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# Indigenous knowledge and freshwater governance in Aotearoa New Zealand

A Qualitative Analysis of Epistemic Justice, Relational Governance, and Policy  
Integration



*New Zealand, Aotearoa*

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Picture front page:

"Aerial view of the braided Rakaia River, Canterbury, South Island, New Zealand."

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# Preface

Writing this thesis has been an incredibly enriching and humbling experience. What initially drew me to this topic was the opportunity to step away from our normalized Western frameworks of knowledge and to explore a different worldview and kind of thinking. Delving into Māori perspectives on water governance allowed me to reflect critically on how knowledge is produced and whose voices are heard in shaping sustainable futures. It has taught me a new way of interacting with our environment.

Throughout this process, I have learned to see water not just as a resource, but as a living entity intertwined with culture, identity, and responsibility. Engaging with Māori epistemologies has broadened my understanding of our relationship with the environment. At the same time, I encountered challenges, particularly in how I interact as an outsider to the community, and in navigating the depth and richness of Māori terminology and concepts. Finding respondents from a different culture and on the other side of the world was a challenge I could not overcome. Despite these obstacles, the process of narrowing down my research focus and framing the core question was a key breakthrough that set the foundation for my work.

I would like to thank my supervisor, Vinícius Mendes, for his thoughtful feedback, encouragement, and commitment to critical and decolonial scholarship. But also in guiding me early on in finding the scope of my research. His guidance has helped me navigate this topic with both depth and cultural sensitivity. While implementing new ways of gathering knowledge. I am also grateful to the GPE department for fostering an environment of academic curiosity and reflection throughout my bachelor period. Finally, I thank my family and friends for their continuous support throughout this journey.

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Nijmegen, June 2025  
Dymion Disco

# Summary

This thesis investigates the role of mātauranga Māori in freshwater governance in Aotearoa New Zealand, asking whether Indigenous knowledge is meaningfully integrated into institutional practices. The study uses a mixed-method qualitative approach, combining thematic coding of policy documents, iwi plans, and audiovisual materials to identify patterns across four analytical domains: representation, governance, engagement, and influence.

Findings reveal that while Māori knowledge is increasingly referenced in environmental policies and legal frameworks, this inclusion often remains symbolic. Governance structures continue to filter Māori perspectives, maintaining Crown-dominated authority, and engagement processes tend toward procedural consultation rather than genuine partnership. Structural influence is limited and typically conditional, reflected only in isolated initiatives such as iwi-led environmental monitoring.

The thesis contributes to theoretical debates on epistemic justice, legal pluralism, and decolonisation. It extends the framework of epistemic injustice by showing how deliberate inclusion can uphold institutional power. The thesis highlights governance structures as filters that represents outcomes as overlapping rather than linear, and introduces feedback loops to show how inclusion experiences shape future engagement.

The conclusion emphasizes the need for institutional reforms that move beyond symbolic gestures to embed binding Māori co-decision-making, support relational engagement approaches, and accommodate tikanga-based monitoring. Future research should explore diverse Māori voices and assess the implementation of co-governance in practice.

# List of abbreviations

- BBC** – Likely refers to British Broadcasting Corporation (verify context)
- EPA** – Environmental Protection Authority
- ES** – Ecosystem Services (or Environmental Science, depending on context)
- ESR** – Institute of Environmental Science and Research
- FM** – Freshwater Management
- IEMP** – Iwi Environmental Management Plan
- NPS** – National Policy Statement
- NZ** – New Zealand
- RMA** – Resource Management Act

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# 1. Research framework

## 1.1 introduction

In recent years, New Zealand has drawn international attention for its groundbreaking legal recognition of rivers as living entities, most notably through the Te Awa Tupua (Whanganui River Claims Settlement) Act 2017. This legal innovation reflects a broader shift toward recognizing Indigenous Māori perspectives in freshwater governance, including the integration of mātauranga Māori into national environmental policy frameworks such as the National Policy Statement for Freshwater Management (Ministry for the Environment, 2020). While this shift signals increasing state recognition of Māori values, questions remain about how deeply Indigenous knowledges are structurally embedded in policy and practice (Macpherson & Turoa, 2025).

With these developments, New Zealand has positioned itself as a global leader in recognizing Indigenous perspectives as central to national and regional policymaking. Globally, Indigenous knowledge systems are gaining attention for their ecological insights, particularly those grounded in place-based, relational, and intergenerational worldviews (Berkes, 1993). As New Zealand continues to lead this progressive shift, international interest has focused on its evolving governance models. Within this context, Māori ontologies and cultural frameworks have emerged as globally influential, placing Māori environmental governance at the forefront of Indigenous knowledge debates.

Mātauranga Māori is the holistic body of Māori knowledge, wisdom, traditions, and practices. It offers a distinct and grounded epistemology. It differs significantly from dominant Western scientific approaches, prompting scholars and policymakers alike to engage with contemporary environmental challenges through alternative lenses of knowledge (Harmsworth et al., 2016). Central to mātauranga Māori is a relational worldview that emphasizes the interconnectedness of people, land, water, and spiritual dimensions, challenging the fragmented and mechanistic methods often found in Western environmental management. This epistemological foundation not only broadens our understanding of sustainability but also reconfigures how environmental governance can be approached in more culturally embedded and relationally informed ways (Roberts et al., 1995).

A significant contribution of Māori values to this epistemological foundation is their framing of environmental governance through relational ontologies, which position rivers and ecosystems not as resources, but as kin or ancestors with inherent mana and agency (Parsons & Crease, 2024). Unlike dominant paradigms that treat nature as separate from society and available for extraction or control, relational ontologies emphasize reciprocal obligations and interdependence. Through whakapapa, Māori understand rivers and ecological systems as part of an extended kin network, embedding them in familial relationships that entail mutual care and respect. This worldview was legally enshrined in the Te Awa Tupua Act 2017, which granted the river legal personhood, affirming its status as a living and indivisible whole. Such recognition moves beyond symbolic inclusion to reflect a transformative governance paradigm grounded in legal pluralism and epistemic justice.

Furthermore, New Zealand's environmental governance is shaped by a bicultural foundation established through Te Tiriti o Waitangi (1840), the foundational agreement between the British Crown and Māori. As both a legal and moral cornerstone, Te Tiriti affirms Māori tino rangatiratanga (self-determination) over lands, waters, and taonga, and continues to inform contemporary debates over Indigenous rights and resource governance. Building on this foundation, environmental management in Aotearoa New Zealand has increasingly embraced co-governance models that reflect Māori worldviews, with Aotearoa referring to the Māori name for the country that highlights its Indigenous foundations and is gaining recognition across political, academic, and legal spheres

(Skerrett, 2011). Notable examples include the Waikato River Authority, a co-governance body established through settlement agreements with Waikato-Tainui, and the Te Urewera Act 2014, which granted legal personhood to a former national park. These developments institutionalize mātauranga Māori within formal governance frameworks while raising critical questions about the depth of power-sharing and epistemic equity in practice (O'Donnell & Talbot-Jones, 2018; Macpherson, 2020).

Despite these promising developments, there remains a need to critically examine how mātauranga Māori is recognized and operationalized within contemporary freshwater governance frameworks. While legal and policy instruments increasingly reference Indigenous worldviews, the extent to which they enable genuine power-sharing and epistemic justice is still contested. This thesis takes up that challenge by investigating how Indigenous knowledges are engaged in sustainable water governance in New Zealand. The following chapters will outline the central research problem and questions guiding this inquiry, and clarify its academic and societal relevance within broader debates on decolonization, environmental justice, and co-governance.

## 1.2 Research problem

The growing global awareness of the importance of including Indigenous voices in policymaking is steadily gaining momentum. In Aotearoa New Zealand, the increasing recognition of mātauranga Maori in freshwater governance represents a significant and progressive step in this direction. However, as with any effort to integrate new worldviews into established structures, it remains unclear how deeply these perspectives are actually being embedded. This raises the question of whether recent developments reflect genuine representation and co-governance, or if they risk being reduced to tokenistic inclusion. Only by studying these changes closely can we begin to understand whether relational ontologies are meaningfully shifting environmental decision-making.

While legal frameworks increasingly reference Maori knowledge and values, limited research has examined how this results in real changes to the logics and structures of environmental governance, or whether dominant paradigms remain intact. Case studies have shown that integration of Indigenous voices in New Zealand has grown since the early 2000s, particularly following major Treaty settlements and legislative innovations in river governance (O'Donnell & Talbot-Jones, 2018). Still as Whyte (2020) argues, achieving epistemic justice requires more than inclusion. It involves ensuring Indigenous knowledges have real influence in shaping decisions. This aspect has not yet been thoroughly explored. Therefore, this thesis focuses on how mātauranga maori is engaged within water policy and governance in New Zealand, and to what extent this engagement has led to structural changes.

## 1.3 Research objective

This thesis aims to investigate how Indigenous Māori knowledge systems, particularly mātauranga Māori, are engaged within water governance in Aotearoa New Zealand. The objective is to assess the extent to which recent policy developments and co-governance arrangements reflect genuine structural inclusion of Māori worldviews, or whether these remain largely symbolic in nature. The research focuses on the representation, integration, and influence of Māori knowledge in key national water policies and selected co-governance models, including frameworks informed by Treaty settlements. Methodologically, this study applies a qualitative approach, combining document analysis with semi-structured interviews to explore both formal policy language and lived governance

practices. The analysis is guided by the concept of epistemic justice, with attention to how Indigenous ontologies are recognized, valued, and empowered within state-driven environmental governance structures.

## 1.4 Research question and sub-questions

This thesis investigates how Indigenous Māori knowledge systems, particularly mātauranga Māori, are engaged in sustainable water governance in Aotearoa New Zealand. It aims to understand whether recent developments reflect genuine inclusion or remain largely symbolic in nature. This is explored through the central research question:

**“How have Indigenous knowledges influenced sustainable water management policies in New Zealand?”**

To address this main question, the following sub-questions guide a focused empirical analysis:

- 1. How are Māori knowledge systems represented in national and regional water policies?**  
This question focuses on the symbolic and tokenistic inclusion of concepts such as mātauranga Māori, Te Mana o te Wai, and kaitiakitanga in planning and policy frameworks. It supports an analysis of how Māori perspectives are currently represented through policy discourse and formal documents.
- 2. What governance structures enable or constrain Indigenous influence on water management?**  
This sub-question examines the legal and institutional mechanisms that shape the degree of Indigenous participation. It explores frameworks such as the Resource Management Act (RMA), co-governance arrangements, and the barriers that limit or support Māori engagement in decision-making.
- 3. How do Māori actors engage with institutional decision-making processes?**  
This question investigates the role of iwi and hapū in consultation procedures, agreements such as Mana Whakahono ā Rohe, and other participation mechanisms. It focuses on the practical involvement of Māori actors in water governance and how their agency is exercised within institutional settings.
- 4. In what ways has mātauranga Māori shaped policy outcomes or governance practices?**  
This final sub-question assesses whether Indigenous knowledge systems have had a substantive effect on how water is managed, evaluated, or governed in practice. It provides a deeper interpretation of how Māori worldviews and relational knowledge have influenced the governance of freshwater in Aotearoa New Zealand.

