharina Ruckstuhl et al, eds, *The Routledge Handbook of Indigenous Development* (Routledge, 2023) 113 at 118; Catherine Osborn, “How Chile’s Constitution Revolution Missed the Mark” (2022) online: *Foreign Policy* <<https://foreignpolicy.com/2022/09/09/chile-constitution-referendum-results-reject-boric/>>.

Cited by Marin, Carl Bauer describes water legislation in Chile as a pendulum, oscillating in state history between public good or private right.²²² In colonial times, private canal associations regulated water use, while the post-independence civil code returned its status to a public good.²²³ After several oscillations, Chile established its first *Water Code* in 1951 in response to overuse of watercourses. The 1951 *Water Code* allowed acquisition of “derecho[s] de aprovechamiento” (“use and enjoyment rights”) through a grant from the President of the Republic.²²⁴

These rights were contingent on land title, limiting transferability of use rights.²²⁵ As part of agrarian reform in 1967, the state amended the *Water Code* to encourage redistribution of water rights to small landowners, and to modernize agricultural production. It declared all water to be “bienes nacionales de uso publico” (national property for public use), where private use rights could be expropriated for public use.²²⁶ Notably, water rights were made separate from land tenure, allowing public administration to transfer use rights apart from land ownership.²²⁷

Briefly through the late 1960s and early ‘70s, a Directorate of Indian Affairs and Institute for Indigenous Development led agrarian reform projects for restitution of land in purview of Spanish colonialism.²²⁸ However, these initiatives were overturned with General Augusto Pinochet’s legal decree in 1979. Land reappropriated for Indigenous peoples was returned under military pressure, stating these laws violated “the most basic of human rights, property”.²²⁹

²²² Amaya Alvez Marin, “Constitutional Challenges of the South: Indigenous Water Rights in Chile, Another Step in the ‘Civilizing Mission?’” (2016) 33 Windsor Y B Access Just 87 at 95.

²²³ *Ibid.*

²²⁴ Macpherson, *supra* note 41 at 169-70.

²²⁵ *Ibid* at 170.

²²⁶ *Ibid.*

²²⁷ *Ibid* at 171.

²²⁸ *Ibid.*

²²⁹ Parmo, *supra* note 107 at 97.

From 1973-1990, Pinochet's authority transformed the government-distributed water rights system to a wholly privatized regime relying on market distribution of use rights.²³⁰ The privatization of water as a commodity induced competition over a shared resource and encouraged exploitation of a formerly common good.²³¹ A group of Chilean economists educated at the University of Chicago (the "Chicago Boys"), applied free-market libertarian principles in proposing economic reform for the natural resource sector. They argued privatization and commodification of water would facilitate efficient pricing and encourage growth, thereby increasing market security and productivity.²³² In redistributing water rights under market principles, the stated logic allocates water to high-value users who would sell water if no longer needed.²³³

By 1974, the Chicago Boys effectively controlled most state economic planning.²³⁴ Their proposed economic program was officially adopted in 1979 after their leader was appointed Minister of Economy in 1975.²³⁵ With support from the Industrial Development Association, and political linkages with Pinochet's military, they became central allies of the dictatorship through appointments to the National Planning Office.²³⁶ In countering the so-called "excessive power of the state" and "low growth" of the economy,²³⁷ the Chicago Boys' aimed to promote privately

²³⁰ Macpherson, *supra* note 41 at 171.

²³¹ Budds, "Gobernanza", *supra* note 197 at 24.

²³² Jessica Budds, "Water, power, and the production of neoliberalism in Chile, 1973-2005" (2013) 31 *Environment and Planning D: Society and Space* 301 at 306; Ingo Gentes & Pablo Policzer, "Weakness by design: neoliberal governance over mining and water in Chile" (2022) *Territory, Politics, Governance* 1 at 5, DOI: 10.1080/21622671.2022.2134196.

²³³ Budds, "Water, power", *supra* note 232 at 306.

²³⁴ Patricio Silva, "Technocrats and Politics in Chile: From the Chicago Boys to the CIEPLAN Monks" (1991) 23:2 *Journal of Latin American Studies* 385 at 392.

²³⁵ Budds, "Water, power", *supra* note 232 at 305-07.

²³⁶ *Ibid* at 305.

²³⁷ Gentes & Policzer, *supra* note 232 at 5.

managed water rights to facilitate export-oriented trade of water-intensive natural resources like copper, timber, fruit, and fish.²³⁸

Water use rights are real property under article 6 of the *Water Code*, capable of being bought and sold as a commodity.²³⁹ The *Water Code* allocates new water rights at no cost through the General Water Directorate (Dirección General de Aguas, “DGA”), incentivizing hoarding for future land speculation and trade between users.²⁴⁰ As a measure to stop water rights hoarding, the DGA introduced non-use tariffs in 2005 on consumptive and non-consumptive water rights. However, non-use tariffs incentivize overextraction under the market-based logic of efficient use during scarcity.²⁴¹

Before 2022, no priorities were set for distributing rights to water users, with those better resourced and organized more effective in obtaining water rights.²⁴² The 2022 amendment to the *Water Code* introduced priority allocation for “public interest” uses under Article 5, including “ecosystem preservation”, “human consumption and sanitation”, and “sustainability of aquifers”.²⁴³ While specification of use is required, transferability of water rights is not limited by use, where agriculture, mining, or tourism uses can change with transfer of water rights.²⁴⁴ Most rights holders are economically powerful industry actors in agriculture, mining, aquaculture, and hydroelectric development.²⁴⁵

²³⁸ Budds, “Water, power”, *supra* note 232 at 306.

²³⁹ Macpherson, *supra* note 41 at 173.

²⁴⁰ Budds, “Water, power”, *supra* note 232 at 307.

²⁴¹ Donoso, *supra* note 220 at 176; Sascha M. Cornejo P. & Jörg Niewöhner, “How Central Water Management Impacts Local Livelihoods: An Ethnographic Case Study of Mining Water Extraction in Tarapacá, Chile” (2021) 13:3542 *Water* 1 at 6.

²⁴² Cornejo P. & Niewöhner, *supra* note 241 at 6; Macpherson et al, *supra* note 193 at 19.

²⁴³ Macpherson et al, *supra* note 193 at 19.

²⁴⁴ Macpherson, *supra* note 41 at 172.

²⁴⁵ Luz Karime Sánchez Galvis et al, “Gobernanza del agua y desafíos emergentes para estructuras normativas e institucionales rígidas: un análisis desde el caso chileno/ Water governance and emerging challenges for rigid regulatory and institutional structures: an analysis from the Chilean case” (2018) 70 *Revista del CLAD Reforma y Democracia* 199 at 220.

Water rights are individually held, either by single farmers, members of a channel association, or those owning irrigation or hydroelectric infrastructure.²⁴⁶ Water user organizations sharing irrigation infrastructure are responsible for collection and allocation among their members on a standard of litres per second (L/s).²⁴⁷ User organizations include surveillance boards that oversee water use and distribution according to rights of each user.²⁴⁸

The DGA's main regulatory role is distributor of new rights, based on available hydrological data.²⁴⁹ As part of the Ministry of Public Works, the DGA is responsible for managing records of allocated water rights in the Public Water Registry, leading measurement and technical planning of watercourses, and monitoring water user organizations.²⁵⁰ The DGA has low oversight powers with respect to rights negotiations and transactions.²⁵¹ Water user organizations resolve conflicts arising from overlapping use privately, often resorting to courts.²⁵³

As such, the Public Water registry lacks precise information on extraction volume and types of water use, as most water rights are allocated and circulating the market.²⁵⁷ In 2017, estimated unallocated surface water was at 10%, while unallocated groundwater rights were 40%.²⁵⁸ The disconnection between state oversight and private allocation affects monitoring of water availability, leading to intensified conflicts from overallocation of water.²⁵⁹

²⁴⁶ Carlos Bopp et al, "Collective Actions and Leadership Attributes: A Cluster Analysis of Water User Associations in Chile" (2022) 2250003 Water Economics & Policy 1 at 5.

²⁴⁷ Budds, "Gobernanza", *supra* note 197 at 24; at 1.

²⁴⁸ Bopp et al, *supra* note 246 at 4; Budds, "Gobernanza", *supra* note 197 at 22.

²⁴⁹ Cornejo P. & Niewöhner, *supra* note 241 at 6.

²⁵⁰ Donoso, *supra* note 220 at 177.

²⁵¹ Bopp et al, *supra* note 246 at 4.

²⁵³ Budds, "Gobernanza", *supra* note 197 at 22; Vergara & Rivera, *supra* note 205 at 82.

²⁵⁷ Donoso, *supra* note 220 at 179.

²⁵⁸ Macpherson, *supra* note 41 at 206.

²⁵⁹ Donoso, *supra* note 220 at 179.

Chile's administrative system suffers from deficiencies in coordination and public participation.²⁶¹ Self-organized user associations are composed solely of water rights holders. Due to historical revocation of Mapuche and Aymara rights to territory and waters, they are effectively excluded from local engagement with water policy governance.²⁶² Protections for private water rights holders are inscribed in the constitution through the right to property, unlike ancestral rights of Mapuche, Aymara, and other Indigenous peoples.²⁶³

Distrust between Indigenous peoples and the state, a lack of judicial expertise in water law, and the expense of litigation, indicate structural issues in fair legal means of conflict resolution.²⁶⁴ Water scarcity and drought are tied to hoarding and overexploitation of water by mining, agricultural, and fishing industries. Gradual reduction of overall water levels impacts surrounding Mapuche communities in the central and southern regions, and Aymara peoples in the north.²⁶⁵ Yet under article 141 of the *Water Code*, applications for water rights cannot result in third-party effects.²⁶⁶

A 2013 study by the World Bank observes that despite 43 institutions involved in water management, fragmentation and implementation gaps prevent regional and integrated decision-making regarding aquatic ecosystems' interconnected functioning.²⁶⁷ Management does not

²⁶¹ Budds, "Gobernanza", *supra* note 197 at 21; See also Anahí Urquiza et al, "Gobernanza policéntrica y problemas ambientales en el siglo XXI: desafíos de coordinación social para la distribución de recursos hídricos en Chile/Polycentric governance and environmental problems in the 21st century: challenges of social coordination of the distribution of water resources in Chile" (2019) 33:1 *Persona y Sociedad* 133.

²⁶² Elizabeth J. Macpherson & Pia Weber Salazar, "Towards a Holistic Environmental Flow Regime in Chile: Providing for Ecosystem Health and Indigenous Rights" (2020) 9:3 *Transnational Environmental Law* 481 at 492.

²⁶³ Galvis, at 220.

²⁶⁴ Budds, "Gobernanza", *supra* note 197 at 22.

²⁶⁵ Macpherson & Salazar, *supra* note 262 at 492.

²⁶⁶ Donoso, *supra* note 220 at 176.

²⁶⁷ Clara Tinoco et al, "Water Resources Management in Mexico, Chile and Brazil: Comparative Analysis of Their Progress on SDG 6.5.1 and the Role of Governance" (2022) 14 *Sustainability* 1 at 6.

consider surface and groundwater interactions, and cumulative effects that can only be accurately measured at the regional and watershed scale.²⁶⁸

For example, the northern and central regions of Chile are managed as independent sections, “with no obligation to conserve flows for downstream sections”.²⁶⁹ As determined by the Ministry of Environment, minimal acceptable hydrological flows consider physical factors impacting volume extracted per water user, but not interacting regional effects.²⁷⁰ The lack of coordination between user organizations and their corresponding sections of rivers and aquifers ignores key connections between hydrological systems linked through surface and groundwater.²⁷¹

In cases of extreme drought, frequent in the dry northern regions, the state may declare exceptional water stress situations by region but without acknowledging anthropogenic causes of water scarcity. State decrees are based on physical characteristics like “rainfall, river flows, reservoir quantities and the condition of the water basins”, not explicit impacts by human activities.²⁷² At the same time, the DGA’s Public Registry largely misrepresents allocated use rights according to industry sector, in failing to accurately monitor L/s changes in extraction rates when rights are transferred between users.²⁷³

No formal public forums exist to allow interaction between state institutions and the public.²⁷⁴ Without coordinated decision-making between state, private, and public entities, Chile

²⁶⁸ *Ibid* at 10; Gentes & Policzer, *supra* note 232 at 6.

²⁶⁹ Donoso, *supra* note 220 at 181.

²⁷⁰ Tinoco et al, *supra* note 267 at 11.

²⁷¹ Budds, “Gobernanza”, *supra* note 197 at 22.

²⁷² Cornejo P. & Niewöhner, *supra* note 241 at 9.

²⁷³ Donoso, *supra* note 220 at 181.

²⁷⁴ Budds, “Gobernanza”, *supra* note 197 at 22.

is weak in its ability to manage monitoring of regional ecologies which require information exchange on interacting flow regimes.²⁷⁵

The *Water Code* was developed and enacted without any democratic participation.²⁷⁶ After counter-agrarian reform under Pinochet, Indigenous peoples could not obtain new rights, including rights to use water on their land from private owners. The only other option was “regularization” of unregistered customary uses from continuous use and occupation of land. However, obtaining rights from occupation requires proof of continuous use for a five-year period, difficult to demonstrate with ongoing dispossession of territory and often violent land encroachment.²⁷⁷

Leading up to the end of Pinochet’s dictatorship in the 1990s, future President Patricio Aylwin Azocar signed an agreement with Indigenous peoples, including Mapuche and Aymara, promising four policies: “[1] constitutional recognition of Indigenous peoples and their economic, social and cultural rights, [2] the establishment of a national Indigenous development corporation and fund for Indigenous ethnodevelopment to promote the economic, social and cultural development of Indigenous peoples, and [3] the creation of a special commission for Indigenous peoples to advise the government on Indigenous issues”.²⁷⁸ Despite Supreme Court recognition of ancestral rights as equivalent to constitutional protection of private property in 2004,²⁷⁹ continued procedural issues hinder effective implementation and protection of Mapuche and Aymara peoples’ right to water.²⁸⁰

²⁷⁵ Tinoco et al, *supra* note 267 at 11.

²⁷⁶ Macpherson, *supra* note 41 at 173.

²⁷⁷ *Ibid* at 173-74.

²⁷⁸ *Ibid* at 166.

²⁷⁹ Mercedes Julia Huenteao Beroiza, *supra* note 76 at para 34(7).

²⁸⁰ Marin, *supra* note 16 at 95.

To better understand how the state facilitates water conflict in agriculture, mining, and aquaculture across Chile, we can examine Chile's regulatory framework for each natural resource, corresponding effects on Mapuche and Aymara peoples, and the integral role of water in production.

C) Regulation of Agriculture in Central and Southern Chile

Chile's agricultural economy consumes 72% of total available water in the country.²⁸¹ Since Pinochet, land use in south-central Chile largely transitioned from subsistence agriculture to irrigation intensive farming and non-native tree plantations.²⁸² Modern irrigation infrastructure and the ratification of international economic treaties are two key factors driving agricultural development, particularly in eucalyptus and pine for timber and pulp exports, and the recent boom in avocado exports.²⁸³ The majority of water rights transactions are between large agribusiness entities, reproducing inequalities between those with and without water rights.²⁸⁴

State promotion of forestry originates with Pinochet's 1974 Decree Law 701 ("DL701"), which offered tax exemptions and subsidies for plantations' integration with the export market.²⁸⁵ From 1974-2013, 70% of these funds went to multinational companies ARAUCO and Mininco, leading to an almost fivefold increase in total hectares of plantation territory.²⁸⁶

²⁸¹ Madariaga, Maillet, & Rozas, *supra* note 72 at 7.

²⁸² Maite Berasaluce et al, "Social-Environmental Conflicts in Chile: Is There Any Potential for an Ecological Constitution?" (2020) 13 Sustainability 1 at 4.

²⁸² Alejandro Mora-Motta et al, "Between Extractivism and Conservation: Tree Plantations, Forest Reserves, and Peasant Territorialities in Los Ríos, Chile", in Felix Fuders & Pablo J. Donoso, eds, *Ecological Economic and Socio Ecological Strategies for Forest Conservation: A Transdisciplinary Approach Focused on Chile and Brazil* (Springer, 2020) 99 at 122.

²⁸³ Madariaga, Maillet, & Rozas, *supra* note 72 at 7.

²⁸⁴ Donoso, *supra* note 220 at 180; Alexander Panez, Ilka Roose, & Rodrigo Faúndez, "Agribusiness Facing British Limits: The Re-Design of Neoliberalization Strategies in the Exporting Agriculture Sector in Chile" (2020) 9:66 Land 1 at 9.

²⁸⁵ Cerda, Gallardo-Cobos, & Sánchez-Zamora, *supra* note 70 at 2.

²⁸⁶ Alvaro Hofflinger et al, "Do Large-Scale Forestry Companies Generate Prosperity in Indigenous Communities? The Socioeconomic Impacts of Tree Plantations in Southern Chile" (2021) 49 Human Ecology 619 at 622.

Agribusiness elites invested state subsidies toward acquisition of cheap land and labour from impoverished Mapuche.²⁸⁷ Eucalyptus and pine plantations concentrated in south-central Bío Bío, Araucanía, and Los Lagos expanded to meet pulp and timber demand in the global North.²⁸⁸

Timber is Chile's second-largest exported commodity after minerals.²⁸⁹ The state exports over 50% of timber and pulp produced from private plantations to countries like the US, and the EU.²⁹⁰ Eucalyptus and pine are not native to Chile, requiring greater quantities of groundwater to grow.²⁹¹ Before industrial irrigation was built, agriculture focused on cereals, which require relatively little water.²⁹²

A common practice in agribusiness to increase productivity is irrigation development.²⁹³ Beginning with private canals in the Spanish colonial period, the competitive intention behind building large-scale irrigation is to strengthen private industry control over a region.²⁹⁴ Indeed, early colonial surface water management by self-organized users did not include individual use of groundwater, leading to overextraction, gradual reduction in outputs, and subsequent public controls.²⁹⁵ Even today, far fewer groundwater user organizations exist than surface water.²⁹⁶

²⁸⁷ Mora-Motta & Stellmacher, *supra* note 31 at 137.

²⁸⁸ F. Benra et al, "Ecosystem services tradeoffs arising from non-native tree plantation expansion in southern Chile" (2019) 190 *Landscape and Urban Planning* 1 at 2; Alejandro Mora-Motta, "Plantaciones forestales en Chile: ¿hacia un modelo más sustentable?/ Forest plantations in Chile: towards a more sustainable model?" (2018) 22:2 *Gestión y Ambiente* 100 at 100.

²⁸⁹ Hofflinger et al, *supra* note 286 at 622.

²⁹⁰ Mora-Motta, "Plantaciones Forestales", *supra* note 288 at 100; Hernán Cuevas Valenzuela & Günter Grosser, "¿El nuevo espíritu del capitalismo? Análisis de los discursos de Empresas Arauco y CMPC (2003-2018)/ A New Spirit of Capitalism? A Critical Content Analysis of the Discourses of Empresas Arauco and CMPC" (2021) 39:117 *Estudios Sociológicos* 793 at 795; Manuel González-Gómez, "Dynamics of pulp exports from South America to the European Union" (2019) 4 *Austrian Journal of Forest Science* 313 at 316.

²⁹¹ Francisco Pérez Hernández, "¿El agua es vida? Cotidianidad y territorialidad en el context forestall y de escasez hídrica en la comunidad Mapuche-huilliche Antü Wilef, San Juan de la Costa, Chile/ Water is life? Daily life and territoriality in the context of forest and water scarcity in the Mapuche-huilliche community Antü Wilef, San Juan de la Costa, Chile" (2022) 20 *Agua y Territorio* 73 at 78.

²⁹² Ilka Roose & Alexander Panez, "Social Innovations as A Response to Dispossession: Community Water Management in View of Socio-Metabolic Rift in Chile (2020) 12:566 *Water* 1 at 10-11.

²⁹³ Panez, Roose, & Faúndez, *supra* note 284 at 2, 14.

²⁹⁴ *Ibid* at 14.

²⁹⁵ Donoso, *supra* note 220 at 180.

²⁹⁶ *Ibid*.

Associated legislation refers to non-native tree species as “planted forests” (bosques plantados); a misleading description of monoculture plantations.²⁹⁷ Trees are harvested to market demand and do not function as biodiverse native forests in regenerating water.²⁹⁸ Studies in Central and Southern Chile show that monoculture plantations reduce surrounding biodiversity.²⁹⁹ Multiple decades of timber production through pine and eucalyptus have reduced water levels in underground reservoirs.³⁰⁰

In 2010, Chile established a “green growth” policy after joining the Organization for Economic Cooperation and Development (OECD).³⁰² This further legitimized a contradictory logic of removing native flora to plant water-intensive non-native species.³⁰³ As a rhetorical discourse under the logic of sustainable development, plantations are treated as a key national source of economic growth and poverty alleviation,³⁰⁴ and are planted to stabilize lands with eroded soil.³⁰⁵ On the contrary, corresponding government subsidies to the forestry industry provide necessary economic capacity for plantation expansion into rural subsistence lands, impacting water supply.³⁰⁶

In central Chile, the recent rise of avocado tree plantations exacerbates the national water crisis.³⁰⁷ Among major avocado-producing countries worldwide, Chile ranks second behind

²⁹⁷ Mora-Motta, “Plantaciones forestales”, *supra* note 288 at 101; Andreas C. Braun, “Deforestation by Afforestation: Land Use Change in the Coastal Range of Chile” (2022) 14:1686 Remote Sensing 1 at 21.

²⁹⁸ Mora-Motta, “Plantaciones forestales”, *supra* note 288 at 104; Braun, “Deforestation”, *supra* note 297 at 21.

²⁹⁹ Andreas Ch. Braun et al, “Assessing the impact of plantation forestry on plant biodiversity: A comparison of sites in Central Chile and Chilean Patagonia” (2017) 10 Global Ecology and Conservation 159 at 171.

³⁰⁰ Andrés Iroumé, Julia Jones, & James C. Bathurst, “Forest operations, tree species composition and decline in rainfall explain runoff changes in the Nacimiento experimental catchments, south central Chile” (2021) 35 Hydrological Processes 1 at 1.

³⁰² Mora-Motta, “Plantaciones forestales”, *supra* note 288 at 101.

³⁰³ *Ibid* at 104.

³⁰⁴ *Ibid* at 101-02.

³⁰⁵ Braun, “Deforestation”, *supra* note 297 at 21.

³⁰⁶ Mora-Motta et al, “Between Extractivism”, *supra* note 283 at 122.

³⁰⁷ Madariaga, Maillet, Rozas, *supra* note 72 at 7.

Mexico, and tied with Brazil, in terms of water stress conditions.³⁰⁸ Behind increased water use is an international boom in avocado consumption.³⁰⁹ From 1995 to 2017, Chile's avocado exports multiplied eight times, now constituting 70% of Chile's total fruit exports.³¹⁰ EU countries are the largest importers of Chilean avocados, with the United Kingdom and the Netherlands ranking first.³¹¹

The Valparaíso region holds the largest surface area of avocado trees.³¹² Petorca province comprises “a quarter of total avocado-planted surface in Chile”,³¹³ with almost 5000ha of irrigated avocado orchards. Yet many nearby towns and villages have no access to water.³¹⁴ During the avocado boom of 2000-2009, groundwater allocation in Valparaíso region dramatically increased.³¹⁵ Rural Chileans acknowledged agribusiness as a necessary source of employment, yet local agribusiness associations actively quell protest through spread of information that shifts responsibility for water scarcity. In blaming other actors like the state, or external circumstances like climate change and reduced rainfall, they attempt to avoid being characterized as a major cause of the water crisis.³¹⁶

Intervention by private industry to divert or extract river and groundwater enables the economic viability of non-native tree plantations.³¹⁷ The state effectively serves a subsidiary role to agribusiness in promoting agro-export policy and building irrigation infrastructure.³¹⁸ For

³⁰⁸ Ruben Sommaruga & Honor May Eldridge, “Avocado Production: Water Footprint and Socio-economic Implications” (2020) 20:2 EuroChoices 48 at 49.

³⁰⁹ Madariaga, Maillet, Rozas, *supra* note 72 at 6.

³¹⁰ *Ibid.*

³¹¹ Dario Caro et al, “Global virtual water trade of avocado” (2021) 285 Journal of Cleaner Production 1 at 5.

³¹² Cristian Youlton et al, “Quantification and control of runoff and soil erosion on avocado orchards on ridges along steep-hillslopes” (2010) 37:3 Cien. Inv. Agr. 113 at 113.

³¹³ Madariaga, Maillet, Rozas, *supra* note 72 at 6.

³¹⁴ Berasaluce et al, *supra* note 282 at 4.

³¹⁵ Madariaga, Maillet, Rozas, *supra* note 72 at 11-12.

³¹⁶ *Ibid* at 12.

³¹⁷ Panez, Roose, & Faúndez, *supra* note 284 at 14.

³¹⁸ *Ibid* at 8.

example, the National Irrigation Commission (an arms-length agency of the Ministry of Agriculture), is entrusted with the duty to promote private investment in irrigation and drainage infrastructure.³¹⁹ The National Irrigation Commission's purpose as stated in its enabling statute, Irrigation Promotion Law 18,450 (Ley de Fomento al Riego), is to improve irrigation efficiency by increasing total irrigated area, not to maintain water availability for current agricultural area.³²⁰ As the primary government agency responsible for assessing use of public resources, a Budget Office policy review questions the justification of this policy in finding an absence of market failure.³²¹

Approximately 60% of Chile's agricultural market is produced through irrigated land.³²² Groundwater sources for mining in the north and agribusiness in central regions have taken on particular importance.³²³ A national deficit in surface water resulted in an estimated 4350% increase of groundwater rights grants from 2001 to 2017.³²⁴ The Limarí basin in north-central Chile comprises one of the largest irrigation systems, with a 700km channel network flowing into south-central Petorca.³²⁵ Compounded by a lasting drought since 2010, overextraction continues to outpace groundwater recharge, making irrigation necessary for agriculture.³²⁶

Private agribusiness plays a strong role in Chile's agricultural policy and is heavily integrated with global value chains.³²⁷ Protection of property rights enshrined in the 1980

³¹⁹ Donoso, *supra* note 220 at 177-78.

³²⁰ *Ibid* at 178; Panez, Roose, & Faúndez, *supra* note 284 at 9.

³²¹ Panez, Roose, & Faúndez, *supra* note 284 at 9.

³²² Donoso, *supra* note 220 at 171.

³²³ *Ibid* at 174.

³²⁴ *Ibid* at 172.

³²⁵ A. Nauditt et al, "Hydrochemical and Tracer Monitoring to Assess Runoff Generation from Semiarid Andean Headwater Catchments" in Diego A. Rivera, Alex Godoy-Faundez, Mario Lilo-Saavedra, eds, *Andean Hydrology* (Taylor & Francis, 2018) 181 at 182-83.

³²⁶ Donoso, *supra* note 220 at 181; Ariel A. Muñoz et al, "Water Crisis in Petorca Basin, Chile: The Combined Effects of a Mega-Drought and Water Management" (2020) 12:648 *Water* 1 at 2.

³²⁷ Madariaga, Maillet, Rozas, *supra* note 72 at 5.

constitution,³²⁸ and state-promoted subsidies to irrigation infrastructure originate with preferences of large landowners who supported free market policies. An amalgam of large agricultural producers, The National Society of Agriculture, donated in support of Pinochet's land reforms. The government currently offers top-ups to private investors in the form of irrigation subsidies often as high as 70-90%.³²⁹

Past attempts to reform the *Water Code* are hindered by continued political linkages between government and agribusiness, preventing policies that support human consumption or subsistence agriculture. In 2014 elections, agribusiness donated to right-wing campaigns and had participating representatives. These parties strongly oppose reforming regulation of water and hold control over popular media and public opinion.³³⁰

Former public servants are often invited to positions in industry, prevalent in federal regulatory bodies. Even after leaving office, these authorities lobby against water regulation reform.³³¹ For example, during discussion of 2018 reforms, the National Society of Agriculture led a publishing campaign in major Chilean business journals, claiming that reform constituted de facto expropriation.³³² President Piñera took hold of these past attacks, characterizing regulation reform as facilitating legal uncertainty and political-economic instability. Yet free market policies grounded in Pinochet's *Water Code* serve to benefit large agribusiness to the detriment of traditional subsistence agriculture. Market distribution of water rights, state subsidies, and tax exemptions favour large commercial forestry companies.³³³

³²⁸ Parmo, *supra* note 107 at 97.

³²⁹ Madariaga, Maillet, & Rozas, *supra* note 72 at 8-9.

³³⁰ *Ibid* at 9.

³³¹ *Ibid* at 9-10.

³³² *Ibid* at 10.

³³³ Hofflinger et al, *supra* note 286 at 621.