These sub-questions structure both the data collection and analysis in Chapters 3 and 4 and form the foundation for the discussion and conclusion that follow.

## 1.5 Relevance

### 1.5.1 Scientific relevance

A substantial amount of scientific research has already been conducted on indigenous knowledge and sustainable water governance, with a many case studies from New Zealand. These studies aim to explore the broader potential of water management. For this research, it is essential to build on the existing knowledge while also contributing to enhancing it. Many studies on the influence of indigenous knowledge focus on specific cases. However, concentrating on a single case has made it difficult to assess the long-term impact of indigenous knowledge on water governance. As Turoa and Macpherson point out, further research is needed to better understand how policy adjustments and governance models have evolved in forming policies over time (2025). This thesis aims to address that gap by focusing on the ongoing impact of indigenous knowledge on water policy.

One of the most significant contributions of indigenous knowledge to water management is its focus on the interconnection between ecosystems and cultural heritage. A notable example is the recognition of the Whanganui River as a legal person under the Te Awa Tupua (Whanganui River Claims Settlement) Act 2017, which marks a shift in environmental governance. This legal recognition, based on Māori cosmology, treats water bodies as living entities with inherent rights, rather than as mere resources (Bulmer et al., 2024) for human exploitation (New Zealand Government, 2017). As a result, scientific research has started to incorporate these indigenous principles into environmental monitoring frameworks, offering a more holistic approach to river health assessments.

By adopting a more holistic and interdisciplinary approach, this research builds on previous studies. However, the main objective of this thesis is to clearly examine how the growing movement to integrate indigenous knowledge into scientific and policy-making processes is influencing policy decisions. Research on indigenous knowledge is steadily gaining traction in the scientific community. The interdisciplinary methods used in this field provide valuable insights into how this fresh perspective has influenced decision-making. Further investigation into the real-world impact that indigenous knowledge has had on policy formation in countries like New Zealand will help us understand these processes better and refine the way we study this influence (Voyde, 2018).

### 1.5.2. Social relevance

It has become increasingly important to consider indigenous voices within both scientific and governmental frameworks. A striking example of this occurred in November 2024, when New Zealand's parliament was temporarily halted following a traditional haka performed by a Māori parliament member. This act was a protest against the reinterpretation of the country's founding treaty with Māori people (BBC News, 2025). Despite New Zealand's reputation as a leader in indigenous rights, opponents of the new bill argue that these rights are being undermined.

Water protection is a central tradition in Māori culture, deeply embedded in their lore and customs. As one Māori proverb (Whakataukī) expresses, "Rain (water) is the tears of our Sky Father, expressing his grief because of his separation from our Earth Mother. This reflects the Māori belief that water is sacred, essential for the health of both the land and its people.

Integrating indigenous knowledge into water management practices is crucial for advancing social equity in New Zealand. Māori communities, historically marginalized in decision-making, are now asserting their role in shaping policies that impact their lands and waters (EPA, 2023). New Zealand

has made advancements in recognizing the significance of Māori governance, notably through the legal personhood granted to the Whanganui River. This move acknowledges the deep cultural and spiritual connection Māori people have with the water (New Zealand Government, 2017).

Furthermore, the integration of Māori knowledge fosters greater collaboration between Māori communities and governmental agencies. Collaborative efforts such as those seen in water management help us understand how indigenous knowledge can inform sustainable practices and enhance policy development, ensuring that indigenous perspectives are respected and incorporated into decision-making processes. This not only benefits Māori communities but also helps create more sustainable and culturally inclusive policies for all New Zealanders.

## 1.6 Thesis structure

This thesis is divided into six chapters. Following this introductory chapter, Chapter 2 outlines the theoretical framework by introducing key concepts that guide the analysis, including mātauranga Māori, Indigenous knowledge systems, co-governance, and epistemic justice. These provide the foundation for understanding how Māori perspectives are engaged in freshwater governance. Chapter 3 presents the methodology, detailing the qualitative research approach used in this study, including data collection methods such as document analysis and semi-structured interviews, as well as the coding process and researcher positionality. Chapter 4 presents the empirical findings and answers the sub-questions, focusing on how Māori knowledge is represented in policy, how governance structures affect Indigenous influence, how Māori actors engage in decision-making, and to what extent mātauranga Māori has shaped policy outcomes. Chapter 5 discusses the findings in light of the theoretical framework and reflects critically on the implications, limitations, and contributions of the research. Finally, Chapter 6 concludes the thesis by summarizing the main insights, offering reflections, and suggesting directions for future research and practice.

## 2. Theoretical framework

This chapter introduces the key concepts and theoretical lenses that underpin this thesis. The aim of this chapter is to guide the analysis and link theory to empirical data. It begins by examining the contrasting knowledge systems and epistemological tensions that shape the relationship between dominant Western scientific paradigms and Indigenous ways of knowing. The following sections outline core theoretical concepts drawn from existing literature, which form the basis for the analytical approach used in Chapter 4. Subsequently, the chapter engages with case study-based research that contributes to understanding Indigenous governance practices in Aotearoa New Zealand. The chapter concludes by presenting a conceptual model that integrates insights from the literature on Indigenous knowledge and environmental policy, providing a framework for interpreting the empirical findings.

### 2.1 Knowledge systems

This section explores the tensions between Indigenous and Western knowledge systems, which are central to understanding the structural embedding of mātauranga Māori in freshwater governance in Aotearoa New Zealand. Knowledge systems refer to the organized and culturally embedded ways of understanding, interpreting, and interacting with the world. They encompass not only what people know, but also how that knowledge is acquired, why it matters, and how it is passed on, validated, and applied in practice (Berkes, 1993). These tensions are particularly relevant in policy contexts where Indigenous and Western worldviews intersect. Historically, environmental policy in New Zealand has been shaped primarily by Western epistemologies, often marginalising Māori knowledge and methods in governance and decision-making (Hikuroa, 2017).

#### 2.1.1 Mātauranga Māori

Mātauranga Māori represents the central theoretical framework emerging from Māori knowledge systems. It is best understood as a holistic, intergenerational, and place-based ontology that reflects a uniquely Māori way of knowing and being (Harmsworth et al., 2016). At the heart of this worldview is the principle of relationality, which is the understanding that humans are by their very nature connected to the natural world. Rather than viewing rivers, mountains, and land as separate resources, Māori understand them as kin, with whom they share genealogical ties. This deep relationship is expressed through the concept of whakapapa, which structures not only ancestry among people, but also links between humans and the environment (Hikuroa, 2017). Whakapapa is thus foundational to how Māori build, transmit, and apply knowledge, shaping their ethical and spiritual responsibilities to the world around them.

These relationships and responsibilities within mātauranga Māori are not only conceptual but are enacted through a set of deeply held, interconnected values. One of the most fundamental of these is mauri, the life force or vital essence present in all people, ecosystems, and elements of the environment. The state of a river's mauri, for instance, reflects its spiritual and ecological wellbeing, and maintaining or restoring that mauri is a core principle of Māori environmental ethics (Harmsworth et al., 2016).

Closely linked is the principle of kaitiakitanga, often translated as guardianship or stewardship. Unlike Western environmental management frameworks that separate people from nature, kaitiakitanga emerges from genealogical ties to land and water. It is a relational obligation: those who hold mana whenua, legal authority over a particular place, are responsible for exercising kaitiakitanga to care for the mauri of that place across generations (Paul-Burke et al., 2018).

Tapu, meaning sacredness or restriction, also shapes how people interact with the environment. Certain places or entities are considered tapu due to their spiritual significance, and this status governs the protocols and behaviours deemed appropriate in relation to them. For example, the designation of specific rivers or wetlands as tapu can function as a form of protective regulation grounded in spiritual respect rather than resource extraction (Hikuroa, 2017).

Together, these values form the ethical and spiritual foundation of mātauranga Māori. They define not only how knowledge is produced and transmitted, but also how responsibilities to the environment are enacted. Importantly, they challenge dominant environmental governance models by asserting a worldview in which land and water are not resources to be managed, but kin to be cared for.

### 2.1.2 Western Scientific knowledge and Dominant governance Paradigms

Western scientific knowledge systems have historically played a dominant role in shaping environmental governance, including freshwater management, both globally and in Aotearoa New Zealand. These systems are rooted in Enlightenment-era ideals of objectivity, rationalism, and empirical observation, often emphasizing the compartmentalization of nature into measurable and manageable components. Within this paradigm, freshwater is typically understood as a biophysical resource that can be quantified, extracted, and regulated through technical and legal frameworks (Turner, Morse-Jones, & Fisher, 2010; Mace, 2014).

This epistemological approach is reflected in common governance tools and models, including cost-benefit analysis, catchment-scale hydrological modelling, and ecosystem services valuation. These tools are widely used to inform decisions around water allocation, pollution thresholds, and infrastructure planning, with a strong emphasis on efficiency, standardization, and predictability (McGaw, Hikuroa, & Davies, 2020). They contribute to what is often described as a technocratic mode of governance, where decision-making is guided by scientific expertise and regulatory procedures.

Within New Zealand's policy context, this scientific paradigm continues to underpin legislation such as the Resource Management Act (RMA) and informs national-level strategies for freshwater quality and allocation. Concepts like ecosystem services, for example, help frame environmental assets in economic terms, enabling their inclusion in planning and funding decisions (Turner et al., 2010). However, this framework typically approaches water as a unit of environmental management rather than as a relational or cultural entity.

This contrasts with Māori perspectives, which are guided by different ontological assumptions, particularly the idea that rivers, lakes, and wetlands are living entities with inherent value. For example, Te Mana o te Wai, a principle embedded in New Zealand's National Policy Statement for Freshwater Management (NPS-FM), represents an effort to center water's health and mauri (life force) in governance processes (Ministry for the Environment, 2020). While Te Mana o te Wai may appear within the same governance documents informed by Western frameworks, it draws from a distinctly different worldview that places emphasis on reciprocal relationships, guardianship (kaitiakitanga), and spiritual responsibility.