D) Agribusiness Effects on Mapuche Peoples

Since the 1990s, grassroots Mapuche organizations like Consejo de Todas las Tierras (CTT) peacefully advocate for recovery of land against forestry companies.³³⁴ At the same time, the 1997 burning of ARAUCO-owned trucks in Lumaco, Araucanía by Coordinadora Arauco Malleco (CAM) marks a turning point in assertions of self-determination against forestry's detrimental effect on the environment, and the rights of Mapuche peoples.³³⁶ As a demonstration against territorial encroachment and toward land reoccupation, the Lumaco incident responded to ongoing effects of forestry monoculture on water access for subsistence practices. In the experience of communities, replacement of native forest breaks relations between “*menokos* (water springs)”, the “drainage of *chayakos* (water coming from rocks)”, and “*trayenkos* (waterfalls)”.³³⁸ In 2006, the first Mapuche march for defence of waters in Araucanía directly addressed pine and eucalyptus plantations' overextraction of water.³³⁹

Traditional subsistence practices depend on regenerative relationships between humans, water, and other living beings through care.³⁴⁰ For example, Mapuche community members of Antü Wilef in south-central Los Lagos plant Chilco as a natural water purifier for humans and animals.³⁴¹ One community member notes “Cuidar el agua...sin agua, no hay vida” (“Take care of water...no water, no life”).³⁴² Mapuche grassroots organizations aim at recovering and promoting practices governed by reciprocity to aid regeneration of soil and water sources

³³⁴ Viera-Bravo, “*Küme mongen*”, *supra* note 56 at 9.

³³⁶ Fernando Pairicán Padilla, “Lumaco: La Cristalización del Movimiento Autodeterminista Mapuche/ Lumaco: The Maturation of the Mapuche Self-Determinist Movement” (2013) 17:1 *Revista de Historia Social y de las Mentalidades* 35 at 36.

³³⁸ Torres et al, *supra* note 18 at 166.

³³⁹ *Ibid* at 151.

³⁴⁰ FP Hernández, *supra* note 291 at 75.

³⁴¹ *Ibid* at 80; Skewes et al, *supra* note 23 at 386.

³⁴² FP Hernández, *supra* note 291 at 80.

disrupted by monoculture forestry.³⁴³ Practices like sharecropping, incorporating rest times for soil, and fostering biodiverse orchards and nurseries incorporate reciprocity; whether in distribution of fruit harvests and cultivation work, or in exchange of labour, knowledge, and products.³⁴⁴

In contrasting Mapuche and industry relations with land and water, a *longko* of the Lof Temulemu community³⁴⁸ notes that those in power “see the land as a place to extract resources, they are not thinking that one could maintain balance with nature...we are not above the rest. All the trees are organized, the water, the animals, we all depend on each other, so we are just one more [being]”.³⁴⁹

Sustainable relationships between water, soil, and forest enacted through Mapuche subsistence practices are severed as a result of encroaching plantations.³⁵⁰ Land and water are not seen as mere instruments of production, but rather interconnected elements of life to be sustained.³⁵¹ A *longko* of Juan Paillalef community, Araucanía states “*Ñuke Mapu*” (Mother Earth) cannot be for sale: “we cannot be selling our relatives”.³⁵² Experiences of water scarcity are linked to the expansion of forestry into Mapuche territory, continuation of state subsidies, and the concentration of agribusiness in central Chile.

³⁴³ Viera-Bravo, “Principios del *Mapuche Mongen*”, *supra* note 29 at 97.

³⁴⁴ *Ibid* at 99.

³⁴⁸ Frontline Defenders, “Lof Temulemu” (n.d.), online: *Frontline Defenders* <<https://www.frontlinedefenders.org/en/organization/lof-temulemu>>.

³⁴⁹ Jaime Antimil Caniupan, Héctor Nahuelpan Moreno, & Jakelin Curaqueo Mariano, ““We Can No Longer Endure This Cruel Tyranny”: colonialism, Racism, and Mapuche Resistance in Neoliberal Chile” in Juliet Hooker, ed, translated by Giorleny Altamirano Rayo et al, *Black and Indigenous Resistance in the Americas* (Lexington Books, 2020) 67 at 75.

³⁵⁰ FP Hernández, *supra* note 291 at 76.

³⁵¹ *Ibid* at 79-80, 83.

³⁵² Torres et al, *supra* note 18 at 168.

The rising price of water with increasing scarcity and demand³⁵³ dramatically reduces the economic viability of traditional subsistence farming.³⁵⁴ While 99.8% of the population in urban areas have access to safe drinking water,³⁵⁵ only 58% of rural populations have access.³⁵⁶ For example, hydroelectric development in south-central Bío Bío continues to supply urban centers, while Mapuche peoples are forced to migrate further south from water scarcity.³⁵⁷ It is estimated that 35.2% of Indigenous peoples reside in rural areas, where sewage treatment only covers 15% of Mapuche territory south of the Bío Bío River.³⁵⁸ For example, Mapuche-Huilliche communities in the south-central Los Ríos region live on less than 50 litres of water per day, well below the World Health Organization's standard of 120-200 litres per day for survival.³⁵⁹

Agribusiness is concentrated in south-central Bío Bío and Araucanía regions, home to a majority of Mapuche communities.³⁶⁰ One-third of Mapuche live in poverty and in constant threat of violence by industry and state officials alike, under the guise of anti-terrorism laws.³⁶¹ Younger community members move to work on forest plantations with access to water, leaving older adults unable to work on the land.³⁶²

Abandonment of small-scale subsistence farming and animal grazing in central and southern Chile is linked to increasing soil erosion, loss of biodiversity, and scarcity of water.³⁶³ In central Chile, 75% of rural communities in Petorca report decreases in local well-water levels.

³⁵³ Juan Correa-Parra, José Francisco Vergara-Perucich, & Carlos Aguirre-Núñez, "Water Privatization and Inequality: Gini Coefficient for Water Resources in Chile" (2020) 12:3369 *Water* 1 at 2, 11.

³⁵⁴ Parmo, *supra* note 107 at 108; Stefan Schmalz et al, "Challenging three faces of extractivism: the Mapuche struggle and the forestry industry in Chile" (2022) *Globalizations* 1 at 11.

³⁵⁵ Parmo, *supra* note 107 at 86.

³⁵⁶ Cornejo P & Niewöhner, *supra* note 241 at 6.

³⁵⁷ Simon & Parra, *supra* note 76 at 247.

³⁵⁸ Parmo, *supra* note 107 at 86.

³⁵⁹ FP Hernández, *supra* note 291 at 76.

³⁶⁰ Hofflinger et al, *supra* note 286 at 622; Torres et al, *supra* note 18 at 154.

³⁶¹ Hofflinger et al, *supra* note 286 at 622; Schmalz et al, *supra* note 354 at 9.

³⁶² FP Hernández, *supra* note 291 at 80.

³⁶³ Muñoz et al, *supra* note 326 at 2.

As well, an estimated 49% of Chile's total soil is eroded.³⁶⁴ For example, degradation of native forests in Los Lagos decreases water quantity and worsens quality for Mapuche-Huilliche communities of San Juan de la Costa and Mapu Lahual.³⁶⁵ Communities use water delivery trucks and cisterns instead of direct access, financed by relevant municipalities.³⁶⁶ But water access comes at the price of livestock health, as disturbance by roads and trucks prevents access to land suitable for animal grazing.³⁶⁷

Mapuche relationships of care with the land call attention to negative impacts on the environment when these relationships are disrupted.³⁷¹ Irrigation disrupts historical river flows making traditional small-scale agriculture more difficult.³⁷² Non-native tree plantations increase soil erosion rates relative to grasslands and native forests.³⁷³ Water-intensive eucalyptus and pine species consistently decrease water yields in replacing native forests and grasslands.³⁷⁴ They also rely on harmful chemical fertilizers, where contaminated yellow pollen impacts water sources and community health.³⁷⁵ Clear-cutting practices common in tree plantations also increase groundwater extraction causing soil erosion, thereby disrupting groundwater recharge.³⁷⁶

Mapuche are surrounded by privately-owned forests in a “chessboard” occupation of plantations.³⁷⁸ In the words of one *longko*, “Nowadays, the ones invading us are the forestry

³⁶⁴ *Ibid.*

³⁶⁵ FP Hernández, *supra* note 291 at 77; Manuel von der Mühlen et al, “Land Tenure Insecurity and Forest Conservation in Chile: The Case of the Mapuche Huilliche Indigenous Communities in the Coastal Range Rainforests of Mapu Lahual” in Felix Fuders & Pablo J. Donoso, eds, *Ecological Economic and Socio Ecological Strategies for Forest Conservation: A Transdisciplinary Approach Focused on Chile and Brazil* (Springer, 2020) 127.

³⁶⁶ FP Hernández, *supra* note 291 at 83; Cornejo P. & Niewöhner, *supra* note 241 at 6.

³⁶⁷ Padilla, *supra* note 336 at 38.

³⁷¹ Hofflinger et al, *supra* note 286 at 622.

³⁷² Roose & Panez, *supra* note 292 at 4.

³⁷³ Benra et al, *supra* note 288 at 2; Vivian Bonnesoeur et al, “Impacts of forests and forestation on hydrological services in the Andes: A systematic review” (2019) 433 *Forest Ecology and Management* 569 at 573.

³⁷⁴ Bonnesoeur et al, *supra* note 373 at 575.

³⁷⁵ FP Hernández, *supra* note 291 at 80, 82.

³⁷⁶ Benra et al, *supra* note 288 at 3, 8.

³⁷⁸ Hofflinger et al, *supra* note 286 at 627; See Padilla, *supra* note 336 at 38.

companies...we are surrounded here”.³⁷⁹ Privately-owned forests represent 3 million hectares of land, relative to 500,000 hectares of Mapuche territory.³⁸⁰ In Mapu Lahual, Los Lagos, less than a fifth of traditional territory is titled to Mapuche-Huilliche.³⁸¹ Unlike old growth native forests and subsistence pastures, monoculture plantations with low biodiversity cannot retain and regenerate water as effectively.³⁸⁴ In fragmenting connections to land embodied by Mapuche practices of care for water, animals, and other symbiotic plants, intergenerational transfer of knowledge is also severed.³⁸⁵

E) Regulation of Mining in Northern Chile

In contrast to agribusiness, mining only constitutes 3% of nationwide water consumption.³⁸⁶ However, Chile is also the largest copper exporter in the world, comprising 26.6% of world production in 2021.³⁸⁷ As well, copper represents 50% of national natural resource exports and 35% of public investments in the natural resource sector.³⁸⁸ Copper mining is concentrated in the north, consuming 50% of total available water in Arica-Parinacota, Antofagasta, Tarapacá, Atacama, and Valparaíso regions.³⁸⁹ Atacama alone constitutes an

³⁷⁹ Torres et al, *supra* note 18 at 166.

³⁸⁰ Nahuelpán et al, “Colonial Recognition”, *supra* note 71 at 440.

³⁸¹ Von der Mühlen et al, *supra* note 365 at 151.

³⁸⁴ Benra et al, *supra* note 288 at 2, 4; Roberto Pastén, Nicolás Nazal, & Felix Fuders, “Subsidizing Green Deserts in Southern Chile: Between Fast Growth and Sustainability of Forest Management”, in Felix Fuders & Pablo J. Donoso, eds, *Ecological Economic and Socio Ecological Strategies for Forest Conservation: A Transdisciplinary Approach Focused on Chile and Brazil* (Springer, 2020) 59 at 65.

³⁸⁵ FP Hernández, *supra* note 291 at 83.

³⁸⁶ Cornejo P. & Niewöhner, *supra* note 241 at 5. “This fact is often highlighted by [mining company] managers to demonstrate [to local authorities and the public] the minimal impact this industry has on water”: at 5.

³⁸⁷ Andrea Linarello, “Direct and indirect effects of trade liberalization: Evidence from Chile” (2018) 134 *Journal of Development Economics* 160 at 162; Dante Rodríguez-Luna et al, “An Overview of the Environmental Impact Assessment of Mining Projects in Chile” (2022) 11:2278 *Land* 1 at 2.

³⁸⁸ Cornejo P. & Niewöhner, *supra* note 241 at 1.

³⁸⁹ Levi Campos & Cristian Mardones, “An Economic Evaluation of the Health and Agricultural Damages Caused by Copper Mining in Chile” (2022) *Latin American Research Review* 1 at 2.

estimated 40% of inland water use.³⁹⁰ Water scarcity in the north is compounded by drought and average rainfall decline associated with climate change.³⁹¹

Coinciding with increasing international push toward “green” forms of energy, global demand for lithium doubled in the last decade, as a highly sought-after metal used in electric vehicles.³⁹² Local Aymara communities note lithium and copper mining’s effect on regional water access through increasing groundwater extraction.³⁹³

Multinational mining companies and the state-owned company, CODELCO, carry out 96% of copper mining in Chile, with CODELCO representing 32% of all copper production in 2014.³⁹⁴ At the same time, large mining conglomerates like Aguas Antofagasta own controlling interests in urban water supply infrastructure. Aguas Antofagasta’s private water rights were conferred during Pinochet and are currently owned by Colombian public utilities.³⁹⁵ Since 2003, coastal cities of Antofagasta have transitioned from inland freshwater consumption to desalinated seawater, diverting the former to supply mine expansions owned by Aguas Antofagasta.³⁹⁶ Despite foreseeable climate change impacts from continued water extraction,³⁹⁷ responses to drought privilege these new technologies.³⁹⁸

³⁹⁰ Comisión Chilena del Cobre, Ministerio de Minería, *Consumo de agua en la minería del cobre al 2017* (2018) Parliamentary Report DEPP 04/2018 at 7.

³⁹¹ Jorge Leiva González & Italo Onederra, “Environmental Management Strategies in the Copper Mining Industry in Chile to Address Water and Energy Challenges – Review” (2022) 2 Mining 197 at 204.

³⁹² Bárbara Jerez, Ingrid Garcés, Robinson Torres, “Lithium extractivism and water injustices in the Salar de Atacama, Chile: The colonial shadow of green electromobility” (2021) 87 Political Geography 1 at 3, 6.

³⁹³ Cornejo P. & Niewöhner, *supra* note 241 at 9.

³⁹⁴ Campos & Mardones, *supra* note 389 at 3; Romero Toledo, Videla, Gutiérrez, *supra* note 79 at 237.

³⁹⁵ Manuel Prieto et al, “The (not-so-free) Chilean water model: The case of the Antofagasta Region, Atacama Desert, Chile” (2022) 11:101081 The Extractive Industries and Society 1 at 5-6.

³⁹⁶ Maria Christina Fragkou & Jessica Budds, “Desalination and the disarticulation of water resources: Stabilising the neoliberal model in Chile” (2019) 45:2 Transactions of the Institute of British Geographers 448 at 455.

³⁹⁷ Cornejo P. & Niewöhner, *supra* note 241 at 5.

³⁹⁸ Budds, “Securing the market”, *supra* note 200 at 173.

Atacama and Tarapacá regions contain the world's largest copper reserves and copper mine.³⁹⁹ Water is used in a process called “flotation”, to treat the copper-containing material, sulfide ore.⁴⁰⁰ Since 1915, the Chuquicamata mining project in Antofagasta transformed the Atacama Desert through widespread installation of aquaducts and copper sulfide treatment plants to control water for productive uses in the San Pedro and Toconce rivers.⁴⁰¹ Since 2017, the quality of sulfide ore continues to decrease, requiring greater quantities of water to obtain copper.⁴⁰²

Ore quality decline is linked to “improved extractive technologies...in the last two decades”.⁴⁰³ Chile's mining rights concession institution, the Production Development Corporation (“CORFO”), has granted 70% of mining territory in Tarapacá and Antofagasta to private industry.⁴⁰⁴ Multinational mining companies expand copper extraction operations through granting of water rights by the DGA and by purchasing rights from farmers.⁴⁰⁵

In addition to copper, the largest global lithium reserves are in South America's Southern Cone, encompassing the “lithium triangle” of Argentina, Bolivia, and Chile.⁴⁰⁶ Chile is the world's second-largest producer of lithium.⁴⁰⁷ So-called “green electromobility” in the global

³⁹⁹ Gentes & Policzer, *supra* note 232 at 1; Gustavo Lagos et al, “Potential copper production through 2035 in Chile” (2020) 33 Mineral Economics 43 at 43.

⁴⁰⁰ Damir Galaz-Mandakovic & Francisco Rivera, “Copper sulfide mining at Chuquicamata and the spread of arsenic in drinking water in Chile, 1952-1971: A derivation of extractivism” (2022) 11:101135 The Extractive Industries and Society 1 at 3; González & Onederra, *supra* note 391 at 199.

⁴⁰¹ Galaz-Mandakovic & Rivera, *supra* note 400 at 1, 3.

⁴⁰² Lagos et al, *supra* note 399 at 47-8; González & Onederra, *supra* note 391 at 199.

⁴⁰³ Lagos et al, *supra* note 399 at 48.

⁴⁰⁴ Marcela Ramos, “Mineros de papel: Quiénes son los 20 mayores dueños de concesiones mineras” (16 May 2011), online: CIPER16 <<https://www.ciperchile.cl/2011/05/16/mineros-de-papel-quienes-son-los-20-mayores-duenos-de-concesiones-mineras/>>.

⁴⁰⁵ Jean-Daniel Rinaudo & Guillermo Donoso, “State, market or community failure? Untangling the determinants of groundwater depletion in Copiapó (Chile)” (2019) 35:2 International Journal of Water Resources Development 283 at 286.

⁴⁰⁶ Jerez, Garcés, & Torres, *supra* note 392 at 4.

⁴⁰⁷ Cristián Flores Fernández & Rossella Alba, “Water or mineral resource? Legal interpretations and Hydrosocial configurations of lithium mining in Chile” (2023) 5:1075139 Frontiers in Water 1 at 1.

North exerts pressure on global South ecologies; legitimized through rhetoric like “Green Mining”, “Climate Smart Mining”, or “Mining for a low carbon future”.⁴⁰⁸ Over the last two decades, lithium mining expanded threefold in Chile.⁴⁰⁹

In Tarapacá region, lithium extraction requires irrigation.⁴¹⁰ The primary extracted material is not the mineral itself, but a saltwater brine (roughly 25% salt, 75% water by mass) containing minerals other than lithium.⁴¹¹ As the largest salt flat in Chile, the Salar de Atacama basin supplies over 40% of the world’s lithium.⁴¹² The extraction of saltwater brines containing fungible minerals affects the recharge of surface and groundwater streams.⁴¹³ Poor understanding of river-aquifer relationships is reflected in past failed attempts to increase Loa River water flows without considering absorption by connected underground reservoirs.⁴¹⁴

Aymara peoples openly challenge hydrological models used by mining companies to conduct environmental impact assessment (EIA).⁴¹⁵ For example, during 2019 proceedings at The First Environmental Court in Antofagasta, mining company representatives falsely argued that salt brine extraction had no impact on fresh water supply.⁴¹⁶ On the other hand, Aymara peoples argue that groundwater extraction affects underground flows and lowers water availability from connected river basins in their communities.⁴¹⁷

⁴⁰⁸ Cornejo P. & Niewöhner, *supra* note 241 at 7.

⁴⁰⁹ Seefeldt, *supra* note 113 at 329.

⁴¹⁰ Cornejo P. & Niewöhner, *supra* note 241 at 7.

⁴¹¹ *Ibid*; Mojtaba Ejeian et al, “Is lithium brine water?” (2021) 518:115169 *Desalination* 1 at 1.

⁴¹² Gentes & Policzer, *supra* note 232 at 1; Cornejo P. & Niewöhner, *supra* note 241 at 6.

⁴¹³ Gentes & Policzer, *supra* note 232 at 7.

⁴¹⁴ Christian Herrera et al, “Recharge and residence times of groundwater in hyper arid areas: The confined aquifer of Calama, Loa River Basin, Atacama Desert, Chile” (2021) 752:141847 *Science of the Total Environment* 1 at 2.

⁴¹⁵ Seefeldt, *supra* note 113 at 341, 347.

⁴¹⁶ *Ibid* at 346.

⁴¹⁷ Cornejo P. & Niewöhner, *supra* note 241 at 7.

As such, the Aymara recognize that salt flat ecology is primarily a system of interconnected surface and groundwater flows, not static mineral deposits.⁴¹⁸ Indeed, the Salar de Atacama basin functions as a complex interaction between contributing surface waters of the San Pedro and Vilama rivers, and underground aquifers of the Andean Plateau.⁴¹⁹ The International Ramsar Convention on Wetlands recognizes the region's flora and fauna as richly biodiverse interconnections.⁴²⁰ Death of native algarrobo trees reliant on deep underground roots during drought indicates extremely low levels of aquifer groundwater.⁴²¹

In contrast to functional integration of salt flat ecology with Indigenous communities' subsistence practices, state regulation fragments nature.⁴²² Chile's *Mining Code* of 1983 overlooks the dynamic movement of water bodies, an integral function to salt flat ecology. Its regulatory scheme defines salt flats as static mineral deposits, despite extraction affecting water and mineral concentrations in other connected areas.⁴²³

The 2004 groundwater regulation provides conditions in applying for groundwater rights, including freshwater scarcity/availability requirements.⁴²⁴ But only freshwater aquifers, surface water, and ocean water resources used in salt wells are measured.⁴²⁵ In failing to recognize that salt brines are "unique water ecosystems", water use in the DGA registry is inaccurately represented.⁴²⁶ *The Mining Code* only regulates "mineral property", where large-scale evaporation of saltwater brines to extract lithium is unaccounted for in terms of water

⁴¹⁸ *Ibid.*

⁴¹⁹ Cornejo P. & Niewöhner, *supra* note 241 at 6.

⁴²⁰ Gentes & Policzer, *supra* note 232 at 7; Cornejo P. & Niewöhner, *supra* note 241 at 8.

⁴²¹ James J. A. Blair et al, "Exhausted: How we can stop lithium mining from depleting water resources, draining wetlands, and harming communities in South America" (2022) Natural Resources Defense Council Report at 18.

⁴²² Cornejo P. & Niewöhner, *supra* note 241 at 9.

⁴²³ Cornejo P. & Niewöhner, *supra* note 241 at 6.

⁴²⁴ Jerez, Garcés, & Torres, *supra* note 392 at 6.

⁴²⁵ Cornejo P. & Niewöhner, *supra* note 241 at 6; Blair et al, at 21.

⁴²⁶ Cornejo P. & Niewöhner, *supra* note 241 at 6; Blair et al, at 21.

extraction.⁴²⁷ The 2022 amendment to the *Water Code* introduces registration requirements for “Mining Water” with the DGA, “referring to water that has been discovered by mining concession holders”.⁴²⁸ As well, surrounding effects on surface and groundwater connections are not considered by the *Water Code*.⁴²⁹

Chile considers lithium a “strategic” resource, where only the state may exploit it. However, the state can grant exploration concessions on 4-year terms.⁴³⁴ Projects must show they will have no significant impact on human health, environmental values, landscape and tourist values, and other objects of protection.⁴³⁵ Each mining company exercising water and mineral rights must conduct its own EIA, yet with no consideration for cumulative impacts from other associated operations on regional water levels.⁴³⁶ For example, mineral treatment plants discharge copper and arsenic into surface waters that persist decades after mines close.⁴³⁸ EIA conducted by various newly proposed operations show at least three sectors of this northern region will soon be dry.⁴⁴¹

In 2016 and 2017, the DGA declared the San Pedro and Vilama rivers exceptionally water scarce. In 2018, Chile’s mining rights concession institution, the Production Development Corporation (“CORFO”), announced that water extraction from the Salar de Atacama basin “far exceeds its recharge capacity”.⁴⁴³ Mining companies’ combined use rights extract water at a rate

⁴²⁷ Cornejo P. & Niewöhner, *supra* note 241 at 6.

⁴²⁸ InvestChile, Legal Update Newsletter (April 2022), online: <<https://investchile.gob.cl/wp-content/uploads/2022/05/legal-report-investchile-april-2022-1.pdf>> at 3.

⁴²⁹ Tinoco et al, *supra* note 267 at 10; Gentes & Policzer, *supra* note 232 at 6.

⁴³⁴ Seefeldt, *supra* note 113 at 337.

⁴³⁵ Rodríguez-Luna et al, “An Overview of Environmental Impact...Mining”, *supra* note 387 at 2.

⁴³⁶ Gentes & Policzer, *supra* note 232 at 7; Rodríguez-Luna et al, “An Overview of Environmental Impact...Mining”, *supra* note 387 at 2.

⁴³⁸ Campos & Mardones, *supra* note 389 at 2.

⁴⁴¹ Rinaudo & Donoso, *supra* note 405 at 291.

⁴⁴³ Cornejo P. & Niewöhner, *supra* note 241 at 8.

of 25,000 L/s, compared with the Salar de Atacama's recharge capacity rate of 3000 L/s.⁴⁴⁴ It is estimated that 0.05-1mg of lithium requires 1 litre of saltwater brine, translating to "half a million gallons [of water] to produce 1 ton of lithium".⁴⁴⁵ As such, water levels are lowered at an estimated rate of 1750-1950 L/s.⁴⁴⁶

Further proposed development of irrigation infrastructure in the south-central region of Chile will enable northern mining expansion despite water scarcity. For example, Aquatacama, a proposed 1350km underwater pipeline extending from Bío Bío to Atacama region, aims to provide water for mining, agriculture and drinking water.⁴⁴⁷ Also extending from southern Bío Bío to Atacama, the proposed CarreteraHídrica irrigation channel aims to transport water across 3900km.⁴⁴⁸

F) Mining Effects on Aymara Peoples

Lagoons in the Atacama desert encompass traditional *ayllus* of Aymara peoples, who graze llamas, sheep, and other cattle on its biodiverse eastern margins.⁴⁴⁹ Water in these basins is key to Aymara identity, who understand the land and interdependent organisms as part of their community and ancestral heritage.⁴⁵⁰ For example, before the 1981 *Water Code*, Quillagua effectively managed water in accordance with ancestral and state law, but have since makeshifted discarded irrigation infrastructure and a reverse osmosis plant to address water

⁴⁴⁴ Gentes & Policzer, *supra* note 232 at 7.

⁴⁴⁵ Seefeldt, *supra* note 113 at 330.

⁴⁴⁶ *Ibid* at 331.

⁴⁴⁷ Panez, Roose, Faúndez, *supra* note 284 at 15.

⁴⁴⁸ *Ibid*.

⁴⁴⁹ Gentes & Policzer, *supra* note 232 at 7.

⁴⁵⁰ Seefeldt, *supra* note 113 at 342.

shortages linked to mining activity.⁴⁵¹ By 2001, the Loa River stopped flowing near Quillagua, due to expansion of lithium mining and continued pollution by mining tailings since 1997.⁴⁵²

Today there are 18 Indigenous communities in the Salar de Atacama alone, including Aymara peoples.⁴⁵⁵ Chile's 1993 *Ley Indígena* (Indigenous Law) explicitly recognizes the waters of Aymara and Atacameño peoples, considering disproportionate effects of the *Water Code* on access in the arid north.⁴⁵⁸ In 1997, mining areas in the Atacama were declared Indigenous Development Areas ("IDAs") under Law 19, 253.⁴⁵⁹ In consultation with Atacameño, Quechua, and Aymara peoples, the National Indigenous Corporation (Corporación Nacional de Desarrollo Indígena, "CONADI") negotiated transfer of lands between 1996 and 1999.⁴⁶⁰ IDAs are intended to address poverty and demands for land and water.⁴⁶¹ Despite IDA demarcation avoiding mines owned by CORFO and private industry, only 44.08% of land has been transferred as of 2020.⁴⁶²

According to the Atacama Desert Foundation, local communities report drying of fields, slopes, and lagoons, with fauna disappearing.⁴⁶³ For example, infrastructure necessary for the extraction and transportation of water in the Chuquicamata mining project diverted significant quantities of water from the San Pedro river, causing desertification of agrarian land and grazing areas.⁴⁶⁴ The state connected the Toconce river to address shortages in Antofagasta, but this introduced arsenic-rich water to nearby communities.⁴⁶⁵

⁴⁵¹ Acuña & Tironi, *supra* note 85 at 6-7.

⁴⁵² *Ibid* at 4; See also Prieto, "Equity vs. Efficiency", *supra* note 179 at 8.

⁴⁵⁵ Seefeldt, *supra* note 113 at 329; Viktoria Reisch, "Civic space restrictions beyond open repression: Mining and environmental defenders in Northern Chile" (2023) 13:101101 *The Extractive Industries and Society* 1 at 5.

⁴⁵⁸ Romero Toledo, Videla, Gutiérrez, *supra* note 79 at 237-38.

⁴⁵⁹ Gentes & Policzer, *supra* note 232 at 2; Seefeldt, *supra* note 113 at 339; Reinao, *supra* note 20 at 292.

⁴⁶⁰ Felix Malte Dorn & Hans Gundermann, "Mining companies, indigenous communities, and the state: The political ecology of lithium in Chile (Salar de Atacama) and Argentina (Salar de Olaroz-Cauchari)" (2022) 29 *Journal of Political Ecology* 341 at 348.

⁴⁶¹ Romero Toledo, Videla, Gutiérrez, *supra* note 79 at 241.

⁴⁶² Dorn & Gundermann, *supra* note 460 at 348.

⁴⁶³ Seefeldt, *supra* note 113 at 340.

⁴⁶⁴ Galaz-Mandakovic & Rivera, *supra* note 400 at 1, 3.

⁴⁶⁵ *Ibid* at 2.