### 2.1.3 Epistemic pluralism and Epistemic injustice

Even though these knowledge systems have different approaches to viewing and governing water bodies valid knowledge systems do not exclude each other. Multiple valid knowledge systems should coexist within the same space (Berkes, 1993; McGaw et al., 2020). This Epistemic pluralism is key to combining Western based knowledge systems and Indigenous based knowledge systems. The

contrary option would be based upon Epistemic injustice, where knowledge is excluded and devalued (Fricker, 2007; Whyte, 2020). I

Even though Indigenous and Western knowledge systems offer fundamentally different ways of understanding and governing freshwater, they need not be exclusive to each other. Multiple knowledge systems can and should coexist within governance frameworks as portrayed by the concept of epistemic pluralism (Berkes, 1993; McGaw, Hikuroa, & Davies, 2020). Epistemic pluralism recognizes that different ways of knowing, such as mātauranga Māori and Western science, are valid in their own right and can contribute complementary insights to environmental decision-making. This principle is central to efforts aimed at integrating Indigenous perspectives into state-led policy systems without marginalising one or the other.

In contrast, epistemic injustice occurs when certain knowledge systems are excluded, devalued, or misrepresented due to imbalanced power structures (Fricker, 2007; Whyte, 2020). Fricker (2007) distinguishes between two key forms: testimonial injustice, where someone's knowledge is dismissed because of their social identity, and hermeneutical injustice, where structural gaps in interpretive resources prevent that knowledge from being fully understood or articulated within dominant frameworks. In the context of freshwater governance, these injustices can occur when Māori actors are included in consultation processes, yet their perspectives are not taken seriously, or when mātauranga Māori is referenced in policy language without being genuinely embedded in decision-making logics.

The relevance of these concepts lies in their ability to distinguish between tokenistic inclusion and meaningful participation. Merely referencing Indigenous knowledge in governance documents does not necessarily create epistemic equity. Analysing the depth of inclusion and how knowledge is valued, used, and allowed to shape outcomes is therefore essential to assessing the role of mātauranga Māori in freshwater governance. As Whyte (2020) argues, achieving epistemic justice requires more than recognition. It demands that Indigenous worldviews influence the very structures and priorities of environmental governance.

#### 2.1.4 Link to analytical approach

The preceding sections have outlined the ontological and epistemological tensions between Indigenous and Western knowledge systems, highlighting the distinct worldviews, values, and governance paradigms that shape freshwater policy in Aotearoa New Zealand. While Western frameworks tend to prioritize compartmentalization, measurability, and technocratic management, mātauranga Māori is grounded in relational, holistic, and place-based principles. These differences generate not only practical challenges in policy integration but also deeper conceptual frictions about what constitutes valid knowledge. The concepts of epistemic pluralism and epistemic injustice provide a theoretical lens to assess whether mātauranga Māori is treated as a foundational source of knowledge or simply referenced symbolically. These tensions will guide the empirical analysis in Chapter 4, where policy texts, governance frameworks, and Māori engagement practices are critically examined through the lens of epistemic inclusion and ontological compatibility.

### 2.2 Key concepts

Before turning to the empirical investigation, it is essential to outline a set of key concepts that form the foundation for understanding the subject of this thesis. This section introduces central ideas such as co-governance, legal pluralism, tokenism, colonialism, decolonization, kaitiakitanga, governance

structures, and the roles of iwi and hapū. These concepts provide the analytical vocabulary through which the relationship between mātauranga Māori and freshwater governance in Aotearoa New Zealand can be critically examined. By clarifying how these terms are understood within existing academic literature and their relevance to Indigenous-state relations, this chapter establishes the conceptual groundwork necessary for interpreting the findings presented in later chapters.

### 2.2.1 Co-Governance

Co-governance refers to governance arrangements in which decision-making authority is shared between different parties, often Indigenous communities and state institutions. In the context of Aotearoa New Zealand, co-governance typically involves Māori, usually represented by iwi or hapū, working alongside regional or local governments to manage natural resources, including freshwater bodies (O'Donnell & Talbot-Jones, 2018). This concept provides a valuable analytical lens to assess the degree of power-sharing in freshwater governance.

Co-governance can take different forms, depending on the level of authority granted to Māori partners. At one end of the spectrum are advisory arrangements, where Māori contribute perspectives through consultation, but the final decisions remain with the Crown or regulatory bodies. At the other end are joint decision-making frameworks, where Māori actors are structurally integrated into the governance process and hold equal decision-making power, as seen in the Waikato River Authority and Te Urewera Board (Ruru, 2018; Hikuroa et al., 2011). These stronger models of co-governance reflect attempts to embody indigenous principles, moving beyond symbolic inclusion toward more equitable and collaborative forms of environmental management.

### 2.2.2 Legal Pluralism

Legal pluralism refers to the existence of more than one legal system within the same society. In Aotearoa New Zealand, this includes both state law and Māori customary law, or tikanga Māori (Charters, 2004). The idea of legal pluralism helps to understand how Māori values like mana whenua, whakapapa, and kaitiakitanga are recognized or often not recognized within formal governance structures (Ruru, 2011).

Although some legislation, such as the Te Awa Tupua Act 2017, includes Māori legal principles by granting legal personhood to rivers, most environmental law in New Zealand still prioritizes Western legal systems (O'Donnell & Talbot-Jones, 2018). Recognizing legal pluralism means taking Māori law seriously, not just consulting Māori but allowing their legal traditions to shape governance. Without this, Māori knowledge may be included in name, but not in actual decision-making (Mikaere, 2011).

### 2.2.3 tokenism

Tokenism refers to the superficial or symbolic inclusion of individuals or knowledge systems, without granting them real influence in decision-making. In freshwater governance, this can happen when Māori are included in consultation processes or mentioned in policy documents, but their perspectives do not actually shape outcomes or institutional structures (Whyte, 2020). Tokenism creates the appearance of inclusion, while the underlying systems of power remain unchanged. It can also result in Māori knowledge, such as mātauranga Māori, being used to add cultural legitimacy to policies, without truly valuing it as a basis for governance.

Fricker (2007) identifies this as a form of epistemic injustice, especially when Indigenous voices are either not believed or not understood within the dominant system. These concepts help to evaluate whether Māori participation in environmental policy is meaningful or simply a formality. For this thesis, tokenism is an important lens to assess whether the recognition of mātauranga Māori leads to actual structural change or remains limited to surface-level gestures.

## 2.2.4 Colonialism

Colonialism refers to the historical and ongoing process through which Indigenous lands, resources, and governance systems have been taken over or controlled by colonial powers. In Aotearoa New Zealand, British colonization led to the widespread dispossession of Māori land and the marginalization of mātauranga Māori in legal and political systems (Smith, 2012). Environmental governance structures were developed largely through Western legal and scientific frameworks, often excluding Māori worldviews and rights.

This legacy continues to shape freshwater policy today, where the dominance of state institutions and Western knowledge systems often reflects a continuation of colonial authority. Although efforts have been made to include Māori perspectives through co-governance models or references to Te Mana o te Wai, these are still shaped by the structures of a settler state. Understanding colonialism as both a historical and current force helps this thesis assess whether Indigenous knowledge is being included in a way that challenges colonial power, or simply adapted into existing systems without changing them.

## 2.2.5 Decolonization

Decolonization refers to the process of transforming power relations by resisting colonial frameworks and privileging Indigenous authority, knowledge systems, and relationships with land and water (Nuttall, 2023). In the context of freshwater governance in Aotearoa New Zealand, decolonization involves more than simply including Māori voices. It requires shifting power back to Māori communities and recognising mātauranga Māori as a legitimate foundation for decision-making (Smith, 1999; Tuck & Yang, 2012). This means moving beyond consultation toward structural changes that support Māori-led governance, legal pluralism, and Indigenous ways of relating to the environment.

Tuck and Yang (2012) warn that decolonization should not be reduced to symbolic acts or inclusion within colonial frameworks, as this risks reinforcing the very structures it aims to dismantle. For this thesis, decolonization is an important concept because it frames the inclusion of Māori knowledge not just as a question of recognition, but of justice, authority, and self-determination in environmental governance.

## 2.2.6 Governance structures

Governance structures refer to the formal and informal institutions, mechanisms, and processes through which authority is exercised and decisions are made about the management of resources like freshwater (Taylor, 2023). In Aotearoa New Zealand, freshwater governance is shaped by a combination of national legislation, such as the Resource Management Act (RMA), regional councils, and treaty-based agreements with Māori (Ruru, 2018). These structures determine who has the

power to make decisions, how consultation is carried out, and what forms of knowledge are considered valid.

For Māori, governance structures also involve iwi and hapū authority, grounded in mana whenua and tikanga Māori. However, these Indigenous forms of governance often operate alongside or beneath state-led institutions, creating tensions about whose authority takes precedence. Understanding governance structures is important for this thesis because it provides the institutional context in which mātauranga Māori is either integrated into or excluded from freshwater decision-making processes.

### 2.2.7 Kaitiakitanga

Kaitiakitanga is a central concept within mātauranga Māori, often translated as guardianship or stewardship. However, its meaning goes beyond environmental care in the Western sense. Kaitiakitanga reflects a deep, genealogical relationship between Māori and the environment, rooted in whakapapa, mana whenua, and mauri which is the life force present in all things (Harmsworth & Awatere, 2013). Those who hold mana whenua have inherited responsibilities to act as kaitiaki (guardians) over specific lands and waters, ensuring their wellbeing for present and future generations.

In freshwater governance, kaitiakitanga challenges dominant models that treat water as a resource to be allocated and managed. Instead, it presents a relational ethic where water bodies are considered ancestors or kin, requiring care, respect, and spiritual responsibility. For this thesis, kaitiakitanga is essential to understanding how Māori approach environmental governance from a value-based perspective that differs fundamentally from extractive or technocratic models.

### 2.2.8 Iwi and Hapū

Iwi and hapū are central social and political structures within Māori society. Hapū (sub-tribes) are typically the primary political units with authority over specific areas, while iwi (tribes) are larger kinship groupings often formed by networks of related hapū. Both play key roles in environmental governance, especially in relation to mana whenua—the customary authority over land and water within a particular region (Durie, 1998). These entities hold the right and responsibility to exercise kaitiakitanga and maintain the wellbeing of their ancestral territories.

In the context of freshwater governance, iwi and hapū are often the official Māori representatives in treaty settlements, co-governance arrangements, and environmental planning processes. However, there can be tensions when the state engages primarily with iwi-level institutions, while local hapū knowledge and authority are overlooked. Understanding the roles of iwi and hapū is therefore essential for analysing how Māori participation in governance is structured, and whether it reflects traditional authority or is shaped by state-defined categories.

### 2.3 Conceptual model

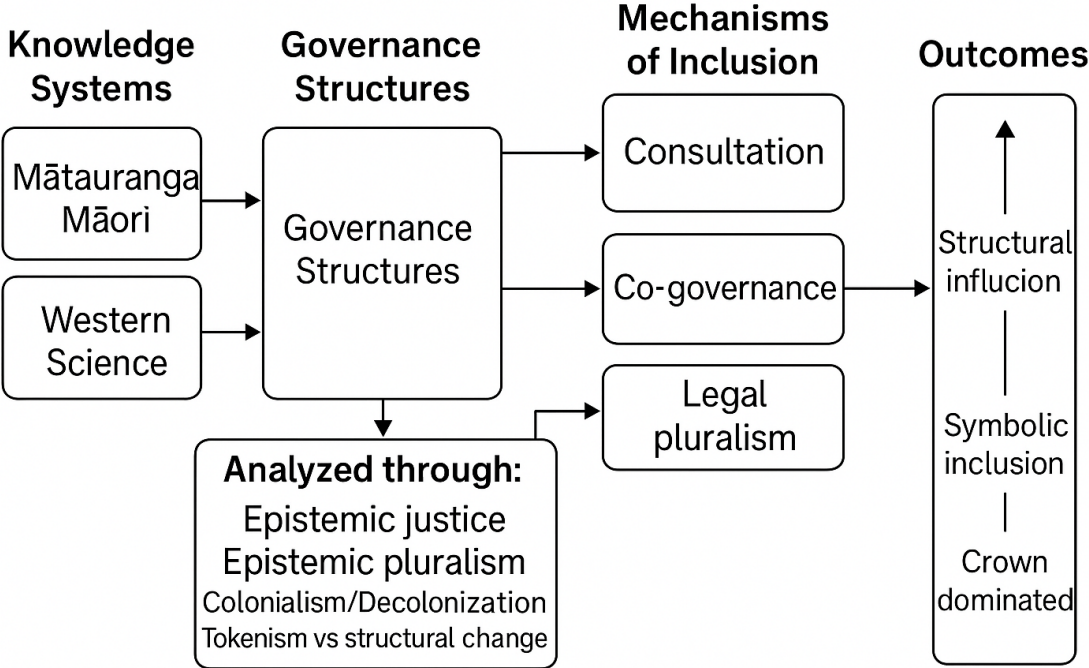


Figure 1: conceptual model

This conceptual model outlines the key components and relationships that guide the analysis in this thesis. It is developed to investigate how mātauranga Māori is engaged within freshwater governance in New Zealand, and whether this engagement results in meaningful structural change or remains largely symbolic.

At the foundation of the model are two distinct knowledge systems: mātauranga Māori the indigenous knowledge system of the Māori and Western science. Mātauranga Māori is holistic, place-based, and relational, guided by values such as kaitiakitanga, whakapapa, and mauri (Harmsworth et al., 2016; Hikuroa, 2017). In contrast, Western scientific knowledge is characterized by rationalism, compartmentalization, and an emphasis on quantification (Turner et al., 2010; Mace, 2014).

These knowledge systems feed into governance structures, which include national legislation, regional policies and institutional arrangements such as co-governance structures. Within these structures, mechanisms of inclusion define how Indigenous perspectives are brought into governance. These mechanisms range from consultation, to co-governance, to the recognition of legal pluralism. Each defining different degrees of Māori influence and authority (O'Donnell & Talbot-Jones, 2018; Ruru, 2018).

The conceptual model is analytically framed through the lenses of epistemic justice and epistemic pluralism. Epistemic pluralism proposes that multiple ways of knowing can coexist and contribute meaningfully to governance (Berkes, 1993; McGaw et al., 2020). In contrast, epistemic injustice (Fricker, 2007; Whyte, 2020) draws attention to how Indigenous knowledges can be marginalized—either through testimonial injustice (not being believed) or hermeneutical injustice (not being understood).

Finally, the model leads to governance outcomes, ranging from symbolic inclusion, where mātauranga Māori is mentioned but not structurally embedded, to structural influence, where Indigenous knowledge reshapes governance practices and priorities. The key aim of this thesis is to analyse where current freshwater governance efforts fall along this spectrum, and whether they promote genuine epistemic justice or perpetuate colonial patterns under the appearance of inclusion.

This model will be used in Chapter 4 to structure the empirical analysis of policy documents, co-governance case studies, and Māori engagement strategies. It provides a coherent lens through which the influence of Indigenous knowledge can be critically assessed.

## 3. Methodology

### 3.1 Research method

This study applies a qualitative case study approach to explore the influence of Indigenous knowledge systems on sustainable water governance in Aotearoa New Zealand. A qualitative case study is well-suited for examining complex socio-political processes in their natural settings, particularly when contextual factors are essential for understanding the phenomenon under investigation (Yin, 2018).

Qualitative research emphasizes depth over breadth, allowing for a nuanced understanding of meanings, relationships, and institutional dynamics. This approach is especially appropriate for investigating how knowledge systems interact with environmental governance frameworks, where cultural, legal, and ecological dimensions are deeply intertwined (Creswell, 2013).

Data for the study will be drawn primarily from document analysis, including national policy texts, legal frameworks, government reports, academic literature, and community-authored documents. This method allows for the identification of patterns in discourse, institutional change, and the visibility of different knowledge systems within governance structures. Analysing a diverse range of texts enhances the credibility of the study by offering multiple perspectives on the same process (Patton, 2002).

If access and participant willingness allow, supplementary semi-structured interviews may be conducted with selected stakeholders such as governance actors, policy professionals, or academic experts. However, given potential constraints around time, accessibility, or ethical considerations, interviews are not guaranteed. The research design therefore prioritizes sources that are publicly available and systematically documented, ensuring that the study remains feasible and academically rigorous even without primary fieldwork data.

The collected data will be analysed through a thematic analysis approach. This method involves coding textual materials and organizing them into thematic categories that relate to the research questions. Thematic analysis is a widely accepted and adaptable tool in qualitative research, allowing for the systematic identification and interpretation of key themes across diverse data sources (Braun & Clarke, 2006).

In sum, this methodology supports a theoretically informed and context-sensitive investigation into the role of Indigenous knowledge in environmental governance, while remaining flexible to practical constraints in data access.

### 3.2 Data collection

The data collection strategy for this research is designed to support an in-depth qualitative case study on the role of Indigenous knowledge in shaping freshwater governance in Aotearoa New Zealand. It primarily relies on secondary data sources, selected for their relevance, credibility, and direct connection to the study's central themes of governance, law, and environmental management.

The data corpus includes a range of official policy documents, legislation, iwi management plans, and technical reports. Examples include the Ngāti Tūwharetoa Environmental Iwi Management Plan (2003), the Waikato River Act (2010), and government-issued guidelines such as the Mana Whakahono ā Rohe Guide (Ministry for the Environment, 2018). These texts provide insights into institutional design, Treaty-based co-governance arrangements, and local expressions of authority in

environmental stewardship. To complement these sources, I attempted to initiate primary data collection through interviews. Over 25 Māori institutions, researchers, and governance actors were contacted via email with an invitation to participate in semi-structured interviews. However, no responses were received. This limited engagement reinforces the researcher's outsider status and highlights the challenges of gaining access and building trust in cross-cultural research, particularly when conducted remotely.

In addition, scientific reports and policy briefs, such as Hepi and Foote's (2013) work on integrating Indigenous knowledge into environmental decision-making, offer empirical findings and theoretical reflections relevant to the research questions. Further, discussion materials from the ongoing Resource Management Act reform process have been included to contextualize current governance transitions (Ministry for the Environment, 2021).

Where appropriate and feasible, the research may also incorporate qualitative input from experts or stakeholders involved in water governance. However, the inclusion of such data depends on ethical approval, accessibility, and participant willingness. Therefore, the study is methodologically designed to remain viable even without primary interview data, relying on rich and triangulated documentary sources to build analytical insights.

This approach aligns with standard practices in qualitative research, which recognize the validity and interpretive value of written texts as data sources (Bowen, 2009). Document analysis provides a flexible, unobtrusive, and ethically sound means to examine how Indigenous values and knowledge practices are represented, negotiated, or omitted in environmental governance discourse.

Data sources were selected through purposive sampling, based on their alignment with the case study focus, legal and cultural significance, and authorship credibility. Documents were retrieved from official government websites, iwi trust publications, and academic repositories, ensuring authenticity and transparency of the data trail.

### 3.3 Coding

To analyse the empirical data in a systematic and transparent way, this study employed a theory-informed, deductive coding approach complemented by inductive refinement. The purpose of this dual approach was to translate the overarching research question and its sub-questions into analytically usable categories, grounded in both conceptual literature and the contextual specifics of environmental governance in Aotearoa New Zealand.

#### 3.3.1 Codebook Development

The development of the codebook followed three iterative phases. First, each of the four sub-questions was translated into an analytical category. These include: the representation of Indigenous knowledge systems in policy and planning (sub-question 1), the structure and functioning of co-governance arrangements (sub-question 2), the roles and participation of Māori actors (sub-question 3), and the influence of Indigenous worldviews on policy outcomes (sub-question 4).

Second, these categories were populated with key concepts identified through engagement with relevant literature and policy texts. Theoretical inputs came from authors such as Harmsworth, Awatere, and Robb (2016), Maxwell et al. (2020), Parsons and Crease (2024), and Hepi et al. (2018). Concepts like epistemic recognition, relational governance, and self-determination were central in shaping the thematic contours of the codebook. Additional empirical input was drawn from

documents such as the National Policy Statement for Freshwater Management and specific case studies, including those of the Kaipara and Whanganui River co-governance models.

Third, these thematic elements were operationalized into discrete codes. Each code was assigned a name, a brief definition, and an explanation of its conceptual or empirical relevance. For instance, codes such as “Advisory role only” (indicating limited decision-making power of Māori actors), or “Capacity funding requested” (indicating resource-based constraints), were linked to broader themes like governance structures and engagement. Māori terms used in documents—such as *ahi kā*, *tino rangatiratanga*, or *Te Mana o te Wai*—were not treated as symbolic references but were contextualized for their deeper epistemological meaning in policy processes.

The final codebook, developed in Excel format, reflects this layered structure. Each code is classified under one or more thematic groups, making it possible to trace how specific segments of text relate to broader categories of inquiry. This classification supports both depth and clarity in subsequent data interpretation.

### 3.3.2 Coding Process

The coding was conducted using a thematic analysis approach, following the methodological guidelines outlined by Braun and Clarke (2006). The documents included in the analysis ranged from environmental legislation and planning documents to iwi environmental management plans and academic publications.