Mineral concentration measurements from one community in the IDA show high levels of toxic copper dust associated with chronic disease, neurological disorders, increased cancer risk, and developmental abnormalities.⁴⁶⁶ The level of heavy metals in rivers, soil, and air indicate toxic concentrations affecting humans, fish, flora and fauna.⁴⁶⁷ The main contaminant found in soils is copper and arsenic, impacting organisms like earthworms that maintain soil quality and water absorption.⁴⁶⁸ Crops relying on waters and soil with high concentrations of these metals result in lower yields and premature human mortality when consumed.⁴⁶⁹ Cultivation of corn, quinoa, vegetables, and fruit have decreased alongside subsistence-based livestock herding of llamas and alpacas.⁴⁷⁰

Recognition of ancestral territory through the state's *Indigenous Law*, and legitimacy gained through ratification of ILO Convention 169, only positions Aymara communities as recipients of extracted resources.⁴⁷¹ Industry opposition to Indigenous registration of ancestral rights often involves monetary offers or concessions to communities in the form of increased healthcare or education centers, otherwise inadequately provided by the state.⁴⁷²

For example, the Camar community successfully advocated and negotiated a compliance program with one of the largest mining companies in Chile. However, higher quotas for lithium extraction were then authorized through contracts with state-owned CODELCO mining

⁴⁶⁶ Nicolás C. Zanetta-Colombo et al, "Impact of mining on the metal content of dust in indigenous villages of northern Chile" (2022) 169: 107490 *Environment International* 1 at 10-1.

⁴⁶⁷ Carlos Cacciuttolo & Deyvis Cano, "Environmental Impact Assessment of Mine Tailings Spills Considering Metallurgical Processes of Gold and Copper Mining: Case Studies in the Andean Countries of Chile and Peru" (2022) 14:3057 *Water* 1 at 22-3.

⁴⁶⁸ A. Neaman & C. Yañez, "Assessment of the Ecological Status of Soils Contaminated by the Copper Mining Industry in Chile: Earthworms to the Rescue" (2023) 56:1 *Eurasian Soil Science* 81 at 81.

⁴⁶⁹ Campos & Mardones, *supra* note 389 at 23; Galaz-Mandakovic & Rivera, *supra* note 400 at 5.

⁴⁷⁰ Cornejo P. & Niewöhner, *supra* note 241 at 8.

⁴⁷¹ Cornejo P. & Niewöhner, *supra* note 241 at 8.

⁴⁷² Gentes & Policzer, *supra* note 232 at 8, 10.

company.⁴⁷³ At the same time, the Nuclear Energy Commission provides export licenses to mining companies.⁴⁷⁴ Thus the government's limited role in water regulation keeps mining industry supplied with water and access to minerals, while Aymara peoples' access is continually reduced, and resistance attenuated.⁴⁷⁵

Consultation processes beforehand without a standard of consent are ineffective means to inform predicted environmental and social impacts on aquifers since causal relations between aquifers is difficult to prove.⁴⁷⁶ If communities oppose development through legal means of conflict resolution, they must provide formal causal evidence of adverse effects felt in their community. While Pica and Huasco communities successfully advocated for international protections of their territory, an asymmetry continues to exist between how territory and ecological function are represented and legitimized by community versus industry perspectives.⁴⁷⁷

Granting of groundwater rights by the DGA is based on "foreseeable conditions", balancing extraction levels and future availability.⁴⁷⁸ Yet the regulatory scheme for assessment divides regions into separate units and turns a "highly, dynamic, fluid, and indeterminate system" into an unrealistically "static and manageable" resource.⁴⁷⁹ Indigenous peoples struggle to balance environmental protection and socio-economic development in line with their legal customs.⁴⁸⁰

⁴⁷³ Cornejo P. & Niewöhner, *supra* note 241 at 8.

⁴⁷⁴ Seefeldt, *supra* note 113 at 338.

⁴⁷⁵ *Ibid.*

⁴⁷⁶ Cornejo P. & Niewöhner, *supra* note 241 at 8.

⁴⁷⁷ *Ibid* at 7-8, 12; Seefeldt, *supra* note 113 at 345.

⁴⁷⁸ Cornejo P. & Niewöhner, *supra* note 241 at 12.

⁴⁷⁹ *Ibid.*

⁴⁸⁰ Gentes & Policzer, *supra* note 232 at 9.

G) Regulation of Fisheries and Aquaculture in Southern Chile

Chile is the world's second largest salmon producer after Norway, both competing over two main markets: the US and EU.⁴⁸¹ Chile's southern regions of Los Lagos, Aysén, and Magallanes produce 78% of national aquaculture exports,⁴⁸² and represent the largest export-driven aquaculture sector in South America.⁴⁸³

Chile's regulation of aquaculture enables unsustainable resource extraction, with limited control over ecological impacts and opportunities for democratic participation.⁴⁸⁵ In interviews with communities on the southern mainland and Chiloé Island, participants note widespread ocean use conflict among all stakeholders.⁴⁸⁶ Conflict is further encouraged by EU-Chile free trade and foreign investment agreements. According to the EU-Chile trade and investment chapter of the ECAA, tariff concessions can be granted on overexploited fish species.⁴⁸⁷ Further, the aquaculture industry projects a 26.4% increase in production from 2016 to 2030.⁴⁸⁸

Under the General Law on Fisheries and Aquaculture (Ley General de Pesca y Acuicultura, "LGPA"), individuals may apply to the National Fisheries and Aquaculture Service (Servicio Nacional de Pesca y Acuicultura, "SERNAPESCA") for aquaculture use rights within areas designated by the Ministry of National Defence as Appropriate Areas for Aquaculture

⁴⁸¹ Bustos-Gallardo, Delamaza, & Rivas, *supra* note 74 at 103; EUMOFA, "Monthly highlights" (April 2017), online: EUMOFA <<https://www.eumofa.eu/documents/20178/102199/Monthly+Highlights+-+No.+4-2017.pdf>>.

⁴⁸² Dante Rodríguez-Luna et al, "The Environmental Impact Assessment in Aquaculture Projects in Chile: A Retrospective and Prospective Review Considering Cultural Aspects" (2021) 13:9006 Sustainability 1 at 2, 5.

⁴⁸³ Exequiel Gonzalez Poblete et al, "The impact of trade and markets on Chilean Atlantic salmon farming" (2019) 27:1 Aquaculture International 1465.

⁴⁸⁵ Jeremy Anbleyth-Evans et al, "Toward marine democracy in Chile: Examining aquaculture ecological impacts through common property local ecological knowledge" (2020) 113:103690 Marine Policy 1 at 1.

⁴⁸⁶ Ebel, *supra* note 32 at 285.

⁴⁸⁷ Cecilia Bellora et al, "Trade and Biodiversity" (2020) European Parliament, Policy Department for External Relations, Directorate General for External Policies of the Union; European Parliament's Committee on International Trade PE 603.494 at 13.

⁴⁸⁸ Ebel, *supra* note 32 at 282.

(AAA).⁴⁸⁹ EIA is mandatory for proposed aquaculture projects under Law 19,300, General Environmental Bases (Bases Generales del Medio Ambiente).⁴⁹⁰

Between 1994-2019, the Environmental Assessment Service (EAS) received 5323 aquaculture project proposals as the arms-length agency responsible for overseeing EIAs conducted by industry proponents.⁴⁹¹ While 68.9% of projects were approved, only 8% included opportunities for citizen participation.⁴⁹² When participation does occur, council meetings with EAS privilege technical reasoning over community perceptions of risk.⁴⁹³

In contrast to commercial fisheries and aquaculture, article 140 bis of the LGPA defines subsistence fishing as “an individual power to harvest for personal and family consumption, without a prior administrative decision”.⁴⁹⁴ Subsistence fishing is limited to satisfaction of consumption, with no provisions regarding sale of surplus salmon.⁴⁹⁵ The LGPA also prohibits massive riggings and boat propulsion systems, suggesting that subsistence fishing occurs within a context of scarcity. This is further signaled by equal protection provisions for Indigenous peoples’ traditional artisanal fishing practices, but without specified conditions for protection by the state.⁴⁹⁶

Subsistence and commercial fishing licensing under the LGPA exist in tension, creating a space of competition over coastal use rights. 80% of southern coastal space is designated as

⁴⁸⁹ Santiago González, Miguel Escalona, & Francisco Muñoz, “Actores e intereses en dispute por el uso del borde costero de la region de Los Lagos, sur de Chile/ Actors and Interests in dispute for the use of Coastal Area in Los Lagos Region, Southern Chile” (2021) 41 *Revista Austral de Ciencia Sociales* 113 at 116; Stefany Camelo-Guarín, Carlos Molinet, & Doris Soto, “Recommendations for implementing integrated multitrophic aquaculture in commercial farms at the landscape scale in southern Chile” 544:737116 *Aquaculture* 1 at 3.

⁴⁹⁰ Rodríguez-Luna et al, “The Environmental Impact Assessment in Aquaculture”, *supra* note 482 at 3.

⁴⁹¹ *Ibid.*

⁴⁹² Rodríguez-Luna et al, “The Environmental Impact Assessment in Aquaculture”, *supra* note 482 at 9.

⁴⁹³ *Ibid* at 12.

⁴⁹⁴ Eduardo Roig Monge, “On Dignity, Vulnerability, Indigenous Peoples and Fisherfolks: Chilean Subsistence Fishing According to International Human Rights” (2021) 17:1 *Revista Direito GV* 1 at 3.

⁴⁹⁵ *Ibid.*

⁴⁹⁶ *Ibid.*

AAA space without local participation in mapping decisions.⁴⁹⁷ In 2008, the state established *Lafkenche Law* (roughly translated as Seapeoples' Law, recognizing coastal Mapuche peoples),⁴⁹⁸ following inadequate consideration of Indigenous peoples' history of dispossession and loss of traditional fishing spaces.⁴⁹⁹

The enabling legislation, Law 20,249 returns jurisdiction over natural resources to successful Indigenous applicants who traditionally cultivated the land and waters under customary subsistence practices.⁵⁰⁰ According to the Sub-secretariat of Fisheries and Aquaculture ("SUBPESCA"), *Lafkenche Law's* creation of Marine and Coastal Areas for Indigenous Peoples (Espacios Costero Marino de Pueblos Originarios, "MCAIP") aims to recognize traditional artisanal fishing by Indigenous peoples.⁵⁰¹ Yet most areas requested by Mapuche-Huilliche communities on Chiloé island are already defined by the state as AAA commercial territory.⁵⁰²

Upon granting of exclusive rights by SUBPESCA, coastal Indigenous communities may implement eco-system-based approaches that integrate cultural, economic, and environmental dimensions on a watershed scale.⁵⁰³ This includes discretion for cooperation with local artisanal fishing unions regulated under SUBPESCA's 1991 Management and Exploitation Areas for

⁴⁹⁷ Anbleyth-Evans, "Toward marine democracy", *supra* note 485 at 2.

⁴⁹⁸ Alexandra Tomaselli, "Processes and failures of prior consultations with Indigenous Peoples in Chile" in Claire Wright & Alexandra Tomaselli, eds, *The Prior Consultation of Indigenous Peoples in Latin America* (Routledge, 2019) 119 at 121.

⁴⁹⁹ Ebel, *supra* note 32 at 283.

⁵⁰⁰ Ebel, *supra* note 32 at 283; Luciano Hiriart-Bertrand et al, "From customary law to the implementation of safeguard measures: The case of 'Marine and Coastal Areas for Indigenous Peoples' in Chile", in Manuel Ruiz Muller, Rodrigo Oyanedel, Bruno Monteferrri, eds, *Marine and Fisheries Policies in Latin America: A Comparison of Selected Countries* (Routledge, 2019) 97 at 100.

⁵⁰¹ Hiriart-Bertrand et al, *supra* note 500 at 101, 105.

⁵⁰² Andrea Riedemann Fuentes, Tulika Bansal, Fernando Núñez, "The Salmon Industry and Human Rights in Chile: Sector-Wide Impact Assessment" (2021) at 229, online (pdf): *The Danish Institute of Human Rights* <<https://www.humanrights.dk/sites/humanrights.dk/files/media/document/The%20Salmon%20Industry%20and%20Human%20Rights%20in%20Chile.PDF>>.

⁵⁰³ Hiriart-Bertrand et al, *supra* note 500 at 105.

Benthic Resources legislation (internationally known as Territorial User Rights in Fisheries, “TURFs”).⁵⁰⁴ For example, communities in Ancud Bay on Chiloé Island have successfully organized TURF fishing unions, independent fishers, government, and seafood processors in creating management plans for the region.⁵⁰⁵

While the TURFs and MCAIP systems were developed after Pinochet to include the diversity of stakeholders, commercial aquaculture continues to encroach on TURFs and MCAIPs through a procedural advantage inscribed by law. In contrast to SUBPESCA’s mandatory consultation processes with industry stakeholders in authorizing TURFs and MCAIPs, fishing unions and Mapuche peoples are excluded from commercial aquaculture decision-making regulated under the LGPA by SERNAPESCA.⁵⁰⁶ Additionally, community practices authorized under MCAIPs must be consistent with strategies elaborated in the LGPA regarding available areas and currently designated use rights. In contrast to SERNAPESCA regulations, establishing an MCAIP area with SUBPESCA involves a multitude of authorizing institutions and negotiations with industry, taking 2 years or more to complete.⁵⁰⁷

Given that exclusive use rights are granted to MCAIP applicants, large-scale commercial aquaculture view MCAIPs as threatening the availability of marine-coastal areas for salmon farms.⁵⁰⁸ Many industrial fishers diversified to aquaculture in converting large vessels to meet size restrictions required by LGPA regulations.⁵⁰⁹ This coincides with a sevenfold increase in the proportion of total catches recorded by artisanal fishers from 1990-2017.⁵¹⁰ In contrast to the

⁵⁰⁴ Ebel, *supra* note 32 at 281, 283.

⁵⁰⁵ *Ibid* at 283.

⁵⁰⁶ *Ibid* 282.

⁵⁰⁷ Hiriart-Bertrand et al, *supra* note 500 at 100.

⁵⁰⁸ *Ibid* at 102; Ebel, *supra* note 32 at 283.

⁵⁰⁹ Ricardo Ffrench-Davis & Álvaro Díaz, “Productive investment in Chile’s economic development: trend and challenges” (2019) 127 CEPAL Review 25 at 40.

⁵¹⁰ *Ibid*.

success of Ancud Bay's MCAIP-TURF cooperation, artisanal fishing unions across the mainland's Chacao Channel near Carelmapu feel threatened by MCAIPs created by Mapuche-Huilliche communities, in addition to increased commercial competition during the last few decades.⁵¹¹

SERNAPESCA may recognize certain areas used by subsistence fishers as "natural banks" under Law 20,434 but recognition requires a threshold of species abundance to be protected.⁵¹² This contradicts the LGPA's subsistence fishing provisions that suggest artisanal fishing occurs in a context of scarcity. As well, protection against further degradation of natural banks does not consider commercial impacts before baseline measures established in 2012.⁵¹³ Without state recognition of ongoing impacts and adequate baseline assessment, these areas are mapped as AAA, enabling individual commercial rights to be granted.⁵¹⁴

As such, subsistence fishers must operate near salmon farms and harmful practices. Granting of rights ensures private access to commercial aquaculture, while the coastal sea's dynamic movement as an open ecology entails associated impacts are felt at regional scales beyond AAA mapping.⁵¹⁵ 99.34% of EIA conducted does not assess cumulative regional impacts of aquaculture on the marine environment.⁵¹⁶

H) Aquaculture Effects on Mapuche-Huilliche Peoples

Mapuche-Huilliche communities subsisted for generations in reciprocal relationships with the sea.⁵²¹ However, their culture and economy increasingly depend on commercial

⁵¹¹ Ebel, *supra* note 32 at 283; Ebel, Beitzl, & Torre, *supra* note 33 at 584.

⁵¹² Anbleyth-Evans et al, "Toward marine democracy", *supra* note 485 at 5, 7.

⁵¹³ *Ibid* at 5-6.

⁵¹⁴ Anbleyth-Evans et al, "Toward marine democracy", *supra* note 485 at 6.

⁵¹⁵ Anbleyth-Evans et al, "Toward marine democracy", *supra* note 485 at 7.

⁵¹⁶ Rodríguez-Luna et al, "The Environmental Impact Assessment in Aquaculture", *supra* note 482 at 13.

⁵²¹ Delgado et al, "Including traditional knowledge", *supra* note 31 at 1-2.

aquaculture.⁵²² The physical displacement of communities over territorial mapping is a neocolonial form of “spatial enclosure” described by Indigenous communities, small-scale fisheries, and artisanal fishers as “ocean/coastal grabbing”.⁵²³

The introduction of salmon production in the 1980s transformed Mapuche-Huilliche territorial geography and social life in the Los Lagos mainland and Chiloé Island.⁵²⁴ Wage labour on salmon farms provides a more stable form of work in considering industry encroachment.⁵²⁵ In place of subsistence economies, competitive exploitation of the marine environment through salmon farms and aquaculture technology increase pressure on the health and stability of the environment.⁵²⁶

Coastal Mapuche-Huilliche fishers face increasing pollution to water sources due to chemical storage and refineries.⁵²⁷ Commercial fisheries and aquaculture exercise non-consumptive water rights that reduce water access in polluting and degrading water bodies.⁵²⁸ For example, the unregulated use of antibiotics, antiparasitics, and disinfectants impacts pH balance required for healthy levels of cyano-bacteria and phytoplankton in underwater sediment.⁵²⁹ Unregulated introduction of nutrients by large-scale salmon farms cause eutrophication, where harmful red algae blooms reduce oxygen conditions, resulting in loss of

⁵²² Ebel, *supra* note 32 at 283.

⁵²³ Cecilia Campero, Nathan J. Bennet, & Nayadeth Arriagada, “Technologies of dispossession in the blue economy: Socio-environmental impacts of seawater desalination in the Antofagasta” (2020) *The Geographical Journal* 1 at 3.

⁵²⁴ Anbleyth-Evans et al, “Toward marine democracy”, *supra* note 485 at 1.

⁵²⁵ Ebel, *supra* note 32 at 283.

⁵²⁶ Hiriart-Bertrand et al, *supra* note 500 at 100.

⁵²⁷ Jeremy Anbleyth-Evans et al, “Toxic violence in marine sacrificial zones: Developing blue justice through marine democracy in Chile” (2022) 0:0 *EPC: Politics and Space* 1 at 11.

⁵²⁸ Sarah H. Kelly & José Miguel Valdés Negroni, “Tracing institutional surprises in the water-energy nexus: Stalled projects of Chile’s small hydropower boom” (2021) 4:3 *EPE: Nature and Space* 1171 at 1180; Rosa Maria Guerrero-Valdebenito et al, “El Código de Aguas del modelo neoliberal y conflictos sociales por agua en Chile: Relaciones, cambios y desafíos/The Neoliberal Water Code Model and social conflicts over water in Chile: Relations, changes and challenges” (2018) 11 *Agua y Territorio* 97 at 100.

⁵²⁹ Anbleyth-Evans, “Toward marine democracy”, *supra* note 485 at 2, 7; Rodríguez-Luna et al, “The Environmental Impact Assessment in Aquaculture”, *supra* note 482 at 2.

interdependent species.⁵³⁰ Reduced oxygen conditions are compounded by over 4.4 million salmon escaping aquaculture farms each year.⁵³¹

Salmon farming reduces biodiversity, decreasing species commonly caught by subsistence fishing.⁵³² For example, 75% of species disappeared from the Comau fiord, 10 years after aquaculture operations opened in the early 90s.⁵³³ This was reflected in 2005 by widespread salmon anemia, associated with greater waste produced by commercial aquaculture.⁵³⁴ 90% of fish species are in danger, with aquatic ecosystems considered fragile.⁵³⁵ In 2018, the Chilean Fisheries Development Institute declared the need for adopting a precautionary approach, yet poor coordination and cooperation inhibit implementation.⁵³⁶ Enforcement is entrusted to SERNAPESCA, who lack access to data in the Ministry of the Environment, while policy development is exercised under the jurisdiction of SUBPESCA.⁵³⁷

5) Chile's Cycle of Political Exclusion, Discrimination, and Economic Inequality for Indigenous Peoples

I rely on Sergio Puig's analytical framework of international Indigenous economic law to explain Chile's political economic discrimination of Mapuche and Aymara peoples and resulting violation of their right to water.⁵³⁸ Indigenous peoples are excluded from domestic participation

⁵³⁰ Anbleyth-Evans, "Toward marine democracy", *supra* note 485 at 2, 7; Rodríguez-Luna et al, "The Environmental Impact Assessment in Aquaculture", *supra* note 482 at 2.

⁵³¹ Anbleyth-Evans, "Toward marine democracy", *supra* note 485 at 2.

⁵³² Luisa E. Delgado et al, "Toward social-ecological coastal zone governance of Chiloé Island (Chile) based on the DPSIR framework" (2021) 758 *Science of the Total Environment* 1 at 2.

⁵³³ Anbleyth-Evans, "Toward marine democracy", *supra* note 485 at 4, 7.

⁵³⁴ Hiriart-Bertrand et al, *supra* note 500 at 102.

⁵³⁵ Paulina Genova Alonso, "Evolution of water environmental regulations in Chile since 1900" (2022) 24:8 *Official Journal of the World Water Council* 1306 at 1309.

⁵³⁶ Delgado et al, "Toward social-ecological coastal", *supra* note 532 at 2.

⁵³⁷ Anbleyth-Evans et al, "Toxic violence", at 7.

⁵³⁸ Puig, "International Indigenous Economic Law", *supra* note 216 at 1267.

and international protection, while reregulation of the economy serves to empower private industry and disempower Indigenous peoples.⁵³⁹ The economic consequence of discrimination at the international and domestic level is disproportionate economic inequality.⁵⁴⁰ A cycle of susceptibility and exclusion continues as domestic and international law “further erodes their bargaining position and ability to advance their economic interests”.⁵⁴¹

A) Political Exclusion

Puig notes that lack of political participation results in a perceived lack of legitimacy regarding international economic laws imposed on Indigenous peoples.⁵⁴² Since 2012 adoption of an Action Plan for Human Rights and Democracy, the EU regularly conducts Sustainability Impact Assessments (“SIAs”) on all trade agreements, committing itself to human rights standards.⁵⁴³ Drawing on EIA methodology, SIAs aim to increase political participation in FTAs by conducting consultations during treaty negotiations with societal groups and businesses.⁵⁴⁴ This includes analysis of potential impacts on Indigenous peoples as a “vulnerable group”.⁵⁴⁵

From 2017-2022, Chile and the EU revised the ECAA, which will become the EU-Chile Advanced Framework Agreement (AFA).⁵⁴⁶ Assessment reports published between 2017-2022

⁵³⁹ *Ibid* at 1262.

⁵⁴⁰ *Ibid*.

⁵⁴¹ *Ibid*.

⁵⁴² Puig, “International Indigenous Economic Law”, *supra* note 216 at 1260.

⁵⁴³ Isabelle Ioannides, “The effects of human rights related clauses in the EU-Mexico Global Agreement and the EU-Chile Association Agreement: Ex-Post Impact Assessment” (2017) European Parliament Working Paper PE 558.764 at 35, 39; Caroline Dommen, “Human Rights Impact Assessment: Trade Agreements and Indigenous Rights”, in John Borrows & Risa Schwartz, eds, *Indigenous Peoples and International Trade: Building Equitable and Inclusive International Trade and Investment Agreements* (Cambridge University Press, 2020) 295 at 307.

⁵⁴⁴ Dommen, *supra* note 543 at 309; Maria Garcia, “Incidents along the Path: Understanding the Rationale behind the EU-Chile Association Agreement” (2011) 49:3 *Journal of Common Market Studies* 501 at 503.

⁵⁴⁵ Dommen, *supra* note 543 at 307-08; See also European Commission, “Impact Assessment” Working Paper No. SWD(2017) 173 final at 34, online: *EUR-lex* <<https://eur-lex.europa.eu/legal-content/en/TXT/?uri=CELEX%3A52017SC0173>>.

⁵⁴⁶ Detlef Nolte, “The European Union and Latin America: Renewing the Partnership after Drifting Apart” (2023) German Institute of Global and Area Studies (GIGA) Working Paper GIGA Focus Latin America 2 at 8; European

fail to acknowledge that free trade continues to facilitate increases in water extraction by natural resource industries, with insufficient protection of Indigenous rights through consultation processes.⁵⁴⁷ This is despite past criticism of human-rights impact assessment to adequately address how FTAs will impact human rights, and the effectiveness of enforcement mechanisms when violations occur.⁵⁴⁸

Lack of participation in international economic law includes treaty negotiations and adjudicatory law-making in dispute resolution bodies like the WTO,⁵⁴⁹ but Indigenous peoples are excluded from domestic participation in economic matters that affect them as well. Since the late 1990s, Indigenous grassroots organizations are widely acknowledged in their claims against mining, salmon, and forestry industries in defence of land and water.⁵⁵⁰ Survey data from 2006-2016 finds a significant drop in Mapuche trust in Chilean institutions, especially in rural communities regarding law enforcement, judicial functioning, and the public prosecutor's office.⁵⁵¹

During October 2019 demonstrations for a new constitution, the Mapuche flag became a shared symbol with non-Indigenous citizens.⁵⁵² Already in 2014, the first "Plurinational March for the Defence of Waters and Territories", developed a solidarity network between the nascent water movement at the time, and the longstanding Mapuche movement in Araucanía.⁵⁵³

Parliament, "Modernisation of the Trade Pillar of the EU-Chile Association Agreement", (4 April 2023) at 1, online: *Legislative Train Schedule* <<https://www.europarl.europa.eu/legislative-train/theme-a-stronger-europe-in-the-world/file-modernisation-eu-chile-association-agreement>>.

⁵⁴⁷ Dommen, *supra* note 543 at 309; Cohen, at 333.

⁵⁴⁸ Ioannides, *supra* note 543 at 35, 45-6.

⁵⁴⁹ Puig, *International Indigenous Economic Law*, *supra* note 216 at 1260.

⁵⁵⁰ Macpherson, *supra* note 41 at 167-68; Parmo, *supra* note 107 at 91.

⁵⁵¹ Isabel Aninat S., "Confianza y el pueblo mapuche: análisis desde la perspectiva de desempeño institucional/ Trust and the Mapuche people: analysis from the perspective of institutional performance" in Isabel Aninat S., Verónica Figueroa H., Ricardo González T., eds, *El pueblo Mapuche en el siglo XXI: Propuestas para un nuevo entendimiento entre culturas en Chile* (Centro de Estudios Públicos, 2017) 197 at 205.

⁵⁵² Peñafiel, *supra* note 221 at 118.

⁵⁵³ Robinson Torres-Salinas & Amaya Alvez Marin, "Water commons as a socioenvironmental project for the 21st century in Chile" (2023) 25:2 *Water Policy* 116 at 117.

Widespread and longstanding deficits in democratic participation are linked to “the maintenance of dictatorship-tailored institutional dykes that make the political system immune to the will of the majority in certain areas”.⁵⁶⁹ Under a shared concern for privatized water, Chileans across the country have mobilized in the streets seven times between 2013-2019, demanding re-nationalization.⁵⁷⁰

For Indigenous peoples however, mere re-nationalization is insufficient in considering associated regulation, and exploitation of land, water, and identity through state legislation and executive action. This section examines procedural failures in political participation. I first outline recognition of ancestral rights to land and water in the 1993 *Indigenous Law*, and the right to consultation on matters affecting these interests. This includes the recent attempt to draft a new constitution at the constituent process, and environmental impact assessment processes before development occurs. The final section examines sustainability impact assessment of the ECAA and its successor, the AFA.

i. Limitations of Rights Recognized under the *Ley Indigena* (*Indigenous Law*)

With Aylwin’s presidency in 1990, a special commission in dialogue with Indigenous peoples drafted *Ley Indigena* (“*Indigenous Law*”), eventually passed in 1993.⁵⁷¹ The 1991 National Congress of Indigenous Peoples culminated nationwide consultation with Indigenous peoples.⁵⁷² In addition to coastal territories under *Lafkenche Law*, the *Indigenous Law* functions

⁵⁶⁹ Claudia Heiss, “Legitimacy crisis and the constitutional problem in Chile: A legacy of authoritarianism” (2017) 24 *Constellations* 470 at 470; See also Domingo Lovera-Parmo, “Protests, Riots, Inequality and a New Constitution for Chile” (December 2019), online (blog): *OxHRH* <<https://ohrh.law.ox.ac.uk/protests-riots-inequality-and-a-new-constitution-for-chile/>>.

⁵⁷⁰ Torres-Salinas & Marin, *supra* note 568 at 117.

⁵⁷¹ Macpherson, *supra* note 41 at 167-68; Parmo, *supra* note 107 at 91.