The codes were applied to these documents manually, using close reading and interpretation to identify relevant segments. Rather than coding based on keyword frequency, emphasis was placed on the analytical significance of a segment within broader debates on knowledge systems, governance power, and institutional change.

Each coded segment was accompanied by an analytical memo, which recorded reflections on the context, meaning, and theoretical implications of the excerpt. These memos also documented the coder’s evolving interpretations and supported a reflexive engagement with the material.

This process allowed for the identification of patterns across documents while retaining attention to specificity and context. It also helped maintain a critical awareness of the researcher’s positionality, especially in interpreting concepts grounded in Indigenous worldviews. In this way, the coding was not only a technical task but an interpretive and ethical one, aimed at producing insights that respect the integrity of different knowledge systems.

## 3.4 positionality

In qualitative research, especially when it involves Indigenous knowledge systems, acknowledging the researcher’s positionality is critical. This section reflects on my social location, epistemological standpoint, and the implications these have for how the research was conducted and interpreted.

I am a Dutch student, currently completing a bachelor’s degree in Geography, Planning and Environment at Radboud University. My academic focus has been on sustainability, and I approach this topic from a policy-oriented perspective. I have not lived in Aotearoa New Zealand, nor do I have direct personal or cultural ties to Māori communities. This places me in the role of an outsider to the

Indigenous knowledge systems and governance practices explored in this thesis. Which proposes both limitations as new interpretations.

My interest in the role of mātauranga Māori in freshwater governance arises from a broader academic curiosity about the limitations of dominant Western scientific paradigms. I was drawn to this topic because it offers an opportunity to explore alternative epistemologies that are relational, place-based, and spiritually grounded, and that are important and valid ways of knowing the world. In this sense, the research is not only an analysis of policy and governance, but also a reflection on how sustainability can be more inclusively and justly conceptualized.

That said, I am conscious of the asymmetries of power and knowledge involved in studying Indigenous issues from a European context. While this research aims to highlight and support Indigenous perspectives, I recognize the limitations of doing so without direct engagement. I attempted to conduct interviews with Māori actors and governance stakeholders to complement the document analysis, but received no responses despite contacting more than 30 individuals. This lack of access underscores my external position and the broader challenges of establishing trust and reciprocity as a distant researcher.

These constraints have shaped the study's reliance on policy documents, legal texts, iwi management plans, and scholarly literature. While these sources offer valuable insights, they cannot fully substitute for the lived experiences and situated knowledge held by Māori communities. Throughout the analysis, I have tried to approach these materials with humility, caution, and respect, avoiding assumptions and drawing where possible on interpretations grounded in Indigenous-authored texts.

This thesis does not claim to speak for Māori. Rather, it seeks to amplify and critically engage with existing expressions of Indigenous environmental thought within the governance structures of Aotearoa New Zealand. It aims to examine how mātauranga Māori is positioned, represented, or constrained within these systems, always with the awareness that, as a non-Indigenous researcher, my interpretations are limited by both cultural distance and epistemological boundaries. My goal is to contribute to broader academic conversations about epistemic justice and the structural inclusion of Indigenous knowledge in sustainability governance, while remaining mindful of my own standpoint within those debates.

### 3.5 Audiovisual analysis

In the absence of interview data, this study incorporates publicly available audiovisual materials as an alternative qualitative data source. To ensure diversity and depth, three distinct types of audiovisual content were selected: an interview with an iwi leader, a short documentary produced by the New Zealand government on freshwater policy, and an iwi-produced educational video. Together, these sources offer varied yet complementary insights into Māori perspectives on freshwater governance, providing valuable empirical material to analyse in lieu of direct stakeholder engagement.

The interview with the iwi leader was transcribed and coded through the same coding process as other secondary sources. To analyse the two audiovisual materials, the study applies an embodiment and materialization framework, drawing on Hedenus (2016). This approach focuses on how bodies, gestures, language, and objects are portrayed in audiovisual media. Embodiment refers to the way human presence and cultural identity are performed visually and aurally, while materialization considers how landscapes, water bodies, clothing, symbols, and settings are used to express deeper epistemological meanings.

This analytical strategy is supported by recent methodological developments in qualitative research that emphasize the interpretive and effective power of audiovisual media. Borish et al. (2021) argue that video, when used critically, can surface cultural insights not easily accessible through written texts, particularly in Indigenous research contexts. Similarly, Pink (2015) highlights how visual ethnography captures everyday practices and symbolic meaning through multi-sensory, situated analysis, thereby enhancing the depth and validity of cultural interpretation.

Videos were selected based on their relevance to the research topic, presence of Indigenous actors or narratives, and availability of clear imagery and spoken content. Examples include public educational videos on Te Mana o te Wai and iwi-produced media. Transcripts of these videos were generated and coded using the same codebook developed for textual materials, allowing for thematic consistency across data types.

This audiovisual dimension broadens the empirical foundation of the study by incorporating visual and auditory representations of Māori worldviews. It supports the thesis's broader aim of examining the symbolic and structural positioning of Indigenous knowledge systems in water governance, beyond what is captured in written policy alone. It also responds methodologically to the challenge of limited access to interview participants, by drawing on publicly articulated narratives that still center Indigenous voice and perspective.

## 4. Influence of indigenous knowledge on water policy in New Zealand

Building on the preceding exploration of how Indigenous knowledge systems have shaped freshwater policy in New Zealand, this chapter presents the empirical analysis of key texts, frameworks and audiovisual material that reveal how mātauranga Māori is represented in contemporary water governance. Guided by the research sub-questions, the analysis draws from a qualitative coding process of legislative documents, iwi management plans, policy reports, and expert commentary. The findings are organized thematically according to four central domains, representation, governance structures, engagement, and influence. Each attributing on the opportunities and limitations for epistemic and political inclusion of Māori perspectives in environmental decision-making.

### 4.1 Representation of indigenous knowledge in policy and practice

The representation of Māori knowledge and worldviews in freshwater governance in Aotearoa New Zealand has expanded in recent decades, yet it remains marked by unevenness. While references to concepts such as kaitiakitanga, whakapapa, and Te Mana o te Wai have become common in policy documents, these inclusions often reflect symbolic gestures rather than meaningful power-sharing or epistemic evolution. Understanding how representation is constructed and limited in these contexts requires attention not only to what is included, but also to how and why certain meanings are privileged over others.

One key pattern that emerges across the data is the use of Māori concepts in national policy frameworks without corresponding authority or decision-making power. A clear example is found in the Our Future Resource Management System discussion materials, which state that “concepts such as kaitiakitanga and mana whakahaere are referenced to express Māori values in freshwater policy” (Ministry for the Environment, 2023, p. 6). However, the document offers no further explanation or legal mechanisms to ensure these values influence decision-making. This type of inclusion reflects a pattern of tokenism, where Māori terms are present to show inclusion of cultural values, yet remain disconnected from institutional authority or real world outcomes. Such practices contribute to the appearance of inclusion without shifting power structures, and ultimately risk devaluing Indigenous voices for legitimacy.

Similar patterns are evident in the Resource Management Act (1991), where Māori perspectives are acknowledged but not substantively empowered. Section 6(e) requires decision-makers to “recognise and provide for the relationship of Māori and their culture and traditions with their ancestral lands, water, sites, waahi tapu, and other taonga” as a matter of national importance. Section 7(a) states that authorities must have “particular regard to kaitiakitanga,” and section 8 mandates that all actions under the Act must “take into account the principles of the Treaty of Waitangi.” Despite this language, the Act lacks mechanisms to enforce these provisions in practice, leaving Māori knowledge as advisory rather than authoritative. As Richardson (2008) argues such recognition often sustains existing power hierarchies by creating the appearance of inclusion without enabling real influence.

These patterns of symbolic inclusion in legislation raises the question of what genuine representation might look like in practice. One answer can be found not just in texts, but in how Māori relationships with water are visually and relationally expressed. In the Te Mana o te Wai video, Dr. Mahina-a-Rangi Baker says, “Te Mana o te Wai, principally, is about lifting the standard for how we care for freshwater... and recognising that first priority being about ensuring the life-supporting capacity of water” (Te Mana o te Wai Transcript, 2023, p. 1). While she speaks, the video shows a river flowing

through a forest, which gives a feeling of life and connection. Later, the camera shows a river meeting the ocean, with children and elders standing nearby (see Figure 2). These images show the link between water and generations of people, highlighting how Māori see water as part of their family history and future responsibilities. This mix of words and visuals shows how Māori knowledge is represented not just in policy language, but in ways that see water as alive and connected to people. It shows that for Māori, representation means being part of the story, not just counted in official terms



**Figure 2: Te Mana o te Wai introduction video**

Furthermore, the dominance of technical and legal language in policy documents further contributes to the marginalisation of relational and spiritual dimensions central to mātauranga Māori. Terms such as mauri and wairua, while occasionally referenced, are often isolated from decision-making logic and buried beneath procedural frameworks. In many of the reviewed documents, the emphasis remains on efficiency, measurable outcomes, and compliance, leaving limited room for holistic or place-based approaches to environmental stewardship. For example, the Our Future Resource Management System discussion paper stresses that “resource management processes must be more efficient and timely. Planning needs to focus on delivery and implementation, with clear roles, responsibilities and outcomes” (Ministry for the Environment, 2023, p. 5). This reproduces a hierarchy in which Māori knowledge must adapt to state and Crown structures rather than reshape them.

References to Treaty obligations appear frequently across both legal texts and iwi planning documents, but their legal and operational status varies. The Waikato River Act 2010 and associated co-governance arrangements represent a significant step toward partnership, recognising mana whakahaere and creating a space for shared authority: “the Crown and Waikato-Tainui are committed to co-management arrangements that reflect Treaty partnership principles” (Waikato River Act, 2010, s.4).

Despite these limitations, there are emerging examples of more substantive integration of Māori worldviews in governance. The Ngāti Hine Mana Whakahono ā Rohe agreement articulates whakapapa, kaitiakitanga, and intergenerational responsibility as guiding principles for engagement with regional councils: “mana whenua will lead the identification of values and aspirations for freshwater in their Rohe” (Ngāti Hine Mana Whakahono ā Rohe Agreement, 2023, p. 3). Similarly, the Ngāti Tūwharetoa Environmental Management Plan (2003) embeds spiritual and genealogical

connections to water as foundational to its planning vision: "Water is a taonga handed down from our ancestors, it connects us through time and space" (Ngāti Tūwharetoa, 2003, p. 6).

However, the framework of representation remains incomplete if it overlooks the experiences of urban Māori and those not affiliated with iwi structures. Most policy mechanisms for Māori engagement, including Mana Whakahono ā Rohe and iwi management plans, assume Indigenous authority as the default representative form. This risks excluding significant portions of the Māori population, particularly those living in urban areas or disconnected from hapū.

Finally, the co-occurrence and absence of certain themes across the dataset reveal important insights into how representation functions in practice. The combination of Te Mana o te Wai framing with tokenistic representation signals a pattern where culturally significant language is used to legitimise existing governance systems without redistributing power. Conversely, documents that combine whakapapa-based reasoning with substantive integration indicate moments of epistemic inclusion where Māori values inform not only discourse but also structure. The absence of co-occurring codes such as Treaty obligations and legal pluralism in mainstream legislation reflects a missed opportunity for deeper partnership. These patterns suggest that while representation is increasing, it often stops short of the structural changes needed for genuine epistemic justice and environmental pluralism.

## 4.2 Governance structures

Governance structures determine how environmental authority is distributed and how decisions are made. In the context of freshwater management in Aotearoa New Zealand, these structures are crucial to understanding both the potential and the limitations of Indigenous authority. The findings in this section are based on policy frameworks, iwi plans, and legal agreements. They reveal key tensions between symbolic recognition and actual power-sharing, highlighting how structural settings reproduce policy outcomes.

Co-governance arrangements have become more common in recent decades. The Waikato River Authority, established under the Waikato River Act (2010) is a prominent part of understanding governance structures. While it represents a significant step towards power sharing, final authority often remains with the Crown. The Act allows for co-chairing and iwi representation, but decisions must "align with overarching government objectives and require ministerial approval" (Waikato River Act, 2010, s. 22). This points to structural power asymmetry. Likewise, regional councils may consult iwi, but their plans are not legally bound to reflect iwi positions. As one report notes, "although the co-management model represents a significant step toward partnership, the legal authority ultimately remains with the Crown, and Māori values, while acknowledged, are not determinative in decision-making" (Harmsworth et al., 2016, p. 4).

The Ngāti Hine Mana Whakahono ā Rohe agreement (2023) illustrates the limits of legally plural engagement. Although it includes principles like mana whakahaere and tikanga, the agreement states that "decisions remain subject to council processes and approvals" (Ngāti Hine Mana Whakahono ā Rohe, 2023, p. 3). This demonstrates that even well-intentioned frameworks often lack enforceability, relying on goodwill rather than legal obligation. This reflects the code pairing of legal pluralism respected with crown-dominated model, where Indigenous legal principles are acknowledged but not structurally empowered.

The Ngāti Tūwharetoa Environmental Management Plan (2003) expresses a more autonomous vision of governance. It states that "Ngāti Tūwharetoa will continue to exercise its customary responsibilities

over the environment" (Ngāti Tūwharetoa IEMP, 2003, p. 5). This includes environmental goals grounded in whakapapa, kaitiakitanga, and mauri. Yet, despite its strength in vision, the plan functions primarily as a consultative document within statutory processes, limiting its ability to drive binding outcomes.

Internal tensions within Māori governance are also evident. The Freshwater report (2022) notes that "Post-Settlement Governance Entities (PSGEs) sometimes centralise power in ways that exclude local hapū and ahi kā" (Freshwater, 2022, p. 7). This calls attention to representational complexity within iwi structures. It cautions against treating Māori governance as monolithic and underscores the importance of legitimacy in delegated authority.

Catchment-scale planning is promoted in recent reforms. Documents like Our Future Resource Management System (MfE, 2023) support aligning governance with ecological boundaries. However, local bodies frequently report "lack of capacity to implement" and "need for funding support" (MfE, 2023, p. 9). Thus, while the catchment model is widely accepted in principle, practical barriers remain substantial.

Finally, many freshwater governance systems remain anchored in Crown-centric models. The Resource Management Act (1991) and its Māori participation provisions (Ministry for the Environment, 2017) describe Māori interests as matters to be "considered" rather than upheld (RMA Māori Provisions, 2017, p. 2). This shows the endurance of Western science and administrative priorities, even as Māori language and principles become more common in policy. As a result, participation does not always translate into authority, and governance structures often reflect the Crown's institutional logic more than Indigenous self-determination.

### 4.3 Engagement

Engagement is a key indicator of how Māori are included not just in policy language, but in the practical processes of environmental governance. Where representation signals presence, and governance defines authority, engagement shapes the quality and depth of the interaction. Effective engagement requires not only participation, but also responsiveness, respect for Māori values, and space for shared decision-making. The findings discussed here explore how engagement with Māori unfolds across policy frameworks, iwi agreements, legislative documents, and audiovisual material.

Government-led engagement processes most commonly involve formal consultation, where Māori are invited to comment on policies or planning documents but are rarely given the opportunity to co-design or co-decide. The Freshwater report (2022) documents widespread frustration among Māori stakeholders: "We keep getting asked, but nothing really changes. That's not real engagement" (p. 4). Similarly, the Resource Management Act (1991) requires consultation but provides no guarantee that Māori input will shape decisions. The Our Future Resource Management System discussion materials (MfE, 2023) describe Māori perspectives as valuable but offer no mechanisms to ensure their uptake. As the document states, "The proposed new legislation would provide greater recognition of Te Ao Māori, including mātauranga Māori... However, the need to rationalise and modernise the legal framework remains the overarching priority" (Ministry for the Environment, 2023). This indicates that structural reform goals often take priority over commitments to Indigenous epistemologies. Across these documents, the co-occurrence of codes such as advisory role only, formal consultation, and power asymmetry point to an engagement model that maintains institutional control within the state.

In addition to structural limitations, Māori communities face procedural and resource barriers that constrain their capacity to engage. The Ngāti Hine Mana Whakahono ā Rohe agreement (2023) explains that “inadequate funding and timeframes limit our ability to participate effectively” (p. 2). These limitations are echoed in the Mana Whakahono ā Rohe Guide (2023), which warns that “consultation fatigue is real” and that repeated shallow engagement undermines long-term relationships (p. 5).

Some government documents justify streamlined engagement by citing environmental urgency. The Ministry for the Environment (2023) notes, “to address freshwater degradation rapidly, consultation processes must be pragmatic” (p. 8). While urgency is real, it becomes problematic when paired with the absence of procedural justice. This dynamic prioritises efficiency over equity and risks marginalising Māori process norms, echoing patterns seen in governance structures where legal pluralism is recognised but not embedded.

In contrast, iwi- and hapū-led materials promote a relational model of engagement. The Ngāti Tūwharetoa Environmental Management Plan (2003) describes manaakitanga, whakapapa, and collective responsibility as “central to our engagement with others” (p. 7). This is not just a value statement but is operationalised through practices such as hui and wānanga. These culturally grounded forms of engagement reflect a different paradigm, with codes such as relational accountability, kaupapa Māori engagement, and ahi kā referenced appearing together.

Visual material reinforces the differences between procedural inclusion and meaningful, place-based engagement. In the Te Mana o te Wai video, Dr. Mahina-a-Rangi Baker states, “it’s only by properly engaging iwi and hapū at the catchment scale that you can really interpret and express those values” (Te Mana o te Wai Transcript, 2023, p. 1). As she speaks, the video shows rivers from above and Māori families gathered at the water’s edge. These scenes do not simply illustrate policy ideas but reveal a worldview in which connection to water is lived and enacted through everyday presence. The visual pairing of her words with landscapes and people underscores the message that true engagement is relational, not abstract. It is about restoring balance through connection, not merely responding to consultation requests.

One of the clearest visual moments appears in Figure 3, where a Māori man is seen fishing quietly by a riverbank. This simple act, performed with care and calm, expresses kaitiakitanga in practice. The nearby vehicle suggests familiarity and belonging, not surveillance or visitation. The scene materialises governance not as distant management, but as a responsibility grounded in whenua and whakapapa. Such moments show that Māori engagement is not dependent on being named in official processes. It is expressed through daily acts of stewardship, kinship, and presence. These visual representations affirm that Indigenous authority lives in practice, not just in texts, and highlight the need for water governance structures to recognise these lived forms of leadership.



**Figure 3: Te mana o te wai fishing scene**

Although some state documents use terms like co-design or participatory planning, these references are often superficial. The Te Mana o te Wai Statement Guidance (2023), The Te Mana o te Wai statement guidance (2023), for example, mentions participatory governance but offers no detail on how Māori values or processes will shape outcomes. The document states that “Water Services Entities are required to give effect to Te Mana o te Wai through their strategic and operational planning and reflect this in their response to Te Mana o te Wai statements submitted by mana whenua” (Ministry for the Environment, 2023, p. 12), but it provides no further guidance on how this should occur in practice. This creates a gap between rhetorical commitment and concrete implementation, suggesting that while participatory language is used, the actual mechanisms to ensure Māori values influence outcomes are not specified.

Engagement practices reflect broader tensions in the governance of freshwater in Aotearoa New Zealand. Structural power dynamics, procedural constraints, and cultural mismatches shape the space available for Māori participation. While iwi-led documents model a different approach, engagement remains dominated by state priorities and settler institutional logics. Addressing these challenges requires a shift from consultation to shared authority, and from procedural inclusion to genuine partnership.

## 4.4 Influence

Influence in the context of Māori knowledge systems and freshwater governance refers to the extent to which Indigenous epistemologies actively shape policy, decision-making, and environmental outcomes. While previous sections examined representation, governance structures, and engagement, this chapter explores how these domains converge to enable transformative impact. Empirical evidence reveals that although references to Māori values have expanded, their actual influence remains fragmented, often symbolic, and bound within Crown institutional logic.

Across policy documents, Māori concepts such as mauri, manaakitanga, and kaitiakitanga are increasingly included. For instance, the Te Mana o te Wai Statement Guidance (2023) states, "The concept of Te Mana o te Wai reinforces the holistic nature of Māori relationships with freshwater and the importance of upholding the health and wellbeing of water before other uses" (p. 3). However, their inclusion is frequently superficial, serving more as cultural signaling than as a shift in decision-making authority. In the Freshwater report (2022), several contributors express concern that Māori language is used "as a cultural gloss over what is essentially the same Western scientific framing of water issues" (p. 12). This supports earlier findings on tokenistic representation and symbolic engagement discussed in Chapters 4.1 and 4.3.