⁵⁷² Macpherson, *supra* note 41 at 168.

as a primary domestic legal instrument to recognize Indigenous rights, not the constitution.⁵⁷³ It creates the National Corporation of Indigenous Development (Corporación Nacional de Desarrollo Indígena, “CONADI”), which promotes and implements Indigenous policy.⁵⁷⁴ CONADI’s purpose includes financing for acquisition, allocation, and protection of communal water rights.⁵⁷⁵

Despite participation in the *Indigenous Law* drafting process, provisions for mandatory consultation on matters affecting them were not included.⁵⁷⁶ As well, the Land and Water Fund (Fondo de Tierras y Aguas Indígenas) for reappropriation receives little funding.⁵⁷⁷ Rather, rights under the *Indigenous Law* are not equivalent to constitutional protections guaranteed for water rights as private property.⁵⁷⁹

President Aylwin’s new policy did not fundamentally change the privatized water regime in Chile, but rather attempted to make it more socially inclusive.⁵⁸¹ The *Indigenous Law*’s stated purpose is to promote “Indigenous development” or “culture plus development”.⁵⁸² To facilitate productivity against the risk of market failure, water use rights must remain certain and clear.⁵⁸³ As such, water rights under the *Indigenous Law* only apply to land occupied by Indigenous peoples, while the separation of land and water ownership under the *Water Code* is maintained.⁵⁸⁴

⁵⁷³ Tomaselli, *supra* note 498 at 120.

⁵⁷⁴ Tomaselli, *supra* note 498 at 120; Parmo, *supra* note 107 at 92.

⁵⁷⁵ Parmo, *supra* note 107 at 92.

⁵⁷⁶ *Ibid.*

⁵⁷⁷ *Ibid.*

⁵⁷⁹ Peñafiel, *supra* note 221 at 119.

⁵⁸¹ Macpherson, *supra* note 41 at 182.

⁵⁸² *Ibid* at 180-81.

⁵⁸³ *Ibid* at 183.

⁵⁸⁴ *Ibid* at 184.

Under state-recognition, the government retains concern that remedying redistribution of land and water during Pinochet may undermine the certainty of ownership rights over water.⁵⁸⁵ Recognizing the disproportionate effect of current regulation on Indigenous communities' human right to water would disrupt commodified water rights held by industry. As such, water rights most affected are ultimately limited to ancestral land rights in reference to "ethnicities (*etnías*)".

Article 1 of the *Indigenous Law* lists nine groups of Indigenous peoples recognized by the state, including Mapuche and Aymara peoples.⁵⁸⁶ It acknowledges historical debt owed to "Indigenous Chileans" and "opportunity" for truth and reconciliation after Pinochet.⁵⁸⁷ Article 20(c) of the *Indigenous Law* funds allocation of water use rights to Indigenous peoples, while Article 64 explicitly recognizes the water rights of northern "Aymara and Atacameño peoples".⁵⁸⁸ Article 65 also acknowledges the migration of Aymara and Atacameño peoples, due to dispossession.⁵⁸⁹ Article 62 provides that other ethnicities from the north are recognized like the Quechua and Colla.⁵⁹⁰

State-recognized communal rights are circumscribed by their characterization as "ancestral" water rights. The linking of ancestral water and land solidifies Indigenous peoples' limited holdings, while water rights under the *Water Code* are easily transferable, and capable of freely changing types of use. As briefly described earlier, the only other option for Indigenous peoples to obtain new water rights is proof of effective occupation for a period of least 5 years. Otherwise, many are unable to obtain new water rights.⁵⁹¹ Almost all surface use rights were distributed when the *Indigenous Law* came into effect, keeping ownership allocations to the

⁵⁸⁵ *Ibid* at 183.

⁵⁸⁶ *Ibid* at 178.

⁵⁸⁷ *Ibid* at 179.

⁵⁸⁸ *Ibid* at 176.

⁵⁸⁹ *Ibid* at 177.

⁵⁹⁰ *Ibid* at 184.

⁵⁹¹ *Ibid* at 194.

market.⁵⁹² Under *Lafkenche Law*, most requested areas for new non-consumptive water rights are already distributed to commercial fishers under AAA territorial mapping.⁵⁹³

Ancestral rights to water cannot be inconsistent with other users' rights. While new water rights cannot be granted on Indigenous "lakes, ponds, springs, rivers and other aquifers" under Article 64(2),⁵⁹⁴ Article 64(1) states that "Waters, including rivers, canals, streams and springs, found on the lands of the Indigenous communities established by this law...[cannot prejudice] the rights that other titleholders have registered in accordance with the Water Code."⁵⁹⁵ The scheme of the section implies priority to already established water use rights. The 2022 amendment to the *Water Code* introduces the possibility of priority use for "Indigenous territories...in accordance with the laws and international treaties ratified by Chile and which remain in force" under Article 5's public interest provisions.⁵⁹⁶

At the same time, the judiciary still suffers from "an implementation gap" or "rights ritualism" where states proceduralize rights without substantively securing and enforcing them.⁵⁹⁷ The Chilean Supreme Court case of *Chusmiza* (2009) shows the inherent conflict that arises between Indigenous water rights and registered rights of private companies. In *Chusmiza*, a bottling company brought forward land title and water use rights for a spring used by Aymara peoples.⁵⁹⁸ Chusmiza and Usmagama communities in northern Chile claimed use rights to the

⁵⁹² *Ibid* at 197.

⁵⁹³ Anbleyth-Evans, "Toward marine democracy", *supra* note 485 at 2; Fuentes, Bansal, Núñez, *supra* note 502 at 229.

⁵⁹⁴ Macpherson, *supra* note 41 at 196.

⁵⁹⁵ *Ibid* at 197.

⁵⁹⁶ Macpherson et al, *supra* note 193 at 18-9.

⁵⁹⁷ Claire Wright & Alexandra Tomaselli, "From the implementation gap to Indigenous empowerment: Prior consultation in Latin America", in Claire Wright & Alexandra Tomaselli, eds, *The Prior Consultation of Indigenous Peoples in Latin America* (Routledge, 2019) 279 at 279; Ben Saul, *Indigenous Peoples and Human Rights: International and Regional Jurisprudence* (Hart Publishing, 2016) at 209.

⁵⁹⁸ *Agua Mineral Chusmiza SAIC con Comunidad Indígena Aymara Chusmiza* (Supreme Court Decision) [2009] Corte Suprema [Supreme Court] No. 2840-2008. (Chile) (25 November 2009).

mineral spring for agriculture and drinking water. The Supreme Court applied Article 64 to recognize communal and ancestrally held use rights. It also referenced the statute's purpose of repopulating subsistence development in rural Indigenous communities and recognized that the communities' use rights existed uninterrupted since "time immemorial".⁵⁹⁹

The court mentions that company and community rights can "co-exist", yet no direction is given, with two sets of rights ultimately recognized as constitutionally protected.⁶⁰⁰ Having exhausted domestic remedial mechanisms, a claim was placed in the Inter-American Commission, arguing inability to exercise judicially recognized water rights from legal uncertainty.⁶⁰¹ The Rapporteur on the Rights of Migrants at the Inter-American Commission negotiated a settlement in 2017, and negotiations continued in 2018 when the Executive Secretariat of the Inter-American Commission visited Chile.⁶⁰²

The case remains unresolved, showing lack of effective legal protection for Indigenous water rights. When community activists defend land despite these decisions, they risk violence, criminalization, and imprisonment, as noted in 2003 by the Special Rapporteur on the Rights of Indigenous Peoples.⁶⁰³ In 2014, the Inter-American Court disapproved of Chile's 2002 use of anti-terrorism laws, finding it violated rights to equal protection in law by convicting and imprisoning Mapuche *longkos* and activists under suspicion of committing terrorist acts.⁶⁰⁴

⁵⁹⁹ Macpherson, *supra* note 41 at 198-99.

⁶⁰⁰ *Ibid* at 200.

⁶⁰¹ *Admissibility Aymara Indigenous Community of Chusmiza-Usmagama and its Members, Chile* [2013] Inter American Commission on Human Rights 1288-06, 29/13 (2013).

⁶⁰² Macpherson, *supra* note 41 at 200-201.

⁶⁰³ Human Rights Council, *Report of the Special Rapporteur on the situation of human rights and fundamental freedoms of indigenous people, Mr. Rodolfo Stavenhagen* (2003) UN Doc E/CN.4/2004/80/Add.3 at para 35.

⁶⁰⁴ *Case of Norín Catrimán et al (Leaders, Members and Activist of the Mapuche Indigenous People v Chile)* (29 May 2014), Merits, Reparations, Costs, IACHR, Ser C 279, online: (pdf): *Inter-American Court of Human Rights* <https://www.corteidh.or.cr/docs/casos/articulos/seriec_279_ing.pdf>.

ii. The Right to Consultation on Legislative and Administrative Measures affecting Indigenous Interests

Chile's 2007 vote for UNDRIP and 2008 ratification of ILO Convention 169 initiated domestic lawmaking procedures for a state duty to consult on measures foreseen to affect Indigenous peoples directly.⁶⁰⁶ However, the duty to consult is likely too weak a standard in considering nation-wide turns toward sovereignty and self-determination,⁶⁰⁸ and contingent Indigenous control over "institutions, ways of life and economic development".⁶⁰⁹ Post-Pinochet, Mapuche organizations mobilized against the state's claimed focus on poverty alleviation, and contradictory action of increasing financing for natural resource extraction.⁶¹⁰ After the events of Lumaco from 1997-98, the grassroots Mapuche organization, CAM established itself on the premise of breaking "all dialogue with the Executive", remaining an influential movement today.⁶¹¹

The recent failed vote in 2022 to approve a new constitution is interpreted by a member of the Comunidad de Historia Mapuche as partly explained by suspicion of the proposed text's first article; suggesting whether drafters seriously entered dialogue with grassroots organizations.⁶¹² Namely, the proposed text begins with designation of the Chilean state as

⁶⁰⁶ Magdalena Ugarte, "Regulating the Duty to Consult: Exploring the Textually Mediated Nature of Indigenous Dispossession in Chile", in P. C. Luken & S. Vaughan, eds, *The Palgrave Handbook of Institutional Ethnography* (Palgrave, 2021) 213 at 215; ILO Convention 169, Arts 6, 7.

⁶⁰⁸ Arnulf Becker Lorca & Amaya Alvez Marin, "La Consulta Indígena en Chile: ¿Derecho de Participación o de Libre Determinación?/ Indigenous Consultation in Chile: Right of Participation or Self-Determination?" (2020) 59 *Estudios Sociales* 89 at 105-06.

⁶⁰⁹ ILO Convention 169, preamble.

⁶¹⁰ Viera-Bravo, "Principios del Mapuche Mongen", *supra* note 29 at 91.

⁶¹¹ Verónica Figueroa Huencho, "Indigenous Movements in Chile: Toward Self-Determination or Recognition?", in Bernardo Navarrete & Victor Tricot, eds, *The Social Outburst and Political Representation in Chile* (Springer Nature, 2021) 93 at 101; See Alejandra Gaitan Barrera, "Coordinadora Arauco Malleco: Recovering Pre-Colonial Autonomy in Wallmapu" (1 October 2014), online: IC <<https://intercontinentalcry.org/recovering-pre-colonial-autonomy-wallmapu-25677/>>; teleSUR, "Chilean Police Arrest Mapuche Leader Accused of Arson" (24 August 2022), online: *teleSUR English* <<https://www.telesurenglish.net/news/Chilean-Police-Arrest-Mapuche-Leader-Accused-of-Arson-20220824-0016.html>>.

⁶¹² Nahuelpán et al, "Colonial Recognition", *supra* note 71 at 439.

“plurinational”: a contested concept in recent decades, especially in sometimes suggesting “realignment of state and colonial governance”.⁶¹³ This provision was negatively viewed by Indigenous and non-Indigenous peoples, with a survey by the Center for Investigative Journalism in Chile showing a 41% negative evaluation at the lowest Likert scale rating.⁶¹⁴

Mapuche perceive a “New Pacification” enabled by *kuxanxan* (colonial violence) still embedded in transnational resource extraction and criminalization of protest.⁶¹⁵ In an effort to demobilize future Mapuche land reclamations, persuasive and coercive means are used by extractive industries, especially forestry.⁶¹⁶ For example, companies will invite Mapuche to purchase their usurped lands, but with the caveat they must grow pine and eucalyptus.⁶¹⁷

Most recently, according to Nahuelpan, when participation in these agreements fails, Mapuche are publicly framed as narco-terrorists, legitimizing persecution of Mapuche leaders and activists.⁶¹⁸ “The narco-trafficking narrative” acts to repress Mapuche resistance in granting state forces greater autonomy to use more covert forms of force like tapping phones and planting infiltrators.⁶¹⁹ Continued violence clearly indicates supremacy of one nation against another, limiting perceived legitimacy of participation through plurinationalism.⁶²⁰ In the last two decades, more than 100 Mapuche leaders have been incarcerated through anti-terrorism legislation stemming from territorial demonstrations against extractive industries.⁶²¹

As a response to ongoing state violence, Mapuche turns to self-determination are fundamentally about “recovery and control of land” in the face of poverty and limited

⁶¹³ *Ibid* at 440; See Nahuelpan et al, “In Wallmapu, “Colonialism and Capitalism”, *supra* note 66 at 301-02.

⁶¹⁴ Viera-Bravo, “*Küme mongen*”, *supra* note 56 at 14.

⁶¹⁵ Caniupan, Moreno, & Mariano, *supra* note 349 at 79.

⁶¹⁶ Nahuelpan et al, “In Wallmapu, Colonialism and Capitalism”, *supra* note 66 at 301-02.

⁶¹⁷ *Ibid* at 301.

⁶¹⁸ Nahuelpan, “In Wallmapu, Colonialism and Capitalism”, *supra* note 66 at 302.

⁶¹⁹ *Ibid*.

⁶²⁰ Huencho, *supra* note 611 at 104.

⁶²¹ Vargas-Forman, Viera-Bravo, & Pichún-Collonao, at 83.

territory.⁶²² Grassroots movements in recent years, like Mapuche Lavkenche Resistance (2018) and Weichan Auka Mapu (2014), organized on the basis of active defence of lands, and towards eventual recovery and control.⁶²³

Regarding cross-border political mobilization along the borders of Peru and Bolivia, Aymara communities still experience high levels of political marginalization.⁶²⁴ Otherwise, Chilean representatives hold stereotypical views of Aymara problems like the absence of “*ajayu* [spirit, soul, or vital force], soul pain, [or] land grabbing”, without addressing fundamental issues like water availability and pollution posed by continued approvals of mining activity.⁶²⁵

Despite Chile’s monist constitutional framework,⁶²⁶ implementation of the duty to consult under ILO Convention 169, and UNDRIP’s standard of free, prior, and informed consent is respectively limited and absent.⁶²⁷ Consultation on legislative and administrative action is regulated under 2013’s Decree 66 (“D66”).⁶²⁸ Under Article 7, the duty to consult considers “all possible efforts” by relevant authorities to obtain the consent of Indigenous peoples. However, sufficient efforts may fall below a standard of consent.⁶²⁹

Chile’s implementation of the requirement in ILO Convention 169 for consultation regarding legislative and constitutional changes provides insufficient protection of rights potentially impacted by state law-making.⁶³⁰ The duty to consult emphasizes procedural opportunities in law, but not their effectiveness in establishing Indigenous control through

⁶²² Nahuelpán et al, “Colonial Recognition”, *supra* note 71 at 440.

⁶²³ Huencho, *supra* note 611 at 102.

⁶²⁴ Miranda, *supra* note 139 at 117-18.

⁶²⁵ Alejandra Carreño-Calderón, trans. By Mariana Ortega-Breña, “Living Well and Health Practices among Aymara People in Northern Chile” (2021) 48:3 Latin American Perspectives 69 at 76.

⁶²⁶ Macpherson, *supra* note 41 at 208.

⁶²⁷ Ugarte, “Regulating the Duty to Consult”, *supra* note 606 at 223.

⁶²⁸ Lorca & Marin, *supra* note 608 at 91.

⁶²⁹ Tomaselli, *supra* note 498 at 122.

⁶³⁰ *Ibid* at 124-25; ILO Convention 169, Arts 6, 7.

consent.⁶³¹ For example, former Bills to reform the *Water Code* were “promising”, but the state continually failed to reach consensus with Indigenous peoples during meetings.⁶³²

As well, the duty to consult is triggered only if administrative or legislative measures likely cause a “significant and specific impact”.⁶³³ During the drafting process of D66, government officials inscribed a limited the scope of measures that trigger consultation.⁶³⁴ As such, the meaning of “significant and specific impact”, the specific administrative measures to consult, and phases of the consultation process were never agreed upon, leaving standards below what was requested during drafting process participation.⁶³⁵

Indigenous peoples requested inclusion of language denoting impacts on “worldview”, to better capture the meaning of direct impacts. Instead, reference to spirituality, culture, and traditions are included.⁶³⁶ To be “affected directly” is controlled and narrowed by state officials to maintain industry efficiency, excluding cosmology key to Indigenous laws.⁶³⁷ As such, Indigenous peoples are excluded from participating in constitutional reforms to better protect their rights and legal orders, especially toward the eventual goal of land recuperation and water rights.⁶³⁸

iii. EIA Regulation

Most consultations in Chile since 2008 implementation of ILO Convention 169 are investment projects involving natural resource extraction.⁶³⁹ Indigenous peoples advocated for a

⁶³¹ Lorca & Marin, *supra* note 608 at 93.

⁶³² Macpherson, *supra* note 41 at 209.

⁶³³ Tomaselli, *supra* note 498 at 122.

⁶³⁴ Ugarte, “Regulating the Duty to Consult”, *supra* note 606 at 228.

⁶³⁵ *Ibid* at 218.

⁶³⁶ *Ibid* at 228.

⁶³⁷ *Ibid* at 231.

⁶³⁸ Tomaselli, *supra* note 498 at 122.

⁶³⁹ Ugarte, “Regulating the Duty to Consult”, *supra* note 606 at 229.

single regulatory document under D66, including investment projects with potential environmental impacts.⁶⁴⁰ Instead, EIA mandates for investment projects are specified in a separate document, Decree 40 (“D40”).⁶⁴¹ Most projects with the potential to have lasting impacts on Indigenous lands and waters are regulated by D40, also lacking effective translation of international standards to protect lands and waters.

Under D40, EIA is required for mining, agribusiness, and aquaculture projects built within or close to territories.⁶⁴² However, the duty is triggered only for projects with “high impact”.⁶⁴³ In practice, consultation may never occur,⁶⁴⁴ or most consultations occur too late, where Indigenous customs undergo “significant alteration”.⁶⁴⁵ Determination of high-impact projects through the Environmental Qualification Resolution occurs after a project is registered by the state, usually after an exploration phase.⁶⁴⁶ Political capacity for Indigenous participation in decision-making regarding development affecting lands and resources is severely limited.⁶⁴⁷ In 2019, Mapuche history professor and CONADI advisor, José Millalen Paillal, called the consultation process a threat to the recovery of land.⁶⁴⁸

iv. Consideration of Indigenous Rights in FTA Sustainability Impact Assessment

⁶⁴⁰ *Ibid.*

⁶⁴¹ Ugarte, “Regulating the Duty to Consult”, *supra* note 606 at 229; Tomaselli, *supra* note 498 at 122; Lorca & Marin, *supra* note 608 at 90.

⁶⁴² Tomaselli, *supra* note 498 at 122.

⁶⁴³ *Ibid.*

⁶⁴⁴ Ugarte, “Regulating the Duty to Consult”, *supra* note 606 at 230.

⁶⁴⁵ Tomaselli, *supra* note 498 at 122.

⁶⁴⁶ Ugarte, “Regulating the Duty to Consult”, *supra* note 606 at 229.

⁶⁴⁷ *Ibid.*

⁶⁴⁸ Paula Huenchumil, “La Consulta Indígena es una amenaza a la recuperación de la tierra” (17 June 2019), online: *Interferencia* <https://interferencia.cl/articulos/la-consulta-indigena-es-una-amenaza-la-recuperacion-de-la-tierra?fbclid=IwAR1CqnPPwJ5m47_Qq5C6A-ni3vUQzdVCbSS2fSI93U7rvZOzSd850l9MfiU>.

International human rights bodies express concern over the impact of free trade policies on Indigenous peoples in Latin America, calling for mandatory consultation on free trade agreements.⁶⁵⁰ Early international advocacy for the right to water resulted in the Indigenous Peoples Kyoto Water Declaration of 2003, calling on the EU to discontinue free trade activities in the Americas.⁶⁵¹ In 2011, the UN Special Rapporteur on the Right to Food published the Guiding Principles on Human Rights Impact Assessment (HRIA), stating communities directly affected by trade agreements should be consulted, where no trade agreement should be concluded without public debate.⁶⁵²

Chile and the EU signed the EU-Chile Association Agreement (“ECAA”) in 2002, including a free trade and foreign investment chapter.⁶⁵⁶ The ECAA develops previous relations established in 1996, the Framework Cooperation Agreement.⁶⁵⁷ Article 2 of the ECAA establishes association between the European Community’s member states and Chile, eliminating barriers to trade and establishing rules for exporters, importers, and investors.⁶⁵⁸ In Article 1, the ECAA holds sustainable socio-economic development and respect of fundamental human rights as guiding principles.⁶⁵⁹ As such, respect for human rights operates with conflict resolution measures in case of violation.⁶⁶⁰ Article 200 provides that state parties may invoke this

⁶⁵⁰ Human Rights Council, Report of the Special Rapporteur on the Rights of Indigenous Peoples: Note by the Secretariat (2016) UN Doc A/HRC/33/42 at para 38; International Work Group for Indigenous Affairs (IWGA), “IACHR: Demands on indigenous consultation to ratify free trade agreements” (December 2016), IWGA online: <<https://www.iwgia.org/en/panama/2474-iachr-demands-on-indigenous-consultation-to-ratify.html>>; CERD, *Concluding Observations: Mexico* (2006) UN Doc CERD/C/MEX/CO/15 at para 15; CESCR, *Concluding Observations: Colombia* (2010) UN Doc E/C.12/COL/CO/5 at para 10.

⁶⁵¹ Piotr Szwedo, *Cross-border Water Trade: Legal and Interdisciplinary Perspectives* (Brill, 2019) at 222.

⁶⁵² Dommen, *supra* note 543 at 304, 314.

⁶⁵⁶ Ioannides, *supra* note 543 at 119, 125; *EU-Chile Association Agreement*, 2002, 30.12.2002 (entered into force 2003), online (pdf): *European Commission* <http://eur-lex.europa.eu/resource.html?uri=cellar:f83a503c-fa20-4b3a-9535-f1074175eaf0.0004.02/DOC_2&format=PDF>.

⁶⁵⁷ Ioannides, *supra* note 543 at 119; European Commission, “Impact Assessment”, *supra* note 545 at 4.

⁶⁵⁸ Ioannides, *supra* note 543 at 119.

⁶⁵⁹ *Ibid* at 120.

⁶⁶⁰ Giulia D’Agone, “Environmental conditionality in EU-Latin America trade relations” (2021) 1:1 *Latin American Journal of European Studies* 39 at 47.

subclause when human rights violations occur by taking appropriate measures in accordance with international law.⁶⁶¹

Consideration of human rights aims to operationalize the principle of sustainable development, which is to “meet the needs of the present without compromising the ability of future generations to meet their own needs”.⁶⁶² Economic, social, human rights, and environmental impacts form four “sustainability pillars” in applying sustainable development within the EU’s global development and cooperation strategy.⁶⁶³ Like other FTAs in Latin America, the parties agree not to lower environmental and human rights protections to facilitate trade and development.⁶⁶⁴ Since 2001, the EU’s global development strategy under this principle is to eradicate poverty while respecting environmental, labour, and human rights protections.⁶⁶⁵

However, the suspension/democracy clauses in the ECAA have never been used.⁶⁶⁶ The ECAA does not contain sustainability provisions on food security, and the concomitant right to water.⁶⁶⁷ As well, the ECAA’s text does not consider Indigenous rights explicitly, but rather includes articles on cooperation with vulnerable groups and ethnic minorities regarding sustainable development and human rights.⁶⁶⁸

⁶⁶¹ Ioannides, *supra* note 543 at 121.

⁶⁶² *Report of the World Commission on Environment and Development: Our Common Future* (1987), online: *United Nations* <<https://sustainabledevelopment.un.org/content/documents/5987our-common-future.pdf>> at para 27.

⁶⁶³ BKP Development Research & Consulting, “Sustainability Impact Assessment in Support of the Negotiations for the Modernisation of the Trade Part of the Association Agreement with Chile” Final Report prepared for the European Commission (7 May 2019) at xi.

⁶⁶⁴ Lorand Bartels, “Human rights and sustainable development obligations in EU free trade agreements”, in David Kleimann, ed, *EU Preferential Trade Agreements: Commerce, Foreign Policy and Development Aspects* (European University Institute, 2013) 127 at 134-35.

⁶⁶⁵ *Ibid* at 133-34, 137.

⁶⁶⁶ Ioannides, *supra* note 543 at 121; European Commission, “Impact Assessment”, *supra* note 545 at 34.

⁶⁶⁷ Jan Hagemeyer et al, “Trade aspects of the EU-Mercosur Association Agreement” (2021) European Parliament Working Paper PE 653.650 at 82.

⁶⁶⁸ Ioannides, *supra* note 543 at 150.

Negotiations for modernization of the ECAA began in 2017 and ended in 2022 with an agreement in principle.⁶⁸² External consulting agencies conduct SIAs on behalf of the EU during major trade negotiations for stakeholders and policymakers.⁶⁸³ The SIA is a multi-year process, ending with a final report by the consultation agency, and EU response in a Position Paper. The Position Paper considers the report's recommendations and whether any may be implemented in the final agreement.⁶⁸⁴ However, tying international agreements to state human rights obligations only appears to re-embed domestic participation at the "interstate negotiating table".⁶⁸⁵

The initial SIA notes that "the EU and Chile conduct regular Human Rights Dialogue" where the rights of vulnerable groups like Indigenous peoples is a major concern.⁶⁸⁶ It also acknowledges the twin Covenants, the European Convention on Human Rights and the American Convention on Human Rights as accepted standards for implementation and protection.⁶⁸⁷

The EU acknowledges that the rights of Indigenous peoples could be influenced by "intensification of trade and investment with the EU through a modernized Association agreement".⁶⁸⁸ Yet the report calls mining a marginal source of conflict. Since minerals are already largely tariff free, no significant impact from increased trade activity is predicted.⁶⁸⁹ In other words, impact is assessed from circumstances existing from the 2003 agreement onward,

⁶⁸² Gisela Grieger, "Modernisation of the trade pillar of the EU-Chile Association Agreement" (2023) European Parliamentary Research Service Briefing PE 630.278 at 1.

⁶⁸³ European Commission, "European Commission Services' Position Paper on the Sustainability Impact Assessment in Support of Negotiations for the Modernisation of the Trade Part of the EU-Chile Association Agreement" (2020) 1 at 2, online (pdf): *European Union* <<https://circabc.europa.eu/rest/download/118c8984-9c2b-4426-801f-323807511cb9>>.

⁶⁸⁴ Thomas Dauphin & Mathilde Dupré, *The European Commission's Trade Sustainability Impact Assessments: A Critical Review* (Veblen Institute for Economic Reforms & Greenpeace, 2022) at VI.

⁶⁸⁵ Harlan Grant Cohen, "What is International Trade Law For?" (2019) 113:2 *The American Journal of International Law* 326 at 338-39.

⁶⁸⁶ European Commission, "Impact Assessment", *supra* note 545 at 34.

⁶⁸⁷ *Ibid.*

⁶⁸⁸ European Commission, "Impact Assessment", *supra* note 545 at 35.

⁶⁸⁹ *Ibid.*

rather than setting new baselines by assessing the environment.⁶⁹⁰ This ignores ongoing water scarcity facilitated by state-sanctioned mining activity. As noted previously, mining regulation fragments nature, failing to understand interconnected surface and groundwater flows and required recharge times, instead increasing irrigation to sustain copper and lithium extraction. The disruption of groundwater recharge, combined with toxic dust and spills, reduces water quality and quantity for Aymara subsistence practices. Increasing desertification and loss of biodiversity is reported by Aymara in agrarian areas.

SIAs consider trade value chains in forestry/timber, minerals, fish/aquaculture, and effects on climate change and biodiversity.⁶⁹¹ Firstly, recall that extraction of timber from planted pine and eucalyptus, and non-native fruit like avocado, drives water scarcity through three main mechanisms: 1) non-native trees' need for greater water than traditional cereals, 2) the concomitant need for greater irrigation infrastructure, and 3) the reduction of biodiversity from monoculture plantations, disrupting healthy groundwater recharge. Water scarcity directly affects traditional agriculture and animal herding practices, developed across millennia in reciprocity with land and waters.

The 2018 SIA Interim Report on the proposed AFA addresses Indigenous rights in the context of “trade in agricultural products, fishing, mining and renewable energy”.⁶⁹² However, it makes no determination as to whether increases in trade and production will be beneficial or harmful for Indigenous peoples.⁶⁹³ In contrast, a 2022 post-AFA human rights assessment by the Institute for European Environmental Policy highlights water scarcity and pollution in

⁶⁹⁰ Eline Blot & Susanna Li, “Post-FTA Briefing: EU-Chile” (March 2023) at 5, online (pdf): *Institute for European Environmental Policy* <<https://ieep.eu/publications/post-fta-briefing-eu-chile/>>.

⁶⁹¹ Hagemeyer et al, *supra* note 667 at 82.

⁶⁹² Dommen, *supra* note 543 at 309.

⁶⁹³ *Ibid.*

Indigenous communities as key sustainability issues. That FTA analysis notes three main industries affecting the water crisis: lithium and copper mining, commercial agriculture, and salmon aquaculture.⁶⁹⁴ Regarding the latter, recall that Chile's regulation of fisheries currently facilitates overbreeding in salmon farms, limits on Indigenous participation in decision-making, as well as territorial allocations for traditional *Lafkenche* fishing practices, thereby encouraging conflict through competitive exploitation of the coastal environment. The result is increasing pollution from salmon farms, affecting underwater sediment, biodiversity, and health of aquatic ecosystems.

Indeed, the EU is aware that Chile lacks domestic regulatory protections for Indigenous peoples. A 2017 ex-post human rights impact review of the ECAA by the EU criticizes Chile's regulation of consultation. By design, domestic consultation legislation ignores Indigenous conceptions of adequate participation, and lacks any reference to UNDRIP.⁶⁹⁵ The EU notes the ILO's disapproval of associated consultation schemes in 2014.⁶⁹⁶ Further, echoing the Economic Commission for Latin America, the EU notes Indigenous peoples' rights are not recognized in the constitution, despite recognition in the *Indigenous law*.⁶⁹⁷ Continued violence against Mapuche peoples is noted, including the 2012 and 2016 shootings of Mapuche *longkos* by police during demonstrations in defence of land, and eventual acquittals of police officers involved.⁶⁹⁸

In the final SIA report, predictions regarding the effect of the AFA on vulnerable peoples and lands is hedged in ambiguity. The AFA will not "directly" cause "existing problems" associated with industrial development on fragile lands and waters ("sacrifice zones"), but "it is

⁶⁹⁴ Blot & Li, *supra* note 690 at 3-4.

⁶⁹⁵ Ioannides, *supra* note 543 at 151.

⁶⁹⁶ *Ibid.*

⁶⁹⁷ Ioannides, *supra* note 543 at 152.

⁶⁹⁸ *Ibid.*

difficult to exclude the possibility that it might lead to increased economic activity in sectors that are situated in these areas”.⁷²¹ Illogically, the AFA’s impact on human rights from economic changes is predicted to be minor.⁷²²

The European Commission responded to the final SIA report with its Position Paper in 2020. The Position Paper acknowledges that the SIA concludes an overall minor effect on human rights in Chile and the EU.⁷²⁴ It also “agree[s] on the need to uphold the rights of indigenous peoples and their right to free, prior, and informed consent to any development activities”,⁷²⁵ despite previously acknowledging the absence of adequate consultation measures in 2017, due to exclusionary language legally inscribed by D66.⁷²⁶

On June 2022, the European Commission published the Trade and Sustainable Development (TSD) Action Plan, outlining the addition of a TSD chapter to the modernized agreement.⁷²⁷ The Executive Vice-President and Commissioner of Trade states in a press release, “Our trade agreements give us clout on the world stage and support economic growth and sustainable development – but as of now...we will step up our enforcement, and we will resort to sanctions if key labour and environmental commitments are not met”.⁷²⁸

On December 2022, the EU and Chile ended negotiations and agreed to deepen existing bilateral trade relations.⁷³⁰ Under article 26.23 of the agreement, a TSD sub-committee must

⁷²¹ BKP Development Research & Consulting, *supra* note 663 at xii-xiii.

⁷²² *Ibid.*

⁷²⁴ European Commission, “Position Paper”, *supra* note 683 at 5.

⁷²⁵ European Commission, “Position Paper”, *supra* note 683 at 16.

⁷²⁶ Blot & Li, *supra* note 690 at 3-4.

⁷²⁷ Eline Blot, “Green horizons – Towards more sustainable trade after the TSD Review” (2022) *Perspectivas – Journal of Political Science* 93 at 94.

⁷²⁸ European Commission, Press Release, IP/22/3921, “Commission unveils new approach to trade agreements to promote green and just growth” (22 June 2022), online: *European Commission* <https://ec.europa.eu/commission/presscorner/detail/en/ip_22_3921>.

⁷³⁰ European Commission, Press Release, IP/22/7569, “EU and Chile strengthen a comprehensive political and trade partnership” (9 December 2022), online: *European Commission* <https://ec.europa.eu/commission/presscorner/detail/en/ip_22_7569>.

discuss and consider implementation of TSD policy in line with international agreements.⁷³¹ This allows for the possibility that TSD provisions may be amended as developments in international law take place, including if human rights violations are alleged.⁷³²

However, the AFA is procedurally limited in terms of TSD provisions.⁷³³ Only states may file complaints on behalf of individuals, precluding private or non-governmental entities from lodging complaints from breach of the democracy clause.⁷³⁵

B) Discrimination and Reregulation

Puig notes that international agreements can “aggravate the problem of extreme poverty and social exclusion by shifting the governance and regulatory priorities of developing states”.⁷³⁶ While the principle of sustainable development and human rights ostensibly aims to temper economic imperatives like market efficiency or economic growth, the ECAA and modernized AFA provide weak protection for Indigenous peoples and the environment in comparison to economic restructuring entailed by trade agreements.⁷³⁷ International agreements and co-relative state-investor rights and obligations “may chill measures that are effective in realizing human rights”.⁷³⁸ Constitutional protection of private property, financial support for mining, forestry, aquaculture, and effective enforcement through investor-state arbitration collectively ensure protection of industry rights to the detriment of Indigenous ways of life.

The idea of Chile as a “free market miracle”, ignores the continuing impact of economic restructuring on Indigenous rights and the environment, initiated by the Chicago Boys’ program

⁷³¹ Blot, *supra* note 727 at 102.

⁷³² *Ibid*; Ioannides, *supra* note 543 at 31.

⁷³³ Blot, *supra* note 727 at 100.

⁷³⁵ *Ibid*.

⁷³⁶ Puig, “International Indigenous Economic Law”, *supra* note 216 at 1265.

⁷³⁷ *Ibid*.

⁷³⁸ *Ibid*.

of export-led growth and foreign investment.⁷³⁹ The notion of a “free market” is a misnomer, in considering how control over environment and natural resources are produced and reinforced by domestic networks of corporate-state law and international commodity value chains.⁷⁴⁰

Rather, a historical-institutional approach to Chile’s export-oriented market considers relations with the EU preceding the ECAA as part of strengthening European influence on domestic policy.⁷⁴¹ Having considered the connection between land dispossession and natural resource regulation, the international context driving free trade and foreign investment in associated industries reinforces productive capacity and the overextraction of water.⁷⁴² In this section, I consider liberalized trade and foreign direct investment chapters in the ECAA, and recent modernization through the AFA.

i. Foreign Investment

International capital's influence through foreign investment provides greater context than provided by EU assessments of FTA economic impact. For example, in the 2017 ex-post impact assessment of the ECAA, the EU states that the agreement’s facilitation of free trade and investment is largely a result of Chile’s market opening since the 1990s.⁷⁴³ As such, the economic impact of the agreement is “very small”, in consideration of “the cumulative effect of FTAs signed by Chile with [other] third countries/partners”.⁷⁴⁴ In other words, the EU claims it cannot take responsibility for increased economic activity through the ECAA.

⁷³⁹ Amir Lebdioui, “Chile’s Export Diversification since 1960: A Free Market *Miracle* or *Mirage*?” (2019) 50:6 Development and Change 1624 at 1630.

⁷⁴⁰ Manuel Prieto et al, “The (not-so-free) Chilean water model”, *supra* note 395 at 5-6; See Judith Verweijen & Alexander Dunlap, “The evolving techniques of the social engineering of extraction: Introducing political (re)actions ‘from above’ in large-scale mining and energy projects” (2021) 88 Political Geography e1 at e2.

⁷⁴¹ Francis Espinoza-Figueroa, “The impact of European political dialogue upon Chilean and Mexican domestic policies”, in María J. García & Arantza Gómez Arana, eds, *Latin America-European Union Relations in the Twenty-First Century* (Manchester University Press, 2022) 172 at 172.

⁷⁴² Garcia, “Incidents along the Path”, *supra* note 544 at 505.

⁷⁴³ Ioannides, *supra* note 543 at 118.

⁷⁴⁴ *Ibid.*

Yet in the first 10 years after the ECAA went into effect, EU investments in Chile doubled.⁷⁴⁵ Indeed, the ECAA contains a provision to protect and promote ongoing investments between state parties' investors.⁷⁴⁶ EU FDI stocks are primarily in water, energy, telecommunications, and financial services, but also manufacturing linked with "fisheries and aquaculture, agriculture, livestock and forestry".⁷⁴⁷ This is especially true with Spain, Italy, France, and the Netherlands.⁷⁴⁸

Since 2010, the EU remains Chile's largest foreign investor, constituting 36% of Chile's total foreign direct investment (FDI).⁷⁴⁹ EU member state investment in Chile continues to rise since the 1980s, preceding the 2002 ECAA.⁷⁵⁰ Most FDI in the 1990s concentrated on copper mining, and utilities like water, electricity, and gas.⁷⁵¹ Already by 1998, some of Chile's municipal water utilities were owned by French (Suez) and British (Thames) multinational water corporations.⁷⁵²

From 1976-1982, massive foreign capital flowed to Chile, enabled through the 1974 Foreign Investment Statute ("DS600").⁷⁵³ It provided foreign companies equal treatment in all sectors of the economy with "minimal government intervention in investment activities"

⁷⁴⁵ Bat 6.

⁷⁴⁶ Rodrigo Polanco, "EU Investment Policy: Regional Convergence or International Standards?", in Francesco Duina & Crina Viju-Miljusevic, eds, *Standardizing the World: EU Trade Policy and the Road to Convergence* (Oxford University Press, 2023) 103 at 113.

⁷⁴⁷ Beatriz Hernández, "Modernising the EU-Chile Association Agreement: strengthening an alliance for social inclusion and environmental sustainability" (2022) Fundación Carolina/Fundación EU-LAC Occasional paper FC/EU-LAC 1 at 6.

⁷⁴⁸ Grieger, *supra* note 682 at 4; Garcia, "Incidents along the Path", *supra* note 544 at 503.

⁷⁴⁹ B Hernández, *supra* note 747 at 6; Ioannides, *supra* note 543 at 127.

⁷⁵⁰ Maria Garcia, "Chile and the European Union" in *Oxford Research Encyclopedia, Politics* (27 August 2020) at 8, online: *Oxford University Press* <<https://doi.org/10.1093/acrefore/9780190228637.013.1077>>.

⁷⁵¹ José Miguel Ahumada, *The Political Economy of Peripheral Growth: Chile in the Global Economy* (Springer Nature, 2019) at 213.

⁷⁵² Bronwen Morgan, *Water on Tap: Rights and Regulation in the Transnational Governance of Urban Water Services* (Cambridge University Press, 2011) at 118.

⁷⁵³ Carlo Edoardo Altamura, "Global Banks and Latin American Dictators, 1974-1982" (2021) 95 *Business History Review* 301 at 303; Claudio Bravo-Ortega & Nicolas Eterovic, "A Historical Perspective of a Hundred Years of Industrialization: From Vertical to Horizontal Policies in Chile" (2015) Universidad de Chile, Departamento de Economía Working Paper SDT 399 at 60.

including repatriation of profits at no cost.⁷⁵⁴ Crucially, it guaranteed constitutional protection of ownership interests.⁷⁵⁵

During the 1980s, Spanish investment in Chile's wine market encompassed a major European presence, building on Spain's earlier importation of grape production technology in the late 1970s.⁷⁵⁶ From the mid-1980s onward, Spanish "investor confidence" in private property protections and domestic subsidies expanded foreign investment by multinational corporations in the fruit sector.⁷⁵⁷ Estimated in 2020, Spain is one of 5 multinational groups that control 70% of Chile's total road project infrastructure in commercial agriculture.⁷⁵⁸

Early on, multinational copper and lithium corporations took advantage of mining rights concessions providing constitutional protection of private property.⁷⁵⁹ DS600 is partly responsible for Chile's late 1980s-90s explosion of foreign investment in the copper industry.⁷⁶⁰ Beginning in the early 1980s, British, Australian, and Japanese investors increasingly owned mining operations in copper and lithium.⁷⁶¹ Most FDI for mining in the 1990s funded new infrastructure to expand copper mining locales,⁷⁶² with a fivefold increase in mining FDI from 1990-1998, relative to 1974-1989.⁷⁶³ From 2009-2016, mining industries received 33% of total FDI,⁷⁶⁴ a trend expected to continue with Chile approving new investments.⁷⁶⁵

⁷⁵⁴ Bravo-Ortega & Eterovic, *supra* note 753 at 60; Ahumada, *supra* note 751 at 75.

⁷⁵⁵ Bravo-Ortega & Eterovic, *supra* note 753 at 60.

⁷⁵⁶ Lebdioui, *supra* note 739 at 1645.

⁷⁵⁷ Martín Arboleda & Thomas F. Purcell, "The rentierization of food: regimes of property and the making of Chile's globalized agriculture" (2022) *The Journal of Peasant Studies* 1 at 14.

⁷⁵⁸ *Ibid* at 12.

⁷⁵⁹ Jennapher Lunde Seefeldt, "Lessons from the Lithium Triangle: Considering Policy Explanations for the Variation in Lithium Industry Development in the 'Lithium Triangle' Countries of Chile, Argentina, and Bolivia" (2020) 48:4 *Politics & Policy* 727 at 740-41.

⁷⁶⁰ Bravo-Ortega & Eterovic, *supra* note 753 at 61.

⁷⁶¹ Philip Maxwell & Mauricio Mora, "Lithium and Chile: looking back and looking forward" (2019) 33 *Mineral Economics* 57 at 66.

⁷⁶² Ahumada, *supra* note 751 at 213.

⁷⁶³ Romero Toledo, Videla, Gutiérrez, *supra* note 79 at 237.

⁷⁶⁴ Ahumada, *supra* note 751 at 213.

⁷⁶⁵ Rinaudo & Donoso, *supra* note 405 at 288.

On the other hand, the instability posed by a dictatorship hindered foreign direct investment in some areas of trade like aquaculture⁷⁶⁶ and timber.⁷⁶⁷ For example, “precarious infrastructure” in Chile’s southern regions, and low research and development, discouraged foreign investment in aquaculture from the mid-80s to early 90s.⁷⁶⁸ With regard to forestry, the lack of pulp and sawmills in 1986 resulted in far more raw timber than industry’s capacity to process and ship.⁷⁶⁹ From 1970 to the mid-1980s, private business and the public sector accumulated billions in foreign bank debt. Loans were necessary due to lack of infrastructure to generate funds through exports.⁷⁷⁰ Debt accumulated due to repayment depending on export capacity to generate funds.⁷⁷¹

Following the regional Latin American debt crisis in 1982, foreign *indirect* investment in forestry was facilitated by debt-for-equity swaps initiated by IMF and World Bank agreements with Pinochet in 1985.⁷⁷⁴ The same debt-equity swaps financed the aquaculture industry, with British and Japanese investors eventually owning the largest firms by the early 1990s.⁷⁷⁵ In 1982, Chile imported Norwegian salmon aquaculture technology to build feasibility in large-scale salmon farming for the export market, with private firms’ eventual success encouraging new

⁷⁶⁶ Carlos Chávez et al, “Main issues and challenges for sustainable development of salmon farming in Chile: a socio-economic perspective” (2019) 11 *Reviews in Aquaculture* 403 at 405.

⁷⁶⁷ Susanna Laaksonen-Craig, “The Determinants of Foreign Direct Investments in Latin American Forestry and Forest Industry” (2008) 27:1-2 *Journal of Sustainable Forestry* 172 at 176.

⁷⁶⁸ Chávez et al, *supra* note 766 at 405.

⁷⁶⁹ Roger Alex Clapp, “Creating Competitive Advantage: Forest Policy as Industrial Policy in Chile” (1995) 71:3 *Economic Geography* 273 at 287.

⁷⁷⁰ Ricardo Ffrench-Davis, “Debt and Growth in Chile: Trends and Prospects”, in David Felix, ed, *Debt and Transfiguration: Prospects for Latin America’s Economic Revival* (Taylor & Francis, 1990) 144 at 145.

⁷⁷¹ Amir Lebdioui, Keun Lee, & Carlo Pietrobelli, “Local-foreign technology interface, resource-based development, and industrial policy: how Chile and Malaysia are escaping the middle-income trap” (2021) 46 *The Journal of Technology Transfer* 660 at 666.

⁷⁷⁴ Clapp, *supra* note 769 at 288; Jose Miguel Ahumada & Miguel Torres, “Chile, Globalization, and Imperialism”, in Immanuel Ness & Zak Cope, eds, *The Palgrave Encyclopedia of Imperialism and Anti-Imperialism* (Springer Nature, 2021) 301 at 304.

⁷⁷⁵ Nathanael Hishamunda & Neil B. Ridler, “Macro policies to promote sustainable commercial aquaculture” (2002) 10 *Aquaculture International* 491 at 496.

investments.⁷⁷⁶ From 1990-2014, FDI inflows to all natural resource export industries increased, with EU, China, and the US as main markets.⁷⁷⁷

2016 repeal of the Foreign Investment statute led to creation of the agency “InvestChile”, which actively promotes FDI in five main sectors, notably mining and food industries.⁷⁷⁸ Chile encourages foreign investors by guaranteeing security of capital in lands that may otherwise be expropriated by the state.⁷⁷⁹ While the ECAA did not contain investor-state dispute arbitration, the AFA’s agreement in principle will implement a new Investment Court System composed of permanent adjudicators appointed by both states.⁷⁸⁰ Much like investor-state arbitration, this will allow multinational corporations to sue states that breach AFA obligations.

Through a re-ordering of state obligations, investor rights protections conferred by international economic agreements like the ECAA and AFA, and reinforced by domestic foreign investment laws, are honoured by the state to the detriment of Indigenous peoples. What results is a “conflict of norms”, consisting of tension between co-relative rights and obligations between the state-investor relationship, and the Indigenous-state relationship.⁷⁸¹ A chilling effect occurs where states are less likely to institute protections for Indigenous peoples when foreign

⁷⁷⁶ Ahumada, *supra* note 751 at 88-9.

⁷⁷⁷ Ahumada, *supra* note 751 at 183; Bustos-Gallardo, Delamaza, & Rivas, *supra* note 74 at 112-13; Laaksonen-Craig, *supra* note 767 at 173.

⁷⁷⁸ Seonwook Choi, “New FDI Policy in Chile: Paradigm Shift or Change in Objective?” (2021) 1 Gobierno y Administración Pública 95 at 111.

⁷⁷⁹ European Commission, “EU-Chile Advanced Framework Agreement: Summary of the Trade and Investment Pillar at 11, online: *European Commission-Trade* <https://policy.trade.ec.europa.eu/eu-trade-relationships-country-and-region/countries-and-regions/chile/eu-chile-agreement/text-agreement_en>; See also Bravo-Ortega & Eterovic, *supra* note 753 at 51.

⁷⁸⁰ European Commission, “EU-Chile Advanced Framework Agreement”, *supra* note 779 at 11; Chile, Ministry of Foreign Affairs, Press Release, “Chile and the European Union bring the modernization of the Association Agreement to a political close” (9 December 2022), online: *Ministry of Foreign Affairs* <<https://www.minrel.gob.cl/news/chile-and-the-european-union-bring-the-modernisation-of-the-association>>.

⁷⁸¹ Joost Pauwelyn, *Conflict of Norms in Public International Law: How WTO Law Relates to Other Rules of International law* (Cambridge University Press, 2003) at 3, 9.

development impacts rights to land and water as part of foreign investment.⁷⁸² State obligations to protect investments encourage Chile to turn a blind eye to Indigenous human rights violations.⁷⁸³

This conflict of norms is inherent to free trade/foreign investment and the disproportionate effect on Latin American Indigenous peoples. The starkest contrast between rights and obligations conferred within the investor-state relationship versus Indigenous-state rights and obligations can be seen through the Inter-American Court case of *Kichwa v. Ecuador* (2012), and its corresponding investor-state arbitration case of *Burlington Resources Inc. v. Ecuador* (2010). In the latter proceeding, the oil and gas company claimed that Ecuador failed to meet obligations to give full protection and security against Kichwa opposition to development projects on traditional land.⁷⁸⁴ The company claimed the state did not use sufficient force to protect its investment.⁷⁸⁵ In the former case, the Inter-American court ruled that the state used unnecessary and excessive force against the Kichwa, threatening their existence.⁷⁸⁶ While the security aspect was rejected in the arbitration proceeding, neither the state nor the investor addressed the rights of Indigenous peoples in their arguments at arbitration.⁷⁸⁷

Consistent with the idea of a conflict of norms, it is not merely the rules that conflict, but the relative design of human rights versus investor rights as conferred by international economic obligations. The regulatory structure of investment law and its enforcement system tends to

⁷⁸² Puig, “International Indigenous Economic Law”, *supra* note 216 at 1266-67; Human Rights Council, “Report of the Special Rapporteur on the rights of indigenous peoples, 2016”, *supra* note 650 at paras 31-32.

⁷⁸³ Puig, “International Indigenous Economic Law”, *supra* note 216 at 1267; Chile has a long history of protecting state-subsidized development over subsistence ways of life, especially through mining: See Thomas Miller Klubock, “The Early History of Water Wars in Chile: Rivers, Ecological Disaster and Multinational Mining Companies” (2021) 27:3 Environment and History 421 at 421.

⁷⁸⁴ Human Rights Council, “Report of the Special Rapporteur on the rights of indigenous peoples, 2016”, *supra* note 650 at para 41.

⁷⁸⁵ *Ibid* at para 61.

⁷⁸⁶ *Ibid*.

⁷⁸⁷ *Ibid*.

favour multinational corporations.⁷⁸⁸ Indigenous rights and interests are effectively ignored in investor-state arbitration even when violations of their rights are “core issues underpinning the disputes in question, and the decisions could have...profound impacts on their rights and well-being”.⁷⁸⁹ International arbitrators lack experience in human rights law and see it as outside their mandate.⁷⁹⁰ While “carve-outs” in free trade agreements provide some protection for Indigenous peoples, protections for potential impacts to trade or other Indigenous interests are rarely included. Rather, investment law’s normative presumption is that obligations to the investor by the state are on the face of an agreement consistent with other human rights obligations. Including exceptions implies future difficulties securing obligations from states in connection with planned development projects.

ii. Free Trade

The market security provided by state-supported privatized natural resource sectors, and foreign investment, enhances Chile’s international appeal in trade. Beginning with Pinochet, the “nascent” forestry, fishing, and agribusiness industry instituted in the 70s were consolidated as key export sectors in the 80s and 90s.⁷⁹¹

The impact assessment report in 2017 on the ECAA fails to adequately acknowledge the relative role of the EU as a trading/investment partner, and its responsibility as a result.⁷⁹² After Chile joined the WTO in 1995,⁷⁹³ its legitimacy as a potential trade partner incited EU negotiations toward the ECAA, and US efforts to include Chile in NAFTA, with only the former

⁷⁸⁸ Puig, “International Indigenous Economic Law”, *supra* note 216 at 1287.

⁷⁸⁹ Human Rights Council, “Report of the Special Rapporteur on the rights of indigenous peoples, 2016”, *supra* note 650 at para 55.

⁷⁹⁰ Puig, “International Indigenous Economic Law”, *supra* note 216 at 1289.

⁷⁹¹ Ahumada & Torres, *supra* note 774 at 304.

⁷⁹² Ioannides, *supra* note 543 at 118.

⁷⁹³ World Trade Organization, “Chile and the WTO” (2023), online: WTO <https://www.wto.org/english/thewto_e/countries_e/chile_e.htm#:~:text=Chile%20has%20been%20a%20WTO,GA,TT%20since%2016%20March%201949.>>

being successful.⁷⁹⁴ In 1990, the Minister of Finance hinted in an address concerning the State of the Public Treasury that growing international competition in trade pushes Chile toward greater opening for foreign markets.⁷⁹⁵

Consider that following signing of NAFTA in 1994, the EU initiated trade negotiations with Mexico in pursuit of receiving economic treatment equivalent to the US and Canada.⁷⁹⁶ EU and other Latin American negotiators state that at the time of EU-Mexico's 2000 FTA, they saw its signing as a competition-minded EU response to the US-Canada relationship with Mexico through NAFTA.⁷⁹⁷

Chile began negotiations with the US following NAFTA, prompting the EU to begin negotiations with Chile toward the ECAA.⁷⁹⁸ Following the ECAA's signing in 2002, this agreement formed a "benchmark" for future EU FTAs in neighbouring Latin American countries.⁷⁹⁹ The ECAA develops earlier FTA frameworks from the 1990s that include "democracy" or "human rights" clauses to ensure respect of human rights obligations, coupled with "suspension" or "non-execution" clauses in case of breach.⁸⁰⁰ This indicates an increasingly more refined use of bilateral FTAs to remain competitive in global trade markets,⁸⁰¹ countering views held in 2007 that the EU has "no model FTA to form the basis of negotiations".⁸⁰² As stated in a recent working paper, the EU's motivation behind ECAA modernization is to *remain*

⁷⁹⁴ Ahumada & Torres, *supra* note 774 at 304-05.

⁷⁹⁵ Ahumada, *supra* note 751 at 109.

⁷⁹⁶ Stephen Woolcock, "European Union policy towards Free Trade Agreements" (2007) European Centre for International Political Economy Working Paper No 03/2007 at 3; Raymond J. Ahearn, "Europe's Preferential Trade Agreements: Status, Content, and Implications" (2010) US Congressional Research Service Report R41143 at 12.

⁷⁹⁷ Larry Crump, "Negotiation Process and Negotiation Context" (2011) 16 International Negotiation 197 at 212.

⁷⁹⁸ Woolcock, *supra* note 796 at 4; Crump, at 199; See also Jacopo Tavassi, "The regime of international investments within the EC-Chile Association Agreement: towards a possible renegotiation?" (2013) 14 The Journal of World Investment & Trade 352 at 359.

⁷⁹⁹ Ioannides, *supra* note 543 at 118.

⁸⁰⁰ Bartels, *supra* note 664 at 129-30.

⁸⁰¹ Garcia, "Incidents along the Path", *supra* note 544 at 501-02.

⁸⁰² Woolcock, *supra* note 796 at 2.

competitive within Chile's global trade/investment network.⁸⁰³ This historical relational process gradually incorporated sustainable development provisions seen in the proposed modernized text, yet fail to provide protection for affected Indigenous interests.⁸⁰⁴

In contrast, FTAs' facilitation of market security is reflected in increased export trade volumes.⁸⁰⁵ According to a statistical analysis of trade liberalization effects on export productivity, Chile's exports tripled after the ECAA entered into force in 2003.⁸⁰⁶ The average decrease in import tariffs inscribed by FTAs increases exporting countries' productivity from greater access to foreign markets.⁸⁰⁷ The ECAA led to a significant increase in trade, particularly Chile's export volume to the EU.⁸⁰⁸

Indeed, the EU is Chile's third-biggest market for exports, especially in fruit, timber, and minerals.⁸⁰⁹ These commodity flows represent a quarter of total EU imports from Chile.⁸¹⁰ Total trade in goods doubled from 2003-2011, with fruit and seafood significantly increasing.⁸¹¹ Between 2012 and 2017, Europe saw an average increase in avocado consumption of 179%, with predicted compound growth at an annual rate of 6.2% from 2017-2027.⁸¹² Between 2000-2015, Chile increased its pulp exports to the EU by 100%.⁸¹³ In 2018, forestry exports peaked, representing 9.1% of total export commodities.⁸¹⁴ Finally, the EU is the second largest global

⁸⁰³ Grieger, *supra* note 682 at 2.

⁸⁰⁴ Ioannides, *supra* note 543 at 118.

⁸⁰⁵ See Puig, International Indigenous Economic Law", *supra* note 216 at 1265.

⁸⁰⁶ Linarello, *supra* note 387 at 162.

⁸⁰⁷ *Ibid* at 161.

⁸⁰⁸ Ioannides, *supra* note 543 at 124.

⁸⁰⁹ Grieger, *supra* note 682 at 3.

⁸¹⁰ Ioannides, *supra* note 543 at 124.

⁸¹¹ *Ibid* at 125-26.

⁸¹² Sommaruga & Eldridge, *supra* note 308 at 48.

⁸¹³ González-Gómez, *supra* note 290 at 316.

⁸¹⁴ Hernán Cuevas Valenzuela et al, "Port-city symbiosis and uneven development: a critical essay on forestry exports and maritime trade Coronel, Chile" (2022) *Maritime Economics & Logistics* 1 at 10.

market for electric vehicles, importing almost 40% of its copper⁸¹⁵ and about 80% of its lithium from Chile.⁸¹⁶

The new AFA continues elimination of tariffs in fish and agriculture, and “will liberalise 96% of the tariff lines not yet liberalized on Chile’s side...over a maximum of 7 years”.⁸¹⁷ It also provides for greater access to lithium and copper.⁸¹⁸ Liberalization of tariffs is directly linked to increases in export productivity, and overextraction of water as a result.