Some frameworks attempt to integrate Māori and Western knowledge systems through hybrid models. Policy Brief 7 (2022) proposes that "Māori indicators be considered alongside biophysical indicators to reflect a holistic approach to freshwater health" (p. 4). Similarly, the Ngāti Tūwharetoa Environmental Management Plan (2003) emphasizes that "environmental wellbeing is inseparable from whakapapa and the intergenerational duty to care for the taonga of water" (p. 6). These examples demonstrate potential for co-productive knowledge systems. However, as the Our Future Resource Management System discussion document notes, such efforts often "lack institutional embedding and consistency across regional frameworks" (Ministry for the Environment, 2023, p. 5), meaning their influence is often limited to consultative or pilot stages rather than becoming entrenched policy norms. However, as Our Future Resource Management System (Ministry for the Environment, 2023, p. 5) notes, such efforts often lack institutional embedding and are treated as optional add-ons rather than central mandates. The influence of these frameworks is thus limited by legal precarity and inconsistent uptake across regions.

Iwi-led planning documents like the Ngāti Hine Mana Whakahono ā Rohe (2024) articulate governance through spiritual and ethical terms such as wairua, whakapapa, and mana whakahaere framing engagement as an intergenerational duty rather than an administrative task. These relational models contrast with Crown-led mechanisms, where Māori input remains advisory. The lack of enforceability of these iwi agreements reinforces the asymmetry explored in Chapter 4.2, where legal pluralism is respected rhetorically but not structurally empowered.

A critical arena where influence is contested is environmental monitoring. While documents like the Te Mana o te Wai Statement Guidance (2023) acknowledge Māori-led indicators, implementation is inconsistent. Who defines and measures environmental wellbeing remains contested. Tikanga-based monitoring methods are rarely given legal standing, revealing enduring barriers to Indigenous authority in environmental assessment.

This marginalisation is also visually evident in audiovisual data. In the Te Mana o te Wai video, while Māori concepts are articulated verbally, the visual focus often returns to institutional settings and officials in suits, suggesting that even as Indigenous values are acknowledged, decision-making power remains with the Crown. Conversely, the iwi-produced documentary shows elders and tamariki interacting with rivers, embodying concepts like kaitiakitanga through everyday practice. This audiovisual embodiment affirms Māori ways of knowing not just as frameworks, but as living, enacted governance practices rooted in place and kinship. Yet such representations are mostly absent from formal state-led materials, further limiting the systemic influence of these worldviews.

Finally, while national reform documents like Our Future Resource Management System (Ministry for the Environment, 2023) acknowledge historical harm and distributional injustice, they fall short of proposing binding frameworks for redress. For instance, the document notes that "past approaches to resource management have contributed to poor environmental outcomes and inequities for

Māori" (p. 6), yet it does not articulate clear structural changes to address this. Iwi submissions often raise themes of recognition justice and historical trauma, but these are rarely integrated into final policy outcomes. Influence, therefore, is not simply a matter of visibility but of structural agency and institutional receptivity.

This chapter concludes that while Indigenous knowledge is increasingly referenced in freshwater discourse, its ability to shape outcomes is constrained by legal, institutional, and procedural barriers. Influence manifests through revitalisation, ethical models, and hybrid practices, yet these are often conditional and fragmented. Achieving epistemic justice will require deeper changes in legal recognition, monitoring authority, and institutional willingness to center tikanga as a legitimate and sovereign governance system.

## 5. Discussion

This chapter examines the broader significance of the empirical findings by identifying key patterns, tensions, and implications that emerge across the four analytical themes. It moves beyond individual cases to reflect on what these patterns reveal about the relationship between Indigenous knowledge and water governance structures in Aotearoa New Zealand. This discussion considers how the findings relate to the guiding theoretical concepts of epistemic justice, decolonisation, and legal pluralism, and assesses the value and limitations of the initial conceptual model. The chapter concludes with a critical reflection on methodology and positionality, and outlines implications for both policy and future research.

### 5.1 Interpretation of results

The findings across the four analytical domains (representation, governance, engagement, and influence) point to a recurring pattern in how Māori voices are included in freshwater governance in Aotearoa New Zealand. While references to Māori concepts have become more common in policy documents and legal frameworks, this visibility does not necessarily translate into structural authority or influence. Instead, a pattern emerges in which Māori knowledge is symbolically recognised but remains institutionally marginal. This suggests that inclusion is often shaped by state-led priorities and legal norms, rather than grounded in Indigenous values or decision-making models.

Representation is the clearest area where this symbolic pattern is visible. Concepts like *kaitiakitanga*, *mana whakahaere*, and *Te Mana o te Wai* are increasingly included in official documents. However, the way these terms are used often reflects surface-level inclusion. They are mentioned, but rarely explained in full or tied to enforceable commitments. This creates a situation where Māori values are acknowledged in language, but not in structure. One example is the Resource Management Act, where Māori relationships with freshwater are listed as a matter of national importance, yet there are few legal mechanisms to uphold Māori authority over water. Similarly, audiovisual materials like the *Te Mana o te Wai* video show a much deeper understanding of Māori relationships with water, grounded in lived experience and intergenerational responsibility. This contrast between text and image highlights how Māori ways of knowing are often represented more fully outside formal state channels.

In governance structures, this symbolic pattern continues. While some co-governance models have created space for *iwi* representation, final decision-making power often remains with the Crown. The Waikato River Authority shows how co-management can reflect partnership principles in theory, but still rely on ministerial approval in practice. This reinforces a structural hierarchy in which Indigenous authority is conditional. Even *iwi* management plans that strongly express autonomy, such as the Ngāti Tūwharetoa Environmental Management Plan, still operate within consultation-based models that do not guarantee implementation. This reveals how governance structures, while more inclusive than in the past, still tend to reproduce Crown authority as the dominant framework.

Engagement processes reflect similar limitations. Māori are often invited to participate in environmental planning, but this participation tends to occur through formal consultation rather than shared design or decision-making. *Iwi* and *hapū* have repeatedly voiced concern that their input is not meaningfully taken up. Some government documents justify streamlined engagement by pointing to the urgency of environmental challenges. Yet this framing can sideline Māori process norms, which emphasize relationship-building and long-term responsibility. By contrast, *iwi*-led materials describe engagement as grounded in *whakapapa*, collective care, and everyday presence. Scenes in the *Te Mana o te Wai* video, such as a man fishing quietly by a river, show how Māori authority is expressed

through practice rather than institutional roles. These moments suggest that meaningful engagement is relational, not procedural.

When looking at influence, it becomes clear how these patterns connect. Although Māori concepts are now part of environmental discourse, they often do not shape policy outcomes in a consistent or sustained way. Frameworks that include Māori indicators or spiritual values are frequently limited to specific regions or pilot programs. Their influence remains tied to local agreements or goodwill, rather than being embedded in national policy. Even when iwi submit formal statements or environmental plans, there is no guarantee they will be acted on. This creates a form of conditional influence, where Māori knowledge may inform planning, but rarely defines it.

Together, the findings suggest that freshwater governance in Aotearoa is moving toward greater recognition of Māori perspectives, but this recognition is often partial and fragmented. While there are promising examples of more grounded and relational approaches, these remain exceptions within a broader system still dominated by Crown-led frameworks. The widespread use of Māori concepts without corresponding shifts in power or process raises important questions about what kind of inclusion is taking place, and for whom it is meaningful. These questions will be explored further in the next section, which revisits the theoretical framework and conceptual model in light of the findings.

## 5.2 Revisiting Theory

This chapter reflects on how the theoretical ideas used in this research hold up when tested against the empirical findings. The original framework helped structure the analysis, but as the results developed, certain assumptions and limitations became more visible. This chapter does not treat theory as a fixed truth but instead explores how well the concepts applied in this thesis actually explain the lived complexities of freshwater governance in Aotearoa New Zealand. In doing so, it highlights what parts of the framework proved useful, what needed adjustment, and how a new conceptual model can better reflect the findings.

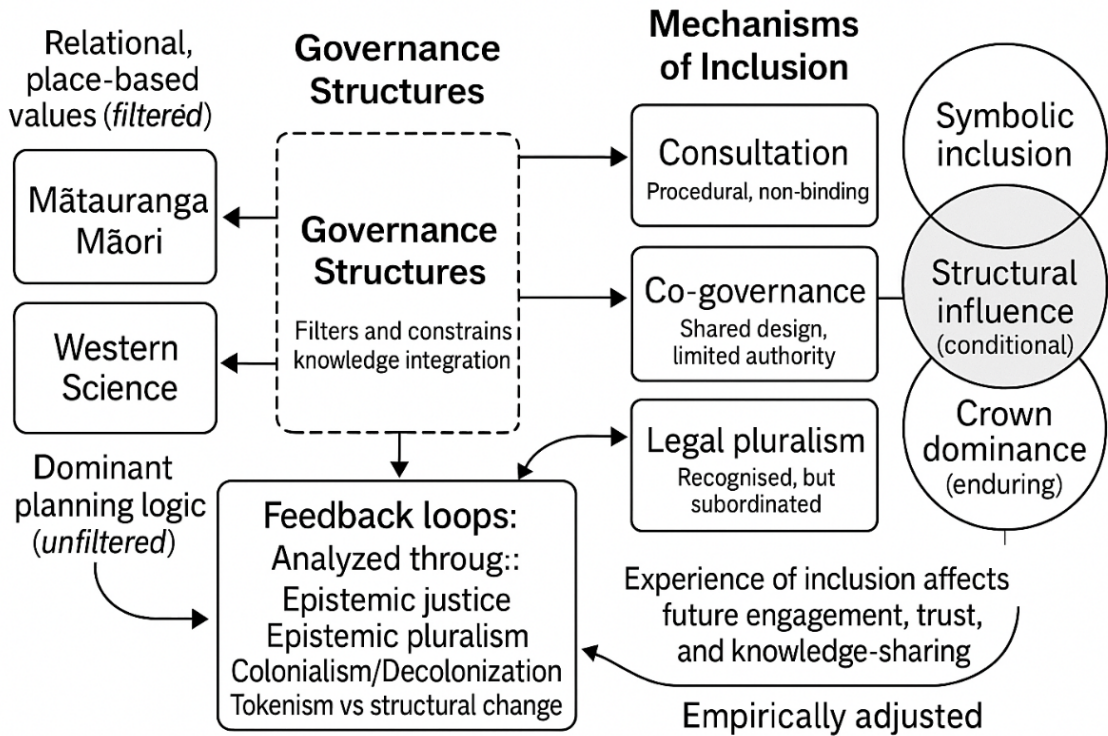
At the core of this thesis were three main theoretical lenses: epistemic justice, legal pluralism, and decolonisation. These helped to frame the inquiry into how Māori knowledge is represented, engaged with, and given (or denied) influence in water policy. The idea of epistemic justice was particularly helpful in naming the ways Māori perspectives are often present in language but not in authority. Fricker's (2007) distinction helped make sense of situations where Māori were asked to participate but not genuinely listened to, or where Māori concepts like *mauri* or *kaitiakitanga* were used without fully engaging their deeper meaning. However, the data also showed a need to move beyond this framework. Symbolic inclusion did not always stem from misunderstanding it was sometimes a strategic choice. Concepts like *Te Mana o te Wai* were deployed in ways that legitimised existing structures rather than challenging them. This highlights a limitation in the theory: epistemic injustice is not just about exclusion or misrecognition, but also about how selective inclusion can be used to maintain control.