States party to trade agreements may exercise measures to conserve resources in line with sustainable exploitation.⁸¹⁹ The principle of permanent sovereignty over natural resources is invoked as a shield in international trade law against “the necessity of sharing the resources with other states through trade”.⁸²⁰ Whether this principle may be invoked regarding trade agreements that bind state parties is subject to international trade law debate regarding fairness between state parties.⁸²¹

For example, in WTO panel analysis on GATT articles concerning “conservation of exhaustible natural resources”, the principle of permanent sovereignty over natural resources may be tempered by the principle of sustainable development and “general international law”.⁸²²

⁸¹⁵ Julia Grübler, Roman Stöllinger, & Gabriele Tondl, “Wanted! Free Trade Agreements in the Service of Environmental and Climate Protection” (2021) The Vienna Institute for International Economic Studies Research Report No 451 at 44.

⁸¹⁶ Nolte, *supra* note 546 at 2; Mauricio Lorca et al, “Mining indigenous territories: Consensus, tensions, and ambivalences in the Salar de Atacama” (2022) 9:101047 The Extractive Industries and Society 1 at 1.

⁸¹⁷ Grieger, *supra* note 682 at 8; European Commission, “EU-Chile Advanced Framework Agreement”, *supra* note 779 at 2.

⁸¹⁸ European Commission, “EU and Chile strengthen”, *supra* note 730.

⁸¹⁹ Szwedo, *supra* note 651 at 215, citing *China— Measures Related to the Exportation of Various Raw Materials*, panel report, 5 July 2011, WT/ DS394/R, WT/ DS395/R, WT/ DS398/R; *China— Measures Related to the Exportation of Various Raw Materials*, Appellate Body Report, adopted on 22 February 2012, WT/DS394/AB/R, WT/ DS395/AB/R, WT/DS398/AB/R.

⁸²⁰ Szwedo, *supra* note 651 at 209.

⁸²¹ *Ibid* at 215.

⁸²² *Ibid*. The EU joined consultations as a third-party state in 2012, citing “direct legal and economic consequences” related to the original dispute between US and China: *China— Measures Related to the Exportation of Various Raw Materials*, Appellate Body Report, adopted on 22 February 2012, WT/DS394/ AB/ R, WT/ DS395/ AB/R, WT/DS398/AB/ R at paras 7.4, 7.269; See also World Trade Organization, “China — Measures Related to the

As such, states party to economic agreements “are free to decide how much of the resources they want to extract at the present and how much to leave for future generations”.⁸²³

However, no WTO member has “the right to dictate or control the allocation or distribution of [natural resources] to achieve an economic objective”, especially concerning resources already circulating the market.⁸²⁴ A state’s right to regulate their natural resources is voluntarily limited when entering international treaties.⁸²⁵ Adopting a program of conservation and sustainability is “not a right to control the international markets in which products are bought and sold”.⁸²⁶ How the balance of sovereignty, free trade rules, and sustainable development is achieved in practice is left open, despite protection and exploitation of natural resources at least ostensibly being opposing objectives.⁸²⁷ Such a “cryptic norm” put forth by international trade bodies, results in a standard that encourages the “least trade restrictive” decision by domestic lawmakers.⁸²⁸

Commentary on this WTO panel decision notes that restraints on natural resource exports through environmental protection is often a “second-best alternative”, for developing countries lacking domestic regulatory protections.⁸²⁹ Otherwise, relatively powerful importing countries control whether export quotas are allowable, leaving little space to apply environmental protections on trade agreements in practice.⁸³⁰

Exportation of Rare Earths, Tungsten and Molybdenum” (2015) [*China—Rare Earths*], online: WTO <https://www.wto.org/english/tratop_e/dispu_e/cases_e/ds431_e.htm>.

⁸²³ Szwedo, *supra* note 651 at 215-16, citing *China—Rare Earths*, *supra* note 822 at para 7.266.

⁸²⁴ *China—Rare Earths*, *supra* note 822 at para 7.268.

⁸²⁵ Puig, *supra* note 216 at 1265; Sergio Puig, *At the Margins of Globalization: Indigenous Peoples and International Economic Law* (Cambridge University Press, 2021) at 31.

⁸²⁶ *China—Rare Earths*, *supra* note 822 at para 7.268.

⁸²⁷ Szwedo, *supra* note 651 at 216.

⁸²⁸ Puig, “International Indigenous Economic Law”, *supra* note 216 at 1266.

⁸²⁹ Yilin Wang, “The Dissociation of Chinese International Law Scholars from TWAIL” (2022) 3 TWAIL Review 1 at 11.

⁸³⁰ *Ibid.*

The water rights market assumes that those most willing to pay will most optimally determine economic distribution,⁸³¹ a principle similarly applied in international trade law through bilateral agreements. A lack of domestic political participation in regulation, and international trade that preserves economic incentives, is linked to a lack of economic self-determination exercised by Indigenous communities historically dispossessed of land and waters. Subsistence ways of life are threatened by industrial development, where free, prior, and informed consent would allow subsistence as it currently exists to potentially flourish. Short of consent, state-international processes of exploitation due to regulatory capture by industry will continue.

Ugarte calls this process a “standardizing mechanism with great discretion”.⁸³² When implementation of protections occurs, standards falling short of effectiveness are embedded in “the process of regulation-making as a key space where the relationship between the state and Indigenous peoples gets enacted, where the ruling relations that shape planning practice become visible”.⁸³³ Dependent on dispossession of Indigenous lands and waters, re-regulation through privatization intended to open Chile as an export sector for international free trade in natural resources.⁸³⁴

C) Economic Inequality

Having discussed reregulation through FDI/FTAs, I turn to economic inequality, Puig’s third factor for explaining the relationship between international economic law and Indigenous peoples. Disproportionate poverty is a result of dynamic coupling between domestic governance

⁸³¹ Parmo, *supra* note 107 at 100.

⁸³² Ugarte, “Regulating the Duty to Consult”, *supra* note 606 at 230.

⁸³³ *Ibid* at 215.

⁸³⁴ Parmo, *supra* note 107 at 96-97.

reforms and exclusions, turning dispossessed lands into mere resources, and displaced Mapuche and Aymara into cheap labour for large natural resource industries.

The OECD commends Chile's "high level" of "human development", yet also ranks the member state as having the highest level of income inequality.⁸⁴⁰ Discrimination against women and Indigenous peoples are serious concerns, where territorial conflict drives income and wealth inequality.⁸⁴¹ According to a 2006 official national survey, Indigenous peoples in Chile are "the poorest of the poor",⁸⁴² first acknowledged by the *Indigenous Law* drafting commission in 1993.⁸⁴³ More recently in the 2017 national census, Indigenous peoples compose the poorest 40% of Chile's population on average.⁸⁴⁵ Almost 31% of Indigenous peoples live in multidimensional poverty across housing, nutrition, education, and income factors.⁸⁴⁶ This represents a 12% increase from 2006, double the increase relative to non-Indigenous peoples.⁸⁴⁷

The capture of Araucanía and the northern Aymara territories lead to lasting poverty and violence exacerbated by Pinochet's policies. In both situations, the state legally inscribed land expropriation/reduction policies leading to mass rural-urban displacement.⁸⁵⁰ With the end of the dictatorship, the *Indigenous Law* drafting commission relayed that Indigenous peoples wish to maintain their values and culture without "pay[ing] the cost of remaining in extreme poverty".⁸⁵¹ Yet poverty rates for Mapuche and Aymara peoples are higher in rural *and* urban areas, reflected

⁸⁴⁰ Ioannides, *supra* note 543 at 128.

⁸⁴¹ *Ibid.*

⁸⁴² Parmo, *supra* note 107 at 87.

⁸⁴³ Macpherson, *supra* note 41 at 180.

⁸⁴⁵ Gallardo-Peralta, Sánchez-Moreno, & Rodríguez-Rodríguez, *supra* note 69 at 345.

⁸⁴⁶ Tomaselli, *supra* note 498 at 120; See Schmalz et al, *supra* note 354 at 7, 12; See Noella Carrasco Henríquez & Catalina Mendoza Leal, "Restoration as a re-commoning process: Territorial initiative and global conditions in the process of water recovery in the 'Cordillera de Nahuelbuta', Chile" (2021) 17:1 *Ecosystems and People* 556 at 559.

⁸⁴⁷ Parmo, *supra* note 107 at 87; Tomaselli, *supra* note 498 at 120; Ugarte, "Walking and telling", *supra* note 10 at 214.

⁸⁵⁰ Joanna Crow, *Itinerant Ideas: Race, Indigeneity and Cross-Border Intellectual Encounters in Latin America (1900-1950)* (Palgrave Macmillan, 2022) at 72.

⁸⁵¹ Macpherson, *supra* note 41 at 182.

in disproportionally higher levels of violence during the pandemic due to scarcity of resources.⁸⁵²

A study by Fundación Amulén points to a “perfect” correlation in Araucanía between poverty and water scarcity.⁸⁵³

Indigenous peoples currently occupy “the most vulnerable and conflict-ridden” areas of the country.⁸⁵⁴ Araucanía region is Chile’s poorest, double the national average of poverty for Indigenous peoples, and five times the national average of non-Indigenous citizens.⁸⁵⁵ Estimated in 2013, Mapuche population in Bío Bío region experienced poverty on average at 22.3%.⁸⁵⁶ According to the 2017 national census, community members of Contulmo and Purén in Bío Bío experience multidimensional poverty on average at 30% and 40.1% respectively.⁸⁵⁷ Given the majority of residents in rural Indigenous communities are elderly, they are at heightened risk of poor health due to isolation, conflict, loneliness, and destabilization of traditional ways of life.⁸⁵⁸

On average, increased levels of poverty are positively correlated with tree plantation surface area, even in non-ancestral territory.⁸⁵⁹ For example, perpetuation of economic inequality by agribusiness is demonstrated by Petorca’s situation after the avocado boom of 2000-2009. While employment in agriculture rose over 40%, poverty is now 60% higher than the national

⁸⁵² Huencho, *supra* note 611 at 95; See also Claudio A. Agostini, Philip H. Brown, & Andrei C. Roman, “Poverty and Inequality Among Ethnic Groups in Chile” (2009) 38:7 World Development 1036 at 1041.

⁸⁵³ Amulén: La Fundación del Agua, “Pobres de agua: Radiografía del agua rural de Chile/ Water poor: x-ray of rural water in Chile” (2019) at 16, online (pdf): Amulén <http://www.fundacionamulen.cl/wp-content/uploads/2020/07/Informe_Amulen.pdf>.

⁸⁵⁴ Gallardo-Peralta, Sánchez-Moreno, & Rodríguez-Rodríguez, *supra* note 69 at 345.

⁸⁵⁵ Viera-Bravo, “Principios del Mapuche Mongen”, *supra* note 29 at 96; Huencho, *supra* note 611 at 95.

⁸⁵⁶ Cerda, Gallardo-Cobos, & Sánchez-Zamora, *supra* note 70 at 10.

⁸⁵⁷ Henríquez & Leal, at 559.

⁸⁵⁸ Gallardo-Peralta, Sánchez-Moreno, & Rodríguez-Rodríguez, *supra* note 69 at 345.

⁸⁵⁹ Cerda, Gallardo-Cobos, & Sánchez-Zamora, *supra* note 70 at 13; Krister Andersson et al, “More Trees, More Poverty? The Socioeconomic Effects of Tree Plantations in Chile, 2001-2011” (2016) 57 Environmental Management 123 at 131.

level.⁸⁶⁰ In Araucanía, Mapuche salaried in forestry and agribusiness are paid 67% less on average than non-Indigenous workers.⁸⁶¹

Large-scale forestry did not reduce unemployment or increase salaries, but increased poverty on average.⁸⁶² Pollution and declines in water availability, increased prevalence of water conflicts, destruction of habitats, income inequality, urban migration, and an aging population are all key factors explaining the association between rural poverty and tree plantations.⁸⁶³ At the same time, impoverished coastal Mapuche fishers report increasing urban migration from their communities due to pollution and competition from commercial aquaculture and in-land forestry.⁸⁶⁴

Poverty disproportionately affects Aymara herders as well, who make little income from selling wool or animals.⁸⁶⁵ Subsistence life is becoming more difficult, with low fertility rates for vicuña, llamas, and alpacas in high northern elevations.⁸⁶⁶ With limited access to health services, incidence of tuberculosis in Aymara communities is "up to 9 times greater than in the non-Indigenous population".⁸⁶⁷ When asked by Chilean Ministry of Health representatives in Arica city what makes Aymara sick, members from many communities noted arsenic and lead pollution from mining, and urban migration to cities like Arica where many impoverished Aymara die from tuberculosis.⁸⁶⁸ Crucially, one Aymara noted, "I travel with the rural watch to

⁸⁶⁰ Madariaga, Maillet, & Rozas, *supra* note 72 at 11.

⁸⁶¹ Viera-Bravo, "Principios del *Mapuche Mongen*", *supra* note 29 at 96; See also Agostini, Brown, & Roman, *supra* note 852 at 1036.

⁸⁶² Hofflinger et al, *supra* note 286 at 626.

⁸⁶³ Nahuelpan, "In Wallmapu, Colonialism and Capitalism", *supra* note 66 at 299; Padilla, *supra* note 336 at 47; Cerda, Gallardo-Cobos, & Sánchez-Zamora, *supra* note 70 at 13; Andersson et al, *supra* note 859 at 132; Hofflinger et al, *supra* note 286 at 622, 627; See Benra et al, *supra* note 288 at 2.

⁸⁶⁴ González-Poblete, Kaczynski, & Arias, *supra* note 30 at 48, 55; Ebel, Beitzl, & Torre, *supra* note 33 at 568-570.

⁸⁶⁵ Grunwaldt et al, *supra* note 101 at 554.

⁸⁶⁶ *Ibid* at 556.

⁸⁶⁷ *Ibid* at 554; Carreño-Calderón, *supra* note 625 at 74-5.

⁸⁶⁸ Carreño-Calderón, *supra* note 625 at 75-6.

reach more people, because there are also old people in the villages who cannot move...the people are landless, without water. If there is no water, there is no life, there is no health; there is pollution...the earth is angry, the souls are angry, and many misfortunes are happening”.⁸⁶⁹ The disappearance of pastures, llama, and alpaca herds is predicted if ecological problems continue.⁸⁷⁰

The CESCR notes violence, intimidation, and arbitrary detention against Indigenous peoples,⁸⁷¹ particularly over land disputes.⁸⁷² The Chilean government is accused of inappropriately using anti-terrorist legislation against Mapuche to facilitate land transactions during protest.⁸⁷³ The CESCR is also concerned with the cross-cutting issue of discrimination against Indigenous peoples in Chile, with regard to inadequate access to housing and health services.⁸⁷⁴

The Organization of American States (OAS) acknowledges a connection between environmental protection and human rights, where the former precedes the latter.⁸⁷⁵ Despite no textual recognition of this connection in the twin Covenants and Universal Declaration of Human Rights, there is evidence of a “commonly shared understanding” from UN organs: a healthy environment is required to realize most human rights.⁸⁷⁶ The ICESCR’s right to an adequate standard of living under Article 11 includes concomitant rights to food, water, housing, and

⁸⁶⁹ *Ibid* at 76.

⁸⁷⁰ García, Prieto, & Kalazich, *supra* note 82 at 37.

⁸⁷¹ CERD, *Concluding Observations: Chile*, UN Doc A/54/18 (1999) at para 375.

⁸⁷² CESCR, *Concluding Observations: Chile*, UN Doc E/2005/22 (2004) at paras 541, 561.

⁸⁷³ IACHR, Case No 12.576, *Norín Catrimán y ot. Con Chile*, 19 August 2011; UNCHR, *Report of the Special Rapporteur on the situation of human rights and fundamental freedoms of indigenous people, Mr. Rodolfo Stavenhagen, submitted in accordance with Commission resolution 2003/56, Mission to Chile* (Sixtieth session, 2004), UN Doc. E/CN.4/2004/80/Add.3 at paras 29–40.

⁸⁷⁴ CESCR, *Concluding Observations: Chile*, UN Doc E/C.12/1/Add.105 (2004) at para 13.

⁸⁷⁵ Diego Mejía-Lemos, “The Protection of the Environment through International Human Rights Litigation: Taking Stock of Challenges and Opportunities in the Inter-American System (2022) 22 Human Rights Law Review 1 at 2.

⁸⁷⁶ *Ibid* at 6–7.

sanitation.⁸⁷⁷ Article 12's right to the highest attainable standard of health encompasses a "healthy environment".⁸⁷⁸

The right to health under article 12 calls on states to fulfil a special duty to provide "specific measures" that improve access of Indigenous peoples "to health services and care [that] should be culturally appropriate, taking into account traditional preventive care, healing practices and medicines".⁸⁸⁰ CERD highlights the disproportionate impact of extractive activities on Indigenous peoples, negatively affecting their health, education, economy, and way of life.⁸⁸² CERD has called on Chile "to ensure that the protection of Indigenous rights prevails over commercial and economic interests".⁸⁸³

There is an international consensus that water is a human right.⁸⁸⁴ In General Comment No 15, the CESCR states that "[b]efore any action that interferes with an individual's right to water is carried out by the State party, or by any other third party, the relevant authorities must ensure that such actions are performed in a manner warranted by law, compatible with the Covenant, and that comprises: (a) opportunity for genuine consultation with those affected; (b) timely and full disclosure of information on the proposed measures; (c) reasonable notice of proposed actions; (d) legal recourse and remedies for those affected; and (e) legal assistance for

⁸⁷⁷ CESCR, *General Comment No. 15: The Right to Water (Arts. 11 and 12 of the Covenant)* UN Doc E/C.12/2002/11 (2003) at para 3; CESCR, *General Comment No 12: The Right to Adequate Food (article 11)*, UN Doc E/C.12/1999/5 (12 May 1999) at para 13; See also Robert Palmer, Damien Short, & Ted Auch, "The Human Right to Water and Unconventional Energy", in Regina M. Buono et al, eds, *Regulating Water Security in Unconventional Oil and Gas* (Springer International, 2020) 39 at 57; Amanda Cahill, "'The Human Right to Water – A Right of Unique Status': The Legal Status and Normative Content of the Right to Water" (2005) 9:3 The International Journal of Human Rights 389 at 396.

⁸⁷⁸ Meji-Lemos, *supra* note 875 at 7.

⁸⁸⁰ CESCR, *General Comment No 14: The Right to the Highest Attainable Standard of Health (Article 12)*, UN Doc E/C.12/2000/4 (11 August 2000) at para 27.

⁸⁸² *Ibid.*

⁸⁸³ CERD, *Concluding Observations: Chile*, UN Doc CERD/C/CHL/CO/15-18 (2009) at para 23.

⁸⁸⁴ UN General Assembly, *Resolution adopted by the General Assembly on 28 July 2010*, GA Res 64/292, 2010 UN Doc A/RES/64/292 (2010).

obtaining legal remedies”.⁸⁸⁵ This creates an obligation on state parties “to prevent third parties from interfering in any way with the enjoyment of the right to water”.⁸⁸⁶

To understand the connection between domestic markets and international trade in producing economic inequality, we can adopt the concept of virtual water.⁸⁸⁸ As a framework to understand the flow of water across the globe, international trade in natural resources comprises transnational flows of water consumed in production as well.⁸⁸⁹ Water use in production becomes part of international commodity flows, where virtual water disproportionately is found flowing from poor countries in the Global South to rich countries in the Global North. For example, in South-East Asia the “unifying factor” behind rapid increase in land devoted to a particular crop is export-oriented trade.⁸⁹⁰ From a global perspective, the net virtual water import of Chile, South Africa, and Asia are negative in volume, while North America, Europe, and Japan have the highest import volume.⁸⁹¹

Before turning to the applicability of international human rights frameworks, it is necessary to examine how Mapuche and Aymara worldviews and laws have been mobilized within state discourses. Given impoverished conditions exacerbated by state policy, Indigenous movements describing their laws and entailed cosmology point to an alternative mode of regulation and relating to land and waters. However, continued appropriation of Indigenous worldviews, and the attenuation of community norms as lesser than state law, prevent effective implementation. To explain this process in state political discourse, I rely on Pooja Parmar’s

⁸⁸⁵ CESCR, *General Comment No. 15: The Right to Water (Arts. 11 and 12 of the Covenant)* UN Doc E/C.12/2002/11 (2003) at para 56.

⁸⁸⁶ *Ibid* at para 23.

⁸⁸⁸ A.Y. Hoekstra & P. Q. Hung, “Globalization of water resources: international virtual water flows in relation to crop trade” (2003) 15 *Global Environmental Change* 45.

⁸⁸⁹ Caro, *supra* note 311 at 1.

⁸⁹⁰ Derek Hall, “Land grabs, land control, and Southeast Asian crop booms” (2011) 38:4 *The Journal of Peasant Studies* 837 at 840.

⁸⁹¹ Caro, *supra* note 311 at 4.

framework of “loss of meaning”, developed in relation to legal conflicts over water extraction on Indigenous Adivasi land in India.

6) Loss of Meaning through Commodification of Nature: Contested Legitimacy of Aymara and Mapuche Laws

Parmar examines how legal language facilitates commodification of land and water in India, where struggles over water are “inevitably also a struggle over meaning”.⁸⁹³ In her analysis of Adivasi peoples versus Coca-Cola, “neither the language of a right to water, nor that of environmental rights can fully represent what the opposition [to water extraction] meant to those who began the protests and refused to back down for a decade and a half.”⁸⁹⁴ Legal claims for redress must be articulated in the language of a particular legal culture, where “narratives locate and give meaning to law within legal worlds”.⁸⁹⁵

The Adivasi lived and cultivated traditional territory in Kerala until a subsidiary of Coca-Cola dispossessed 32 acres of farmland to build a bottling facility.⁸⁹⁶ Coca-Cola intended to irrigate the land to draw groundwater for beverage production.⁸⁹⁷ While permissible under Indian law, Adivasi legal customs and language were lost in its re-purposing, and in translating Adivasi experiences into claims for redress.⁸⁹⁸

Law, language, and narrative are inseparable in providing necessary conditions for action in a legal world.⁸⁹⁹ Adivasi legal claims as original inhabitants only arise “when experiences of

⁸⁹³ Pooja Parmar, “Water Justice and Indigenous Peoples” in Mariana Valverde et al, eds, *The Routledge Handbook of Law and Society* (Routledge, 2021) 245 at 245.

⁸⁹⁴ *Ibid* at 247.

⁸⁹⁵ Pooja Parmar, *Indigeneity and Legal Pluralism in India: Claims, Histories, Meanings* (Cambridge University Press, 2015) at 10.

⁸⁹⁶ *Ibid* at 2-4.

⁸⁹⁷ Parmar, “Water Justice and Indigenous Peoples”, *supra* note 893 at 245.

⁸⁹⁸ Parmar, “*Indigeneity and Legal Pluralism*”, *supra* note 895 at 11-13.

⁸⁹⁹ *Ibid* at 10.

having been wronged in a particular way in the past take on certain meanings in the face of inequalities and exclusions of the present”.⁹⁰⁰ As such, Adivasi identity now signals “shared experiences of the loss of the forests, the alienation of land, [and] repeated displacements since independence in the name of ‘development projects’”.⁹⁰¹ Longstanding Adivasi protests are not only about water access, but against continued dispossession of land in the face of imposed laws against community norms.⁹⁰²

For the Adivasi, “they share the place *with* water... Water is therefore not a commodity to be consumed but rather a life form alongside others”.⁹⁰³ Elders speak of water in relation to places or uses, but also as living and dead.⁹⁰⁴ Water is not a “single thing meant to meet human needs” but is embedded in relations to others. For example, “company water” was unacceptable as a form of redress in being associated with an “entity” disrupting relations in their territory.⁹⁰⁵

As explained in previous sections on natural resource regulation, the state is only one regulatory actor among many creating legal meaning.⁹⁰⁶ Law expresses values in denoting certain actions as permissible, and others not, by way of state sanction or support.⁹⁰⁷ As such, law and social norms recursively influence each other through changes in societal values.⁹⁰⁸

However, Parmar acknowledges that the experiences of diverse groups with the law do not necessarily create a sharp division between social norms on one hand and law on the other.⁹⁰⁹ In place of dichotomous interactions between “social groups” and the state, or “social norms”

⁹⁰⁰ *Ibid* at 9.

⁹⁰¹ *Ibid*.

⁹⁰² Parmar, “Water Justice and Indigenous Peoples”, *supra* note 893 at 247.

⁹⁰³ *Ibid* at 246.

⁹⁰⁴ *Ibid*.

⁹⁰⁵ *Ibid*.

⁹⁰⁶ Parmar, “Indigeneity and Legal Pluralism”, *supra* note 895 at 9.

⁹⁰⁷ Nadler, *supra* note 164 at 68.

⁹⁰⁸ *Ibid*.

⁹⁰⁹ See Nadler, *supra* note 164 at 71.

and the law, legal pluralism begins with “Histories and other common narratives [that] are as much a part of a normative world as the formal rules and institutions of law”.⁹¹⁰ Legal pluralism does not merely describe whether group behaviour or attitudes express fealty or non-fealty to law’s prescribed norms and entailed values.⁹¹¹ Legal pluralism ties law and social norms directly to possibilities for human action, and interrogates associated consequences across historical experiences.⁹¹²

Human action in a legal world entails that we know legal concepts and their “connections to possible and plausible states of affairs”.⁹¹³ As such, we conceptualize a state of affairs in terms of what it is, what can be done, and what ought to be done.⁹¹⁴ Thus, legal concepts provide possibilities for action that would not be permissible under another normative framework. Contained in concepts are action guiding-values entailing what is, but also what can or ought to be done. Changing an object’s meaning changes its value in relation to action.

State legal concepts viewed Adivasi land and waters through a commercial lens, as a good to be bought and sold. Commitment to following legal concepts permitted forcible displacement of people and environmental damage, disrupting Adivasi’s shared meaning of water as another form of life within the community. Legal inscription displaced the force of their shared “interpretative commitments” that stabilized community conceptions and relations with waters.⁹¹⁵ Legal code imposed a new narrative about what water is, and what can or ought to be done with it; contrary to what was permissible when viewed as a living being.⁹¹⁶ Narrative integrates these actual and imagined situations where we can examine “transformations that

⁹¹⁰ Parmar, “Indigeneity and Legal Pluralism”, *supra* note 895 at 10.

⁹¹¹ See Nadler, *supra* note 164 at 71.

⁹¹² Parmar, “Indigeneity and Legal Pluralism”, *supra* note 895 at 9, footnote 34.

⁹¹³ Cover, *supra* note 2 at 10.

⁹¹⁴ *Ibid.*

⁹¹⁵ Robert Cover, “Nomos and Narrative” (1983-84) 97 Harvard Law Journal 4 at 10.

⁹¹⁶ *Ibid.*

result when a given...state of affairs is made to pass through the force field of a similarly simplified set of norms".⁹¹⁷ Commodification changes normatively held conceptions of objects by imposing a committed view as goods and services over other conceptions.

According to this analytical framework, commodification is an interpretative commitment to the meaning of objects as instrumental in value. This narrow conceptualization of nature, and thus understanding of its value, appropriates nature under the logic of market exchange, producing a greater strain on the ability of ecosystems to regenerate and sustain life.⁹¹⁸ Land and water's utility within a commercial context is emphasized by legal terminology to the detriment of other systems of meaning. As such, the epistemological commitments about what there is in the world, and the resulting interface of human language and action, are tied to the historical and political changes affecting human-nature interactions.

I supplement Parmar's methodology on loss of meaning with Mapuche and Aymara perspectives on the commodification of lands and waters within recent Chilean and Bolivian state political discourses. Almost half of the population in Bolivia self-identifies as Aymara, with ostensible integration of Aymara worldviews into the state constitution.⁹¹⁹ As well, we can look toward mobilization of Mapuche worldviews during Chile's recent failed vote to amend the constitution, and the influence of Aymara movements in Bolivia. I now turn to Mapuche and Aymara legal orders, the struggle over their meaning in relation to the environment, and against commodified perspectives of nature propagated by states.

⁹¹⁷ *Ibid.*

⁹¹⁸ Martin Crook & Damien Short, "Developmentalism and the Genocide-Ecocide Nexus" (2021) 23:2 *Journal of Genocide Research* 162 at 177.

⁹¹⁹ Daniel E. Moreno Morales, "The mysterious case of the disappearing Indians: changes in self-identification as indigenous in the latest inter-census period in Bolivia" (2019) 14:2 *Latin American and Caribbean Ethnic Studies* 151 at 151-53.

A) Critique of Politics as Groundwork for Localized Engagement with Indigenous Laws

Abstracting Indigenous ontologies and epistemologies within state political discourse risks separating understanding from their practical expressions as guides for action.⁹²⁰ In laying the groundwork for a working model of Mapuche law (*Azmapu*), Martín Cárdenas Llancaman points to the need for firstly a critique of politics.⁹²¹ Similarly, for Aymara scholar, Ana Carolina Teixeira Delgado, applying a critique of politics to Aymara worldviews and mobilizations attempts to provide a “non-romanticized analysis” of Aymara law, towards land restitution, jurisdictional control, and reconstitution of the *ayllu*.⁹²²

While worldviews and knowledge systems entailed by Mapuzungun or Aymara language form the structure of thought by Indigenous scholars, one should first interrogate Mapuche and Aymara representations as an object of state ideology, threatened by state appropriation and power dynamics. The case of Aymara peoples in Bolivia is a telling example, in showing perpetuation of extraction under the guise of inclusion, while also influencing abstractions and exclusions of Mapuche law in Chile’s recent attempt at constitutional reform.

Mapuche and Aymara criticism toward state-led procedures of recognition explain state recognition as a strategy to pacify the more fundamental issue of Indigenous laws as guides for action, especially towards restitution of land and jurisdictional control. More specifically, the legitimacy of Indigenous law as regulatory governance is inevitably excluded in state recognition. Land and waters are still under colonial control with no discussed guarantee of restitution, linked to state formation and ongoing commodification of nature.

⁹²⁰ Viera-Bravo, “*Küme mongen*”, *supra* note 56 at 7.

⁹²¹ Martín Llancaman Cárdenas, “Pluralidad de significado en los bienes 106omunes: mirada Mapuche hacia la defensa de las aguas/ Plurality of meaning in the commons: Mapuche insight towards the defence of Waters” (2020) 19:57 Polis: Revista Latinoamericana 37 at 46.

⁹²² Ana Carolina Teixeira Delgado, “Suma Qamaña as a strategy of power: politicizing the Pluriverse” (2018) 13:3 Rev. Carta Inter., Belo Horizonte 236 at 241.

The importance of critique of politics to engage with Indigenous law can be seen in two political movements: 1) Aymara notions of *Suma Qamaña* in the Bolivian constitution, and 2) Mapuche notions of *Küme Mongen* mobilized during the recent constitutional draft hearings. In both cases, the risk of realigning capitalism and the state is always and already at play, in considering continued exclusion and exploitation of Indigenous identity, lands, and waters. In contrast, local engagement with Mapuche and Aymara peoples points to biocentric law as guide for action, through care and reciprocity toward a living environment, rather than as mere natural resource.

B) *Suma Qamaña* in Bolivia's Constitution

With regard to Bolivian legislation's representation of Aymara worldviews, Yaneth Katia Apaza Huanca describes state incorporation of the Aymara concept of *Suma Qamaña* as "pseudo-truth".⁹²³ In contrast to the biocentric worldview of *Suma Qamaña*, Bolivia's legislation provides "no acknowledgement of Nature as a living entity, capable of having rights. Therefore, there is no balance between the rights of people and the rights of Nature".⁹²⁴

As will be discussed regarding *Azmapu*, the Chilean state's constitutional committee incorporated the language of rights of nature, but not Mapuche law, restitution, or jurisdiction.⁹²⁵ Similarly, with regard to Aymara worldviews, the Bolivian state is positioned as a "transforming force of change", without any substantive guarantee of Indigenous jurisdiction over regulation of waters and land.⁹²⁶ Despite Aymara movements in Bolivia towards "reconstitution of the ayllu"

⁹²³ Yaneth Katia Apaza Huanca, "Non-Western Epistemology and the Understanding of the *Pachamama* (Environment) Within the World(s) of the Aymara Identity" (2019) 8:3 International Journal for Crime, Justice, and Social Democracy 6 at 8.

⁹²⁴ *Ibid* at 16.

⁹²⁵ Viera-Bravo, "*Küme mongen*", *supra* note 56 at 14.

⁹²⁶ ACT Delgado, *supra* note 922 at 249, 253.

at the end of the 1980s, and eventual inclusion of *Suma Qamaña* in Bolivia's Constitution, encroachment and mineral extraction on Aymara land continued in practice,⁹²⁷ resembling early conflicts over land during the Nitrate War with Chile and Peru.⁹²⁸

The danger of making one's concern with Indigenous law as firstly theoretical, is mere ontological difference leaves aside "political disputes between the Bolivian government and Indigenous peoples, [including] divergence among Indigenous groups over *Suma Qamaña*/Living Well".⁹²⁹ Huanca notes this risk is inherent to state law, where written meanings of Aymara perspectives may "empty this ancient identity of all its contents".⁹³⁰ Notions of "Indian, Indigenous people, peasant, ethnic group or a nation", are all "abstract identities that anonymize".⁹³¹ Indeed, Chile's *Indigenous Law* as a legally inscribed form of identity recognition provides poor protection of Aymara rights to land and waters, perpetuating conflict with industry water rights.

In turning to previously discussed examples of *ayllus* in northern Chile, state conservation policy and climatological understanding of the northern region exhibits contested meanings of the environment's relationship with humans, in contrast to Aymara lived experience. Chilean climatologists describe the coast as cold and dry, with minimal watercourses and low capacity for agriculture.⁹³² On the other hand, Aymara perceive the coast as temperate or even warm, corresponding to seasonal fluctuations in climate, and migration flows dependent on rain-fed pasture growth. In the windy/resting season, it "neither freezes nor snows" along the coast, while pastures at high-elevation remain frozen during the winter.⁹³³ Further, the state

⁹²⁷ Viera-Bravo, "Principios del *Mapuche Mongen*", *supra* note 29 at 92.

⁹²⁸ See Clark & Foster, *supra* note 121 at 325-26.

⁹²⁹ ACT Delgado, *supra* note 922 at 240.

⁹³⁰ Huanca, *supra* note 923 at 7.

⁹³¹ *Ibid.*

⁹³² Garcia, Prieto, Kalazich, *supra* note 82 at 25.

⁹³³ *Ibid.*

characterizes rain-fed pastures as “low nutritional value” yet are essential to Aymara herding practices and survival.⁹³⁴

Aymara protests to continued extraction of minerals and water, documented pollution and vulnerability to illness, and challenges to hydrological models from practical knowledge of human-water relations across millennia, aim at living in balance with nature as interrelated beings, not as mere resources or anonymized “Indigenous peoples”.

C) Suma Qamaña as Aymara Law

Huanca summarizes three main principles of *Suma Qamaña* as a modern Aymara movement: the reconstitution of territory in the form of *ayllus*, thereby breaking from state-structure; the governance of territory through *ayllus* and their interconnection; and productive economy based on communal work (*mink'a*) organized under the principle of reciprocity (*ayni*).⁹³⁵ The “unity and harmony” of these three parts comprise *Suma Qamaña*.⁹³⁶ In contrast, as a consequence of Chile’s state regulation, the environment’s metabolic cycle of providing humans the means for survival, and receiving what is required for regeneration through care and reciprocity, is fragmented by state-led regulation and governance.⁹³⁷

As a spatial orientation, localized geography and subsistence practices in reciprocity with land and waters is fundamental to Aymara law.⁹³⁸ Notions of “plurinationality” in the Bolivian case only serve to assimilate Aymara under the concept of state,⁹³⁹ despite being conceived as a

⁹³⁴ *Ibid.*

⁹³⁵ Huanca, *supra* note 923 at 11.

⁹³⁶ *Ibid.*

⁹³⁷ Roose & Panez, *supra* note 292 at 2; Panez, Roose, Faúndez, *supra* note 284 at 4; See Raphael Cantillana, “Los estudios del agua en Chile: revision y perspectivas criticas/ Water research in Chile: Review and critical perspectives” (2020) 11:6 Tecnología y ciencias del agua 81 at 100, 106.

⁹³⁸ Huanca, *supra* note 923 at 10.

⁹³⁹ *Ibid* at 8.

new form of Indigenous constitutionalism among Andean countries.⁹⁴⁰ *Suma Qamaña* entails political boundaries that do not conform to state geography, including areas of Chile, Bolivia, and Peru.⁹⁴¹ Rather, the Aymara reference to *Pachamama*, recognizes land and territory as foundation for the possibility of human beings as part of an interconnected whole.⁹⁴² As such, in Aymara culture, “the human being is not the most important part of Nature”.⁹⁴³

Conceptualizations of land and waters, and practical values as guides for action, are expressed by contrasting state and Aymara legal categories. Aymara interaction with their immediate environment conceives of land and waters as more than an instrument for continued extraction and consumption. Rather, a mutual respect of autonomy through reciprocity and care considers the health and stability of a web of relationships: in returning what was taken, or providing time for regeneration.⁹⁴⁴ The human being is decentred, where land and waters are foundational forms of life.⁹⁴⁵ Whether as rain in the *ayllu* of Chiquipata, Bolivia,⁹⁴⁶ or *Kamañchaka* in the *ayllus* of Isluga, Chile,⁹⁴⁷ *carnival* is held in honour of *Pachamama*, and water’s arrival as a living relative.⁹⁴⁸ Under this cosmology, Aymara understand the salt flats and their surface and groundwater flows as part of an interconnected whole.⁹⁴⁹

D) Küme Mongen in Chile’s recent attempt at Constitutional Reform

⁹⁴⁰ Roger Merino, *Socio-Legal Struggles for Indigenous Self-Determination in Latin America: Reimagining the Nation, Reinventing the State* (Routledge, 2021) at 8.

⁹⁴¹ Huanca, *supra* note 923 at 17.

⁹⁴² *Ibid* at 14.

⁹⁴³ *Ibid*.

⁹⁴⁴ Huanca, *supra* note 923 at 14-5.

⁹⁴⁵ *Ibid* at 15.

⁹⁴⁶ *Ibid* at 13.

⁹⁴⁷ Dransart & Perrier, *supra* note 91 at 104.

⁹⁴⁸ Huanca, *supra* note 923 at 14.

⁹⁴⁹ Cornejo P. & Niewöhner, *supra* note 241 at 7.

Consistent with Llanccaman, Viera-Bravo states that Mapuche laws must be positioned within a political field where Mapuche legal language is mobilized towards land restitution, restoration, and reconstitution of *Azmapu*.⁹⁵⁰ She describes notions of *Küme Mongen* in Chile's recent constituent process, mobilized as a metaphor for Mapuche worldviews.⁹⁵¹ Yet as a “political principle”, *Küme Mongen* served as an analogous concept to *Buen Vivir* (“Living Well”) – a Spanish translation of Aymara's *Suma Qamaña*, and *Sumak Kawsay* in Quechua.⁹⁵² One Mapuche constitutional candidate called it a framework developed by their “Andean neighbours”, while another cited the Bolivian Aymara movement as an analogous “scaffold” against oppression.⁹⁵³ However, Mapuche organizations like CAM characterized the constituent process and its attempt to incorporate Mapuche perspectives as a means of appropriating and controlling Mapuche movements, while continuing “occupation of *Wallmapu* by blood and fire”.⁹⁵⁴

Indeed, the state excluded the concept of *Azmapu* as Mapuche law during constitutional draft revisions.⁹⁵⁵ Entailed rights and obligations were rendered implicit in other provisions on the rights of nature and reparation.⁹⁵⁶ Yet the state also excluded the concept of *Itrofil Mongen*, replaced with notions of individual inseparability from society and nature, and harmony between humans and nature.⁹⁵⁷ As such, the drafting commission also excluded Mapuche legal concepts of responsibility and reciprocity as proposed by Indigenous advocates. Instead, revisions included principles of “regeneration, maintenance, and restoration of [nature's] functions and

⁹⁵⁰ Viera-Bravo, “*Küme mongen*”, *supra* note 56 at 9.

⁹⁵¹ *Ibid* at 11.

⁹⁵² Viera-Bravo, “*Küme mongen*”, *supra* note 56 at 10.

⁹⁵³ *Ibid*.

⁹⁵⁴ Viera-Bravo, “*Küme mongen*”, *supra* note 56 at 13.

⁹⁵⁵ *Ibid* at 14.

⁹⁵⁶ *Ibid* at 12.

⁹⁵⁷ *Ibid* at 14.

dynamic equilibrium, which include [respect and protection for] natural cycles, ecosystems and biodiversity.”⁹⁵⁸

The lack of consensus over the inclusion of Mapuche language is reflected in events post-constitutional vote. Notably, upon the arrest and release of the leader of CAM, a far-right senator commented that had the concept of Mapuche law been included, Héctor Llaitul’s release would have happened in minutes.⁹⁵⁹ However, one must consider that the rise of militant forms of self-determination and rights protection since the 1990s is a response to ongoing exclusion and environmental degradation tied to a privatized export-oriented economy, and dependent on the global North’s appetite for natural resources.

Analogous to Aymara perspectives on human-environment relations, a key part to understanding skepticism of state recognition is knowledge of a “metabolic rift” between humans and nature; beginning with the colonial period and exacerbated by Pinochet’s policies still in force today. Representatives of Mapuche organizations place the “worst mistake” regarding *Wallmapu*’s state of biodiversity (*Itrofil Mongen*) in the Pacification of Araucanía.⁹⁶⁰ Mapuche candidate Natifidad Llanquileo explains that “in 10,000 years, the stability of the Indigenous territory was maintained in this equilibrium, but no more than 200 years have passed since the Industrial Revolution began in England, in Europe, to devastate everything. We, who are 5% of the world’s population, have protected 80% of the planet’s biodiversity”.⁹⁶¹

The consequence of “accelerated extraction and production of basic resources” is a “socio-metabolic rupture” in the processes enabling “reproduction of life in Chilean

⁹⁵⁸ *Ibid* at 11.

⁹⁵⁹ *Ibid* at 14.

⁹⁶⁰ *Ibid* at 11.

⁹⁶¹ *Ibid* at 10; Empirically acknowledged by the World Bank: World Bank, *The Role of Indigenous Peoples in Biodiversity Conservation: The Natural but Often Forgotten Partners* (2008) at xii.

territories”.⁹⁶² The exploitation of land and waters to meet demand in the global North ignores nature’s contribution to the metabolic stasis of global ecology, driving a “rampant process of accumulation, carving up nature and increasing [material production] to ecologically unsustainable levels”.⁹⁶³ Nature is artificially conceived in terms of something to be bought and sold rather than a foundational source of well-being for all “ecologically embedded beings”.⁹⁶⁴

Human-ecology relationships and interdependence “must be expanded beyond the interests of particular [human] groups”.⁹⁶⁵ *Azmapu* is a biocentric legal system, where the language used to describe the land and human relations acknowledges the non-human environment as part of a community.⁹⁶⁶ As such, social norms entailed by *Azmapu* eschew anthropocentric understandings of action, where the “community of communication” extends to non-human beings, and the cosmology, language, and narratives underlying this governance structure.⁹⁶⁷

E) *Azmapu* as Mapuche Law

The concept of *Azmapu* can be understood as an ordering of space, as well as a regulatory system of prescribed norms for behaviour.⁹⁶⁸ Understanding the geography and biodiversity of the land is a key part of biocentric law. For example, community “Sentinels” in Carelmapu

⁹⁶² Francisca Quevado, Jorge Rojas Hernández, & Ricardo O. Barra, “Towards a Chilean Water Governance: A Study on the Los Batros and Paicaví Wetland Reservoirs” (2022) 14:2861 *Water* 1 at 11.

⁹⁶³ Martin Crook & Damien Short, “Marx, Lemkin and the ecocide-genocide nexus” (2014) 18:3 *The International Journal of Human Rights* 298 at 304.

⁹⁶⁴ Lauren J. Eichler, “Ecocide is Genocide: Decolonizing the Definition of Genocide” (2020) 14:2 *Genocide Studies and Prevention* 104 at 108.

⁹⁶⁵ Martín Cárdenas Llancaman, “Justicia, democracia y reconocimiento desde el movimiento Mapuche: una discusión de filosofía política/ Justice, democracy and recognition from the Mapuche movement: a discussion of political philosophy” (2019) 33:1 *Persona & Sociedad* 89 at 99.

⁹⁶⁶ *Ibid.*

⁹⁶⁷ *Ibid.*

⁹⁶⁸ Llancaman, “*Azmapu*”, *supra* note 13 at 99.

monitor biodiversity, environmental risks, and human activities, in applying generational knowledge embodied in narratives for proper treatment of local regions.⁹⁶⁹ This entails language and frameworks in Mapuzungun tied to generational practices across millennia, expressing an understanding of human beings as part of a system of care and reciprocity. Fundamentally, nature is treated as a living being among humans, where permission, consent, and care regulate exchange.⁹⁷⁰

Llancaman points to the deficiency of regulatory theory in only understanding common goods as inert resource units.⁹⁷¹ On the other hand, “the importance of waters beyond the resource perspective”, corresponds to a relational meaning of common goods, with human-nature interactions guided by mutual respect.⁹⁷² Mapuche understand the concept of nature as a productive resource, but waters are in practice treated as parts of the greater whole of interconnected beings.⁹⁷³ This is reflected in the words of community members who explain how and why they tend to their lands, and give thanks to the non-human beings that sustain them.

According to José Aylwin Oyarzún,⁹⁷⁴ “The rights and obligations of the members of the *lof*, including their rights to land and resources, were regulated by the *Admapu*”.⁹⁷⁵ This included the right of each family “to develop its gathering or agricultural activities, to a certain family-type territory that passed from generation to generation and was exercised communally”.⁹⁷⁶

⁹⁶⁹ Araos et al, *supra* note 30 at 229.

⁹⁷⁰ Aigo et al, *supra* note 15 at 630; Viera-Bravo, “*Küme mongen*”, *supra* note 56 at 9; Juan Ñanculef-Huaiquinao et al, “Mapuche *Az-Mapu* and Nature’s Contribution to People: Eudemonic Values for Living Well” (2023) 32:3 *Environmental Values* 291 at 297, 299, 302.

⁹⁷¹ Cárdenas, “Pluralidad”, *supra* note 921 at 46.

⁹⁷² *Ibid.*

⁹⁷³ *Ibid.*

⁹⁷⁴ Chilean human rights lawyer and professor who participated in Chile’s *Indigenous Law* drafting commission: See Observatorio Ciudadano: Organización no gubernamental de defensa, promoción y documentación de derechos humanos, “José Aylwin Oyarzún” (n.d.), online: *Observatorio Ciudadano* <<https://observatorio.cl/team/jose-aylwin-oyarzun/>>.

⁹⁷⁵ Aylwin O., *supra* note 39 at 4.

⁹⁷⁶ *Ibid.*

Spatial relations denote types of vegetation, spiritual significance, and the kinds of activities that may be carried out.⁹⁷⁷ The concept of *az*, “alludes to the characteristics of the landscape in a given territory”.⁹⁷⁸ For example, *Lafkenche* territory refers to “the ocean, the native plants, animals, and other species, and the climate that define those spaces”.⁹⁷⁹ A territory’s topography, its caretakers, and rivers, watersheds, and hills, are all integral to the health and stability of the environment, shaping prescribed norms for proper community behaviour.⁹⁸⁰

Rights to lands and resources entail the responsibility to preserve the lands for future generations.⁹⁸¹ While punishment through “isolation or exclusion” of transgressors is one form of conflict resolution, *Azmapu* primarily aims at restorative measures for both parties in preventing future conflicts through conversation and restitution.⁹⁸² As a legal order setting normative standards, conflict resolution rectifies disturbances in community order through sanctions and ongoing dialogue with transgressors.⁹⁸³

The meaning of *Azmapu* (sometimes *Admapu*) in Chilean political discourse is tied to its destabilization as a legal order under Spanish colonialism.⁹⁸⁴ Further, under Pinochet, *Wallmapu* became known as a space to promote export-oriented agribusiness. By impacting water quality and quantity, and vegetation for subsistence and medicine, the resulting abandonment of necessary community agricultural work affected reproduction of *Azmapu* as a legal order.⁹⁸⁵ The “colonial wound” inflicted on Mapuche and Aymara legal orders was “reopened” during the

⁹⁷⁷ Ugarte, “Walking and telling”, *supra* note 10 at 205.

⁹⁷⁸ *Ibid* at 208.

⁹⁷⁹ *Ibid*.

⁹⁸⁰ *Ibid*.

⁹⁸¹ Aylwin O., *supra* note 39 at 4.

⁹⁸² Llancaman, “Azmapu”, *supra* note 13 at 103.

⁹⁸³ *Ibid* at 102.

⁹⁸⁴ Llancaman, “Azmapu”, *supra* note 13 at 99.

⁹⁸⁵ Viera-Bravo, “*Küme mongen*”, *supra* note 56 at 11.

military dictatorship.⁹⁸⁶ During this time, legal conceptions of land and waters as living beings took on the meanings of property.⁹⁸⁷ Under a paradigm of nature as commodity, “the appetite for territorial possession and fragmentation required the confinement and assimilation of Indigenous peoples”.⁹⁸⁸

Azmapu regulates behaviour in setting a standard through the principle of reciprocity.⁹⁸⁹ Care and connection to territory is primary, as opposed to state regulation which treats nature as a commodity to be “possessed, divided, and traded”.⁹⁹⁰ Reciprocity is expressed through practices like mutual aid (*mingako*), consisting of collaborative work in the family, or communal preparation of soil for planting and harvest (*rukan*).⁹⁹¹ Communal sharecropping and animal grazing include the protocol that either may redistribute land for the other when needed, and benefits are divided equally whether in seeds, animals, or fruits of the land (*trafkintu*).⁹⁹² Not returning or sharing what was extracted from the Earth, or disrespecting protocols in sacred spaces are transgressions to the stability and health of relationships governing a *tuwün* (particular territory) and its lineage (*küpalme*).⁹⁹³

7) Applicability of Inter-American and European Court of Human Rights Frameworks

I’ve concluded human-nature interactions are key to representing Mapuche and Aymara governance over lands and waters. This section considers the political utility of international

⁹⁸⁶ *Ibid.*

⁹⁸⁷ Viera-Bravo, “*Küme mongen*”, *supra* note 56 at 12-3.

⁹⁸⁸ Ugarte, “Walking and telling”, *supra* note 10 at 203.

⁹⁸⁹ Viera-Bravo, “Principios del *Mapuche mongen*”, *supra* note 29 at 99.

⁹⁹⁰ Ugarte, “Walking and telling”, *supra* note 10 at 203.

⁹⁹¹ Viera-Bravo, “Principios del *Mapuche mongen*”, *supra* note 29 at 99.

⁹⁹² *Ibid.*

⁹⁹³ Viera-Bravo, “Principios del *Mapuche mongen*”, *supra* note 29 at 100.

human rights law to serve two key goals: 1) the return of jurisdiction in reconstitution of *ayllu* and *lof*, and 2) establishing causation and responsibility for harm by importing states.

Following Llancaman and Huanca, one must firstly keep in mind that International Human Rights frameworks have similar limitations as state-driven Indigenous inclusion efforts. The right to property as a political discourse, and international law more broadly, is foundational to the dispossession of Indigenous lands and waters, especially in settler-colonial states.⁹⁹⁶ Translating this norm into a property right risks losing the meaning of biocentric law.

Yet the explication of “property” as a legal category within international human rights systems must be articulated by Mapuche and Aymara plaintiffs against state discourses that commodify nature as an object of extraction and consumption. Notions of Indigenous development eschew anthropocentric understandings of nature, instead viewing all ecologically embedded beings as part of an interconnected biocentric law. Indeed, “Indigenous climate change studies” views ecological destruction as a form of genocide.⁹⁹⁷ The connection between production, extraction, and consumption of water is made visible through the concept of virtual water, as a tool to establish causation and responsibility for harm by importing EU states.

James Anaya notes the limitations of the ICCPR in protecting the rights of Indigenous peoples. On the other hand, the right to property under the American Convention’s article 21 has provided effective protection in the Inter-American system.⁹⁹⁸ As well, the Inter-American

⁹⁹⁶ Merino, *supra* note 940 at 19-21; See Antony Anghie, “Francisco de Vitoria and the Colonial Origins of International Law” (1996) 5:3 Social & Legal Studies 321; See Brenna Bhandar, *Colonial Lives of Property: Law, Land, and Racial Regimes of Ownership* (Duke University Press, 2018) at 165; See also Carmen G. Gonzalez, “Racial Capitalism and the Anthropocene” in Sumudu A. Atapattu, Carmen G. Gonzalez, & Sara L. Seck, eds, *The Cambridge Handbook of Environmental Justice and Sustainable Development* (Cambridge University Press, 2021) 72 at 77-8.

⁹⁹⁷ Paulo Ilich Bacca, “Indigenizing International Law and Decolonizing the Anthropocene: Genocide by Ecological Means and Indigenous Nationhood in Contemporary Colombia” (2019) 33:2 Maguaré 139 at 142, 161.

⁹⁹⁸ James Anaya, “Indigenous Peoples’ Participatory Rights in Relation to Decisions about Natural Resource Extraction: The More Fundamental Issue of what Rights Indigenous Peoples have in Lands and Resources” (2005) 22:1 Arizona Journal of International & Comparative Law 7 at 12.

system provides a limited degree of deference to states under its enforcement mandate, should a state not comply with recommendations.⁹⁹⁹ Chile has arguably violated the right of Mapuche and Aymara peoples' right to property with respect to water as natural resource.

At the same time, establishing violation of the right to property under the American Convention may not effectively provide restitution of land, or prevention of cumulative detrimental effects from surrounding industrial development. In considering Chile's implementation gap for effective remedy in *Chusmiza*, a claim against major importing states targets consumption as the basis of responsibility, rather than production. As such, establishing violation of the right to life in the European Court of Human Rights may provide relief.

Overextraction affecting Indigenous rights to water can be shown as a form of transboundary harm to international watercourses, traceable to states with high import volume of virtual water. The facilitation of overextraction through FTAs may be a stronger claim in considering that the ICJ's general principles of international environmental law have been applied in the European Court.

Both systems require that domestic remedies be exhausted up to the highest court, where the Mapuche and Aymara may have to file domestic suit first.¹⁰⁰⁰ However, the Inter-American Commission's statement on admissibility in 2009 allows an exception in cases of immense financial and human costs, or lack of an effective mechanism for seeking relief.¹⁰⁰¹ Proof of ongoing implementation problems, state facilitation of overextraction, use of anti-terrorism laws

⁹⁹⁹ Jorge Contesse, "Contestation and Deference in the Inter-American Human Rights System" (2016) 79 Law & Contemp. Probs 123 at 124.

¹⁰⁰⁰ Inter-American Commission of Human Rights, "Digest of the IACHR on its Admissibility and Competence Criteria" (2020) Working Paper No OEA/Ser.L/V/II.175 at 31-2; European Court of Human Rights, Press Release, "Q&A – Exhaustion of Domestic Remedies" (January 2023), online (pdf): https://www.echr.coe.int/d/press_q_a_exhaustion_domestic_remedies_eng?p_l_back_url=%2Fsearch%3Fq%3D%2522exhaustion%2Bof%2Bdomestic%2Bremedies%2522.

¹⁰⁰¹ Admissibility: Hul'qumi'num Treaty Group — Canada (2009) Inter-Am Comm HR, No 105/09, online: www.sfu.ca/~palys/HulQumiNumPetitiontoIACHR.pdf at para 37.

against protestors, and denial of basic rights to food, water, and housing may be sufficient to meet this exception.

A) Inter-American System and Remedies for Violation of the Right to Property

Under the right to property, two remedies are explored: FPIC (interpreted in jurisprudence as equivalent to the right to development) and Restitution of Land. Both work towards the practical goal of reconstitution of the *lof* and *ayllu*.

FPIC may provide effective control and protection against further industry encroachment on land, preventing extraction. However, the reconstitution of the *ayllu* and *lof* also requires restitution of land and waters dispossessed by the state. Chile's inability to consider the interconnections of territory and water flows through regulatory processes results in cumulative damage to the functioning of neighbouring ecosystems. As such, the continuation of development in neighbouring lands affects territories currently under Indigenous control.

A developing issue in the jurisprudence of the court is when it may be appropriate to order full restitution of land. The main issue with restitution as a remedy beyond FPIC is conflict with private landowners, especially in Chile's privatized natural resource sectors, and state concern over clear and distinct property rights. As will be shown, the court now distinguishes between situations where Indigenous title over land is undetermined and requires demarcation versus situations where the state or private parties have previously recognized Indigenous territory. In the latter case, if agreements were previously reached between the state, private owners, and Indigenous peoples, the court will order the removal of all encumbrances to Indigenous title to land (referred to in Spanish decisions as "saneamiento"). In the former,

demarcation and titling requires the state to balance the rights of private owners and Indigenous communities in determining whether removal is possible and necessary.

i) FPIC

Article 21(1) of the American Convention on Human Rights guarantees a “right to the use and enjoyment of...property” and any deprivation of property in the interest of society must be according to law and justly compensated.¹⁰⁰² The collective right to property includes natural resources, where access is a necessary corollary of the right to land in ensuring physical and cultural survival.¹⁰⁰³ States must consult with Indigenous peoples about large-scale development projects affecting their land.¹⁰⁰⁴

In *Awas Tingni Community v Nicaragua*, the court states the basis of Indigenous communal property holding is “the close ties of indigenous people with the land [which] must be recognized and understood as the fundamental basis of their cultures, their spiritual life, their integrity, and their economic survival. For indigenous communities, relations to the land are not merely a matter of possession and production but a material and spiritual element which they must fully enjoy, even to preserve their cultural legacy and transmit it to future generations”.¹⁰⁰⁵ The first special rapporteur on the rights Indigenous peoples, Rodolfo Stavenhagen offered expert testimony to explain, “This linkage of humans with the territory is not necessarily written down, it is something lived on a daily basis”.¹⁰⁰⁶

Under Article 21 of the American Convention, Mapuche and Aymara could argue that state regulatory bodies facilitating mineral extraction, tree plantations, salmon aquaculture, and

¹⁰⁰² American Convention, Article 21(1).

¹⁰⁰³ *Saramaka v Suriname (Preliminary Objections, Merits, Reparations and Costs)* (2007) IACtHR (Ser C) No 172 (28 November 2007) at para 93 [*Saramaka*].

¹⁰⁰⁴ *Ibid* at para 134.

¹⁰⁰⁵ *The Mayagna (Sumo) Awas Tingni Community v. Nicaragua (Merits, Reparations, and Costs)* (2001) IACtHR (Ser C) No 79 (31 August 2001) at para 149.

¹⁰⁰⁶ *Ibid* at para 83.

overextraction/pollution of water sever communal ties to water and the land. Irrigation infrastructure, and water-intensive mining and agriculture, impairs their ability to continue traditional subsistence agriculture, based on a communal relationship with each other and the land, regulated by reciprocal relations, regeneration, and mutual respect with waters and lands as living beings.

In *Yakye Axa Indigenous Community v Paraguay*, ILO Convention 169's article 13 reinforces the safeguarding of "collective aspects of cultural ties to the land" under Article 21.¹⁰⁰⁷ The right to property encompasses "all moveables and immoveables, corporeal and incorporeal elements and any other intangible object capable of having value".¹⁰⁰⁸ For Aymara and Mapuche, the basic unit of social organization, the *ayllu* and *lof* is severed, where water is appropriated as a part of international value chains as a commodity.

This disruption of close ties to the land and water is also a result of discriminatory policy facilitated by large-scale agribusiness, mining, and aquaculture, who shape government and policymaking for monetary benefit. Close collusion between government and private industry since enactment of the *Water Code* prevents continued attempts at reform. Even the *Indigenous Law*, originally drafted to ensure protection of Indigenous peoples' rights, only acts to limit their ability to obtain rights to water. The state actively discriminates through legal sanction and criminalizes protests through use of force.

The right to property includes the right to non-discrimination under Article 1(1) of the American Convention, recognizing that "the right to cultural identity is an ingredient and crosscutting means of interpretation to understand, respect and guarantee" Indigenous peoples'

¹⁰⁰⁷ *Yakye Axa Indigenous Community v Paraguay (Merits, Reparations and Costs)* (2005) IACtHR (Ser C) No 125 (17 June 2005) at paras 136-137.

¹⁰⁰⁸ *Ibid.*

human rights.¹⁰⁰⁹ The court references ILO Convention 169 and the United Nations Declaration on the Rights of Indigenous Peoples, emphasizing that land rights effect other basic rights like cultural identity and survival.¹⁰¹⁰ Under article 33 of UNDRIP, “Indigenous peoples have the right to determine their own identity or membership in accordance with their customs and traditions”.¹⁰¹¹ Under articles 3-5, 18-20, 23, 32, and 33, Indigenous peoples have the right to “freely determine their political situation, to freely pursue their economic, social, and cultural development, to participate in the adoption of decisions that affect them.”¹⁰¹²

In *Saramaka*, the court invokes common article 1 of the ICCPR and ICESCR, such that the right to self-determination is connected to the right to property, essentially creating the right to self-determined development.¹⁰¹³ Longstanding use, occupation, and access to natural resources ensures their physical and cultural survival as a community. The court draws on article 32 of UNDRIP to interpret the duty to consult and the right to free, prior, and informed consent.¹⁰¹⁴ Article 32 of UNDRIP states that “Indigenous peoples have the right to determine and develop priorities and strategies for the development or use of their lands or territories and other resources.”¹⁰¹⁵ States must consult Indigenous peoples about development projects

¹⁰⁰⁹ *Kichwa Indigenous People of Sarayaku v Ecuador (Merits and Reparations)* (2012) IACtHR (Ser C) No 245 (27 June 2012) at para 213.

¹⁰¹⁰ *Ibid* at paras 215, 217.

¹⁰¹¹ UNDRIP, article 33.

¹⁰¹² *Kichwa*, *supra* note 1009 at para 217, footnote 288.

¹⁰¹³ *Saramaka*, *supra* note 1003 at paras 95-96; The court’s language in *Saramaka* describes the collective right of a people to “freely dispose of their wealth and natural resources” which is taken from the African Charter’s article 21 right to natural resources, as interpreted in *Social and Economic Action Rights Centre (SERAC) v Nigeria* (2001). In *Endorois Welfare Council v Kenya* (2010), the African Commission reasoned by analogy to *Saramaka* in affirming this interpretation: at para 257. The African Charter’s article 22 right to development emphasizes Indigenous peoples’ “liberty of action”, and that choice is integral to well-being and survival: at para 128. Development encompasses both a means and an end with regard to natural resources: *Endorois* at para 277; See also Jeremie Gilbert & Corinne Lennox, “Towards New Development Paradigms: The United Nations Declaration on the Rights of Indigenous Peoples as a tool to support self-determined development” (2019) 23:1,2 *The International Journal of Human Rights* 104.

¹⁰¹⁴ *Saramaka*, *supra* note 1003 at para 131.

¹⁰¹⁵ UNDRIP, art 32(1).

affecting their land and natural resources, and large-scale development projects with major impacts require the higher standard of free, prior, and informed consent.¹⁰¹⁶

ii) Restitution of Land

In *Yakye Axa* and *Sawhoyamaxa*, both decisions ordered return of ancestral territories given insufficient state justification for non-enforcement of Indigenous rights to land.¹⁰¹⁷ In *Sawhoyamaxa* and *Yakye Axa*, the court addresses Paraguay's argument that protection of Indigenous rights is not possible when claimed traditional lands are privately held.¹⁰¹⁸ As such, if there is conflict between private owners and Indigenous rights, the court must assess the "legality, necessity, proportionality, and fulfillment of a lawful purpose in a democratic society" in determining whether restrictions on Indigenous rights are justified.¹⁰¹⁹ If restrictions on Indigenous rights are unjustified, Indigenous rights to property do not automatically prevail over private rights. The court cannot decide disputes between private parties.¹⁰²⁰ The court can only determine whether Indigenous rights have been violated because of the state's failure to ensure those rights are protected.¹⁰²¹

The issue of state demarcations of Indigenous territory as functional habitat was dealt with in *Garifuna Community of Triunfo de la Cruz*.¹⁰²² The community alleged that titles granted by the state do not cover their functional habitat. They also noted that non-Garifuna

¹⁰¹⁶ *Saramaka*, *supra* note 1003 at para 134.

¹⁰¹⁷ Thomas M. Antkowiak, "A Dark Side of Virtue: The Inter-American Court and Reparations for Indigenous Peoples" (2014) 25:1 Duke J Comp & Intl L 18 at 33.

¹⁰¹⁸ *Sawhoyamaxa Indigenous Cmty.*, IACtHR. (ser. C) No. 146 at para 138; *Yakye Axa*, *supra* note 1007 at paras 148-49.

¹⁰¹⁹ *Ibid* at para 138; *Yakye Axa*, *supra* note 1007 at paras 145-46.

¹⁰²⁰ *Sawhoyamaxa*, *supra* note 1018 at para 136.

¹⁰²¹ *Ibid* at para 135.

¹⁰²² *Garifuna Community of 'Triunfo de la Cruz' and Its Members v Honduras* (Merits), IACHR Report No 76/12, Case 12.548 (7 November 2012) at para 19, online: SUMMA/The IAHRs online <<https://summa.cejil.org/en/document/93tsqwxyl6jo04382svh1tt9?page=4>>.

encroachment continues in spite of these titles.¹⁰²³ In finding violation of the right to property, the court orders land restitution and granting of full ownership of lands to be demarcated in consultation with the community.¹⁰²⁴ Again, the court orders the state to assess whether relocating third parties through expropriation of lands is possible and necessary to protect the right to property.¹⁰²⁵ If not possible, the state must grant collective property title over alternative lands in consultation with the community.¹⁰²⁶

Xákmok Kásek also dealt with private ownership of lands, where the Court ordered return within three years, or else fines would be incurred on Paraguay.¹⁰²⁷ Regarding land restitution, the court states: “Once the Community’s traditional territory is fully identified...if it is owned by private entities, whether natural or legal persons, the State, through its competent authorities, must decide whether it is possible to expropriate the land for the indigenous peoples. To decide this question, the State authorities must follow the criteria established in this judgment [citing *Yakye Axa* and *Sawhoyamaya*]...taking very much into account the special relationship that the indigenous have with their lands for the preservation of their culture and their survival. At no time should the decision of the domestic authorities be based exclusively on the fact that the land is owned privately”.¹⁰²⁸ Given the court’s inability to expropriate private lands, a voluntary agreement between the parties is required.¹⁰²⁹

¹⁰²³ *Ibid* at para 19.

¹⁰²⁴ *Case of the Community Garifuna Triunfo de la Cruz and its members v. Honduras* (Merits, Reparations and Costs), IACtHR (October 8, 2015) at paras 259-60.

¹⁰²⁵ *Ibid* at para 261.

¹⁰²⁶ *Ibid* at paras 262-63.

¹⁰²⁷ Antkowiak, *supra* note 2 at 53; *Xákmok Kásek Indigenous Cmty. V. Paraguay*, Merits, Reparations and Costs, Judgment, IACtHR. (ser. C) No. 214, (August 24, 2010) at para 288.

¹⁰²⁸ *Xákmok Kásek*, *supra* note 1027 at para 284.

¹⁰²⁹ *Ibid* at paras 144-45, 148-49.

In *Xucuru*, the court further developed its jurisprudence regarding the right to property in conflict with private landowners.¹⁰³⁰ Over the course of 30+ years, legal uncertainty over territory exposed the community to violence and encroachment on territory by non-Indigenous occupants despite previous recognition of territory.¹⁰³¹ The court affirms Article 21's "corpus iuris", entailing interpretive guidance through ILO Convention 169, UNDRIP, domestic law, and other international instruments.¹⁰³² The court finds violation of the right to property, stating that the right to collective property is dependent on saneamiento of the territory.¹⁰³³ The state duty of saneamiento refers to "a process entrusted to the State to remove any interference in the territory, enabling total use and enjoyment of the lands".¹⁰³⁴

Notably, the court distinguishes the duty of saneamiento from conflict with private owners. The former duty arises when property rights were previously defined but disrupted, as the case was here.¹⁰³⁵ On the other hand, conflict with private owners must be resolved on a case-by-case basis, where the state assesses the possibility and necessity of restricting private rights to ensure the survival of Indigenous communities.¹⁰³⁶ The court considers the situation as a matter of saneamiento and not conflict between private owners and traditional territory.¹⁰³⁷ As such, regarding private property within the territory, the court orders the state to free the traditional territory of any encumbrances to ensure protection of property.¹⁰³⁸

¹⁰³⁰ Gabriela Cristina Braga Navarro, "The Judgment of the Case Xucuru People v. Brazil: Inter-American Court of Human Rights between Consolidation and Setbacks" (2019) 16:2 Braz J Intl L 203 at 203; *Case of the Xucuru Indigenous People and its members v. Brazil* (Preliminary Objections, Merits, Reparations and Costs) IACtHR (February 5, 2017).

¹⁰³¹ Navarro, *supra* note 1030 at 208, 210.

¹⁰³² *Ibid* at 210.

¹⁰³³ *Xucuru*, *supra* note 1030 at para 124.

¹⁰³⁴ Navarro, *supra* note 1030 at 207; *Xucuru*, *supra* note 1030 at para 126; *Garifuna Community of Punta Piedra and Its Members v Honduras (Merits)*, IACHR Report No 30/13, Case 12.761 (21 March 2013), at para 181, online: *Organization of American States* <<https://www.oas.org/en/iachr/decisions/court/12761FondoEn.pdf>>.

¹⁰³⁵ *Xucuru*, *supra* note 1030 at para 126-27.

¹⁰³⁶ *Ibid* at paras 125-26.

¹⁰³⁷ Navarro, *supra* note 1030 at 211-12.

¹⁰³⁸ *Xucuru*, *supra* note 1030 at para 193.

In *Lhaka Honhat*, the court finds violation of the right to property where the state granted concessions to oil and gas companies and began public works on traditional territory.¹⁰³⁹ Despite granting of title and actions to control logging activities, non-Indigenous peoples began cattle ranching on their territory.¹⁰⁴⁰ Similar to *Xucuru*, the court orders the relocation of all non-Indigenous peoples in the territory, recognizing previous agreements between the Indigenous community, non-Indigenous peoples, and the state.¹⁰⁴¹ The court orders the state to avoid compulsory evictions and to make mediation or arbitration available to facilitate relocation, in line with saneamiento.¹⁰⁴²

In consideration of past treaties signed with the Mapuche, and the forcible taking of Aymara territory located in Peru and Bolivia, there may be evidence of previous agreements and disruption of recognized territory, entailing Indigenous title and rights to property. Recall that the Spanish Crown signed treaties with Mapuche and demarcated territory as late as the 19th century, with land demarcation continuing post-Pinochet with the *Indigenous Law*. Recognition of territory dispossessed by Pinochet, and state processes of restitution of land pre- and post-dictatorship, may entail the right to saneamiento, and the clearing of occupied territory of any encumbrance to Indigenous rights to property. Further, Aymara and Mapuche lands demarcated and recognized under the *Indigenous law* do not correspond to their functional habitat. Consideration of functional territory as an interconnected whole, and the cumulative effects of surrounding development may at very least reinforce the right to FPIC.

¹⁰³⁹ *Indigenous Communities of the Lhaka Honhat (Our Land) Association v Argentina* (Merits, Reparations and Costs) (2020) IACtHR (Ser C) No 400 (6 February 2020) at para 1, online: *Inter-American Court of Human Rights* <https://www.corteidh.or.cr/docs/casos/articulos/seriec_400_ing.pdf>.

¹⁰⁴⁰ *Ibid* at paras 149, 255.

¹⁰⁴¹ *Ibid* at paras 329-30.

¹⁰⁴² *Ibid* at para 329.

However, Chile's implementation gap makes this approach far weaker, especially considering that FPIC continues to be violated by the state. A claim in the European Court of Justice may provide an alternative given lack of implementation of protection and recognition of Indigenous territory.

Broader economic effects impacting Mapuche and Aymara rights to water may include FTAs signed between Chile and EU countries. In supporting large-scale plantation and mining projects requiring major irrigation infrastructure, as well as pollution of coastal ecosystems, FTAs connect domestic private water rights to the international market's value chain. The following section explores redress in describing an international watercourse through the concept of virtual water.

B) European Court of Human Rights and EU violation of the Right to Life

Virtual water refers to water extracted in production, that crosses transnational boundaries as part of global commodity trade.¹⁰⁴³ a claim for violation of the right to life may be proven in the European Court of Human Rights. Economic treaties like the ECAA, and its modernized AFA, facilitate overextraction of water that constitutes harm to the environment, and infringement of the right to life. Given that water is treated as a commodity in Chile, tracking its increased flows to Europe amidst increasing consumption may implicate the EU in knowingly causing harm to the environment and endangering the lives of Mapuche and Aymara peoples. Considering water in its virtual form also reveals the invisibilization of water in production, as part of an interconnected biocentric law that crosses international boundaries in the visible commodity form.

¹⁰⁴³ Boelens & Vos, *supra* note 180 at 17; Caro et al, *supra* note 311 at 1.

Article 1 of the European Convention of Human Rights provides that state parties shall “secure to everyone within their jurisdiction the rights and freedoms defined in Section I of this Convention”, including the right to life under Article 2, the associated rights of physical integrity under article 3, or respect for the home and private life under article 8.¹⁰⁴⁴ David Boyle notes that in the case of *Fadeyva*, responsibility in environmental cases “may arise from a failure to regulate private industry”, such that states have a duty of due diligence to ensure human rights are protected.¹⁰⁴⁵ In the case of *Öneryildiz*, the ECtHR recognized that states have a positive obligation, “to take all appropriate steps to safeguard life for the purposes of Article 2”, including the implementation of legislative and regulatory frameworks that effectively deter threats to the right to life.¹⁰⁴⁶

As noted in the *Manual on Human Rights and the Environment*, the Council of Europe considers the concept of jurisdiction to encompass not just national territory but acts of state parties that produce effects outside their territories.¹⁰⁴⁷ In the case of *Loizidou v Turkey*, the court found that to show state responsibility for extraterritorial acts that violate rights, the state must exercise effective control over a foreign territory, or authority and control over an individual outside its territory.¹⁰⁴⁸

While jurisprudence has applied *Loizidou* in further cases, the facts of these cases have mostly dealt with transboundary military violence or air pollution.¹⁰⁴⁹ Further, the European

¹⁰⁴⁴ European Convention on Human Rights.

¹⁰⁴⁵ *Fadeyeva v. Russia*, 45 EHRR (2007) 10 at para 89.

¹⁰⁴⁶ *Öneryildiz v. Turkey*, 41 EHRR (2005) 20.

¹⁰⁴⁷ Council of Europe, *Manual on Human Rights and the Environment* (Council of Europe, 2006 (1st ed), 2012 (2nd ed) at 113.

¹⁰⁴⁸ *Loizidou v. Turkey (merits)*, ECtHR, judgment of 18 December 1996 at para 52. See also *Cyprus v. Turkey (merits)*, EHRR judgment of 10 May 2001 at paras 76-7, 81, 91; *Al-Skeini and Others v. the United Kingdom*, ECtHR (2011) at para 131 [*Al-Skeini*]; *Issa and Others v. Turkey*, EHRR judgment of 16 November 2004 at paras 68, 71; *Chiragov and Others v. Armenia* [2015] at paras 169-71, 186.

¹⁰⁴⁹ Council of Europe, *supra* note 1047 at 114.

Court has only ever dealt with cases of transboundary harm where both the act causing violation of human rights and the violation itself occurred extra-territorially. It has not dealt with a case where the act causing harm occurs intra-territorially, like signing an FTA, which produces effects elsewhere.¹⁰⁵⁰ However, states hold obligations to the rights of Indigenous peoples as enumerated in ILO Convention 169 and UNDRIP, so long as effective control is established extra-territorially as in *Loizidou*.

i) Establishing Effective Control as necessary condition for EU Responsibility

The tracking of transnational water flows in connection to crop and mineral exports can be used to assess relative control over use of land.¹⁰⁵¹ In the case of crop booms and their causal connection to increased crop imports, pre-boom governance structures may be challenged and changed in a “play for control” over land.¹⁰⁵² Following Pinochet’s export-oriented land reforms, FTAs are linked to corresponding import of goods, facilitated by a privatized domestic economy heavily reliant on commodity exports like minerals, timber, fruit, and fish. The necessity of an importing state, and knowledge of effects on the environment and human rights, can be used to infer causation linked to effective control.

Without an importing country, free trade treaties serve no purpose. Both state parties are jointly sufficient and necessary for an agreement. Further, European countries like the Netherlands, Denmark, and Germany understand avocado consumption in the EU exacerbates water scarcity in Chile. There is growing international awareness of Chile’s water crisis and the exacerbating effect of international trade. In 2018, the German Green Party led a campaign to

¹⁰⁵⁰ Bojana Cuckovic, “State Responsibility for Human Right Violations in Cases of Transboundary Environmental Harm: a new Concept of Extraterritoriality regarding the Application of International Human Rights Treaties?” (2020) 89 Collection Papers Fac L Nis 15 at 18.

¹⁰⁵¹ Hall, *supra* note 890 at 839.

¹⁰⁵² *Ibid.*

raise visibility of the problem, intending to overcome the strong influence over media by Chilean agribusiness. The Danish NGO, Danwatch, reported in 2017 that avocado exports and European consumption were causing denial of the right to water in Chile. Agribusiness attempted to silence the report, presenting studies to counter the claim of violation of the human right to water.¹⁰⁵³ Yet fervor against water crisis responsibility may paradoxically draw further attention to the connection between natural resource extraction, water used in production, transnational capital flows, and lack of domestic regulatory protections for Indigenous rights to water.

With growing knowledge of stress placed on water-scarce regions by over-production of Chilean natural resources, the EU's overconsumption may establish causation by way of international financial flows facilitated through free trade and foreign investment in the ECAA, and renewal as the AFA. The rapid increase in water rights allocation, natural resource exports, and international flows of virtual water to the EU, may establish responsibility along with the state of Chile.

The court in *Loizidou* states that determining whether a state is exercising extra-territorial control is fact specific.¹⁰⁵⁴ The failure to regulate industry within EU states may trigger state responsibility as in *Fadeyva*, such that states have a positive duty to take appropriate steps to avoid violations of the right to life as in *Öneryildiz*. While harm based on virtual transboundary watercourses would be unprecedented, establishing causation through control may be supplemented with judicial application of general principles of international environmental law to fill jurisprudential gaps on transboundary harm across international watercourses.

¹⁰⁵³ Madariaga, Maillet, & Rozas, *supra* note 72 at 15.

¹⁰⁵⁴ *Al-Skeini*, *supra* note 1048 at para 132.

ii) Establishing Causation of Harm through Virtual Water and General Principles of International Environmental Law

As soft law instruments, the Stockholm Declaration's Principle 21 and the Rio Declaration's Principle 2 inscribe that a state exploiting resources, must “ensure that activities within their jurisdiction or control do not cause damage to the environment of other States or of areas beyond the limits of national jurisdiction”.¹⁰⁵⁵ Cases at the ICJ operationalize these principles as standards in transboundary harm cases.

In the ICJ cases of *Trail Smelter* and *Pulp Mills*, the duty of due diligence and its corollary principle of harm prevention, is interpreted as an obligation of best efforts to avoid damaging other territories.¹⁰⁵⁶ The so-called “no-harm rule” mirrors recognition of this principle in *Fadeyva*. As developed in the case of *Costa Rica v Nicaragua*, the standard required to demonstrate breach of the obligation is “significant harm”.¹⁰⁵⁷ As confirmed in the ICJ advisory opinion on the *Legality of the Threat or Use of Nuclear Weapons*, activities within a state’s jurisdiction and control should “respect” the environment of other states.¹⁰⁵⁸ The principle of prevention entails that a state cannot knowingly cause significant damage to another state under its control or jurisdiction.¹⁰⁵⁹

In *Gabcikovo-Nagymaros*, the court relied on the 1997 UN Convention on the Law of Non-Navigational Uses of International Watercourses to operationalize the principle of

¹⁰⁵⁵ *Stockholm Declaration on the Human Environment* UN Doc A/CONF.48/14/Rev.1 (1973), (1972), 11 ILM 1416; *Rio Declaration on Environment and Development* UN Doc A/CONF.151/5/Rev.1, (1992), 31 ILM 874 (emphasis added).

¹⁰⁵⁶ *Trail Smelter Arbitration (United States v Canada)* (1931-1941), 3 RIAA 190; *Case Concerning Pulp Mills on the River Uruguay (Argentina v Uruguay)*, [2010] ICJ Rep 14 at para 101.

¹⁰⁵⁷ *(Costa Rica v Nicaragua) and Construction of a Road in Costa Rica Along the San Juan River (Nicaragua v Costa Rica)* [2015] ICJ Rep 665 at para 118 [Costa Rica].

¹⁰⁵⁸ *Legality of the Threat or Use of Nuclear Weapons Advisory Opinion* [1996] ICJ Rep 226.

¹⁰⁵⁹ *Costa Rica*, *supra* note 1057 at para 104.

sustainable development.¹⁰⁶⁰ The need to reconcile economic development and protection of the environment invokes the principle of prevention and due diligence, where Articles 7 and 12 of the Convention imply that determination of equitable and reasonable use of international watercourses requires a balancing of interests, including rate of consumption and return flows.¹⁰⁶¹

The productive use of water required for international trade in timber, fruit, fish, and minerals may be interpreted as water extraction under Article 1(1) of the UN Watercourses Convention. Article 1's language "watercourses and their waters" identifies water channel flows and the waters contained therein as subject to its provisions.¹⁰⁶² As such, virtual water flows may encompass an international watercourse. If the court assesses control over territory through the lens of virtual water, economic treaties that knowingly facilitate overextraction of natural resources can be viewed as harm.

In line with the fact-specific nature of adjudication, the right to life and home must be supplemented with conceptions from the Indigenous perspective, particularly the importance of maintaining connections to land and water, through soft law instruments like ILO Convention 169 and UNDRIP's right to self-determined development.¹⁰⁶³

ILO Convention 169 offers protection of Indigenous peoples' culture and livelihood. Article 5(a) of ILO Convention 169 states that "the social, cultural, religious and spiritual values and practices of [Indigenous] peoples shall be recognized and protected" and that "policies shall

¹⁰⁶⁰ *Gabčíkovo-Nagymaros Project (Hungary v Slovakia)* [1997] ICJ Rep 7 [*Gabčíkovo-Nagymaros*]; See Makane Moïse Mbengue & Brian McGarry, "General Principles of International Environmental Law in the Case Law of International Courts and Tribunals" in Andenas, Mads, Malgosia Fitzmaurice, Attila Tanzi, Jan Wouters, eds, *General Principles and the Coherence of International Law* (Leiden, The Netherlands: Koninklijke Brill NV, 2019) 408 at 411.

¹⁰⁶¹ *Gabčíkovo-Nagymaros*, *supra* note 1060 at para 140; See Mbengue, Moïse & McGarry, *supra* note 1060 at 411.

¹⁰⁶² Alistair Rieu-Clarke, Ruby Moynihan, & Bjørn-Oliver Magsig, *UN Watercourses Convention: User's Guide* (UK: The Authors, 2012) at 68.

¹⁰⁶³ Gilbert & Lennox, *supra* note 1013 at 104.

be adopted, with the participation...and cooperation of the peoples affected”. Further, article 13(1) states that governments “shall respect the special importance for the cultures and spiritual values of the peoples concerned of their relationship with the lands or territories, or both as applicable, which they occupy or otherwise use, and in particular the collective aspects of this relationship”.

In this way, water can be understood as a commodity, but in its negative impact on competing conceptions of water as a source of cultural identity and livelihood. Mapuche and Aymara waters and lands are viewed as interconnected entities, where *lofs* and *ayllus* establish a bond between blood and earth. Keeping in mind that harm to the environment is the equivalent of harming Aymara and Mapuche, trade in virtual water severs ties within the basic social unit of the communities.

8) Conclusion

In using international human rights law as a political tool to assert Mapuche and Aymara jurisdiction toward restitution of water and lands, the right to property and life may serve this goal. In contrast to the abstraction and appropriation of Indigenous laws within state political discourses, international rights to property and life provide the opportunity to articulate Indigenous law against state law and regulatory processes. The industry capture of state regulation and allocation of water drives disparities in water access through economic influence and overextraction. As such, the right to life in the ECHR draws attention to this disparity by establishing EU countries as knowingly facilitating this disparity through free trade and foreign investment despite awareness of Chile’s ineffective domestic regulation of water-intensive natural resources.

The cycle of political exclusion, discrimination, and economic equality is traceable to Spanish colonialism and the re-opening of this colonial wound with Pinochet's dictatorship. The installation of borders, imposition of new ways of demarcating land and regulating water, the introduction of non-native tree plantations, modern industrial mineral extraction, and coastal governance policies have all operated to dispossess and exploit Indigenous lands and territories as part of an export-led economy. The allocation of water rights at no cost to industry, the labyrinthian procedures for Indigenous peoples' recognition, and state reliance on the market for distribution exacerbates Indigenous poverty and inaccess to water. The lack of public and private knowledge exchange and democratic participation effectively limits opportunities for emancipation within the state, amid a continuing legacy of violence. The recent failed attempt to replace the 1980 Constitution is a sign of public distrust in Chile's justice system.

At the same time, the introduction of public law provisions with 2022 amendment of the *Water Code* is a hopeful sign of change arising through efforts by grassroots movements.¹⁰⁶⁴ Despite ongoing violence and corruption, Mapuche and Aymara peoples continue subsistence forms of life, practicing a biocentric law that attempts to live and restore balance with nature. The environment is an agent with a voice in how it should be treated, and it is through a reciprocal relationship of care lasting millennia that Mapuche and Aymara peoples have maintained their ways of life. Rights recognition by the state merely seeks to appropriate Indigenous worldviews without affording them the equal recognition of their biocentric law as law. Indeed, international economic law and its associated treaties with the EU have worked to chill recognition and reestablishment of the traditional *lof* and *ayllu*.

¹⁰⁶⁴ Torres-Salinas & Marin, *supra* note 568 at 116; Macpherson et al, *supra* note 193 at 18-9.

Having established the ineffective protection of Indigenous lands and waters by the state, their role in detrimental environmental and human rights effects, and the facilitation of destruction by international economic law, the international human rights systems of the Americas and Europe provide a means for emancipation outside of state processes. The distance from the Chilean state in holding importing EU states responsible may visibilize the commodification of nature as a mere thing, the cumulative impact of domestic-international law, and raise awareness of nature as a foundational form of well-being. While international law and property discourses underlie harmful state ideology that appropriates nature, international forums may offer the opportunity to articulate *Suma Qamaña* and *Azmapu* as real means for re-establishing a biocentric law based in care and reciprocity.

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