Legal pluralism also offered valuable language to describe the coexistence of different normative systems, such as Māori legal traditions and Crown institutions. In the policy space, this was most visible in agreements like *Mana Whakahono ā Rohe* and iwi environmental plans. These mechanisms reflect an acknowledgment of Māori authority and values, yet the findings consistently showed that such recognition is bounded. Māori frameworks are welcomed when they can align with state logic, but rarely when they demand institutional change. The assumption in legal pluralism literature that

recognition itself is a progressive step is challenged by the findings in this thesis. Recognition, without binding force, does little to alter decision-making power. The way Māori law is referenced without structural support or enforceability demonstrates that pluralism is often constrained by a default to Crown authority. What is recognised, and how, remains controlled by the state.

The third theoretical pillar, decolonisation, was perhaps the most powerful in terms of critique, but also the most difficult to operationalise. Decolonial thought pushes beyond inclusion and asks what it would mean to restructure relationships entirely. In the findings, this was reflected in iwi documents that spoke from their own tikanga. However, these documents still had to engage with Crown processes to have any policy impact. While decolonial theory clarified what is lacking in state-led inclusion, it offered fewer tools for tracing how these absences unfolded in practice. Its strength lies in identifying the problem, not necessarily in describing the steps toward resolution within existing governance frameworks.

These reflections made it necessary to rethink the original conceptual model. The initial version suggested a linear pathway: Māori and Western knowledge informing governance structures, which then operated through mechanisms like consultation or co-governance, producing different outcomes. However, this framing did not reflect the messiness of the data. Often, symbolic inclusion and Crown dominance occurred simultaneously. Māori knowledge entered policy frameworks, but its form was shaped and filtered by institutional expectations. Governance structures were not neutral channels, as the original model implied, but active sites of selection and control. They filtered mātauranga Māori through a lens that often prioritised Western planning logics and managerial efficiency.



**Figure 4: Revised Conceptual model**

Figure 4 presents the revised model. It addresses the asymmetries found in the analysis. It shows governance structures not as passive mediators, but as filters that constrain how Māori and Western knowledge enter the system. The three mechanisms of inclusion: consultation, co-governance, and

legal pluralism. Are still present, but they are now annotated with what the findings revealed: consultation is often procedural and non-binding, co-governance may involve shared design but rarely shared authority, and legal pluralism remains structurally subordinated. These mechanisms feed into a new outcomes area, which no longer follows a single vertical scale. Instead, symbolic inclusion, structural influence (conditional), and Crown dominance (enduring) are shown as overlapping realities. This better captures how inclusion can be both genuine and limited.

The revised model also introduces feedback loops. These reflect a key insight from the findings: the experience of inclusion shapes future willingness to engage. When Māori actors encounter tokenistic processes, trust is eroded, and long-term relational governance becomes harder to build. This is not just a theoretical insight but a practical one. The sustainability of governance depends on more than structures. It depends on the quality of relationships and the space for lived knowledge to be carried forward with integrity.

In sum, the original theoretical framework provided helpful starting points, but the data required adaptation and rethinking. Epistemic justice, legal pluralism, and decolonisation remain central, but their limitations became clearer in practice. The revised conceptual model builds on this learning. It visualises a more dynamic, layered understanding of freshwater governance in Aotearoa.

### 5.3 Critical reflection on Research

This section reflects on the research process, acknowledging its limitations while also considering what the choices made during the project have made visible, and what they may have obscured. Rather than simply revisiting design elements, the aim here is to critically assess the strengths, tensions, and blind spots of the study as it unfolded.

One of the central sides of this research was the decision to focus exclusively on textual and visual material. While this approach allowed for close engagement with policy documents, iwi environmental plans, and official media such as the Te Mana o te Wai video, it inevitably constrained the types of knowledge that could be accessed. Māori perspectives were mostly encountered in mediated, institutionalised form through state policy or formal iwi submissions. This meant that more situated and personal voices, especially from Māori communities outside formal iwi structures, were largely absent. Although the analysis could still trace patterns of symbolic inclusion and conditional influence, it could not fully capture how these dynamics are experienced on the ground.

The coding process was also shaped by interpretation. Themes like tokenism, legal pluralism, and epistemic justice provided helpful analytical lenses, but they also directed attention in certain ways. While the use of theory made it possible to surface subtle power dynamics and questions superficial inclusion, it may have reduced space for unexpected meanings to emerge. For example, documents that carried strong emotional tone or cultural richness sometimes had to be coded within fixed conceptual categories. This is not to say these materials were misrepresented, but that the research framework brought its own filters.

One of the tensions that emerged during analysis was the uneven quality of the source material. While some iwi documents and statements were deeply expressive of spiritual and relational worldviews, others had to conform to state templates in order to be heard and therefore coded. This made it difficult at times to determine whether gaps in representation were due to constraint or strategic choice. In hindsight, closer engagement with Indigenous-authored literature or community

published material might have helped to better understand this in-between space where values are present, but their form is shaped by institutional expectations.

The research also navigated a delicate balance between critique and fairness. It would have been easy to frame all state practices as extractive or all Māori inclusion as tokenistic. Yet the findings pointed to a more complex reality. Some policy documents genuinely attempted to create space for Māori values, even if the structures around them fell short. Some iwi documents used the language of state policy strategically, blending it with tikanga to speak in multiple registers at once. Recognising this complexity was important, but it also required careful judgement about how to interpret intent and whose voice was being amplified in each text.

In terms of scope, the study focused on national policy documents and selected iwi plans, mostly from well-established tribal entities. As a result, the research could not speak to the full diversity of Māori governance perspectives in Aotearoa. Urban Māori, smaller hapū, and activist voices were largely outside the frame. This is a limitation, particularly when discussing representation and inclusion. However, it also reflects the structural conditions of policy engagement, where certain Māori organisations are resourced and positioned to participate, while others remain on the margins.

Another limitation relates to timing. Because some of the policies analysed, such as those relating to Te Mana o te Wai statements, are still being implemented, the research could only examine how these mechanisms are framed, not how they will function in practice. Future research could build on this work by tracing how such frameworks play out over time, and whether they lead to more durable forms of shared authority.

Finally, this thesis has raised questions about how research itself participates in the systems it critiques. While this study did not involve interviews or community engagement, it still draws on and interprets Māori knowledge systems. Care was taken to do so respectfully, by working from publicly available materials, citing Indigenous scholars, and avoiding instrumentalization. But reflection remains important here: the fact that knowledge was interpreted through an academic framework, presented in English, and evaluated within a university system shapes what could be said, and how. A more collaborative or co-produced study might have allowed for different forms of understanding, beyond the analytical lens used here.

Despite these limitations, the research has offered insight into how institutional structures shape the inclusion of Indigenous knowledge, not only through what they make visible, but also through how they define the terms of recognition. The findings do not speak for Māori, nor claim authority over their worldviews. Instead, they offer a lens into how knowledge is governed, translated, and sometimes constrained within the context of environmental policy. This reflection reinforces the importance of staying attentive to method, structure, and voice, not only in policy, but also in research itself.

## 5.4 Implications and Recommendations

This section draws out the main implications of the findings and offers a set of recommendations to inform future directions in policy, institutional design, and Māori-Crown engagement. Rather than repeating earlier points, the focus here is on identifying what changes are needed to move from symbolic inclusion to structural justice in freshwater governance.

One key implication is that current governance structures continue to reproduce a pattern of consultation without shared authority. While Māori concepts are increasingly referenced in

environmental policy, decision-making power remains anchored within Crown institutions. If freshwater governance is to reflect genuine partnership, it must go beyond recognition and embed co-decision-making mechanisms that give effect to Māori authority in a binding way. This is particularly urgent at the catchment level, where decisions have the most direct impact on local waterways and communities.

Another implication concerns the nature of engagement between Māori and the state. The findings suggest that participation often takes place on terms set by Crown institutions, shaped by administrative logics and timelines that do not align with Māori values. As long as engagement remains procedural and time-bound, the possibility of building trust and long-term relational governance will remain limited. Future efforts must prioritise Māori-led engagement processes that reflect principles such as whakapapa, manaakitanga, and intergenerational responsibility.

A further insight is that knowledge integration is not neutral. When mātauranga Māori is expected to fit within state policy frameworks without shaping them in return, the result is often symbolic inclusion rather than epistemic parity. Achieving balance will require policy processes to accommodate relational and spiritual dimensions of environmental knowledge. This means moving away from models that treat mātauranga as a cultural supplement and toward frameworks that see it as a foundation for environmental governance in its own right.

To support these shifts, several concrete changes are recommended. Legal mechanisms should be developed to ensure that Māori have binding co-decision-making roles in water governance, particularly in areas where co-governance already exists in name but not in effect. Funding models must also change to support iwi and hapū-led planning and monitoring, recognising the labour and time required to maintain meaningful engagement. Environmental monitoring frameworks should be adapted to include tikanga-based indicators, ensuring that Māori values are not only recognised but operationalised. In addition, training programs for Crown officials should be introduced to deepen understanding of Māori governance values and reduce institutional resistance to alternative knowledge systems. Finally, there is a need for feedback mechanisms that allow Māori communities to evaluate how their values are reflected in policy outcomes, and to revise their role in governance over time.

These recommendations are not exhaustive, but they reflect recurring patterns across the case material. They point toward a more just and responsive water governance system. One that recognises not only the right of Māori to be included but also the need for institutions to change in ways that allow Māori values and authority to genuinely shape outcomes.

## 6. Conclusion

This thesis set out to investigate how Indigenous knowledge, particularly mātauranga Māori, is represented and integrated within freshwater governance in Aotearoa New Zealand. The findings indicate that while references to Māori values have become more prominent in environmental policy, the depth and structural influence of these inclusions remain limited. Māori concepts are frequently stated in ways that signal cultural awareness, yet they often do not shift the underlying power dynamics or institutional logics that shape water governance. Instead, symbolic gestures of inclusion persist, embedded within frameworks that continue to privilege Crown authority and settler-state priorities.

The sub-questions helped unpack this broader conclusion. The analysis of policy texts, iwi plans, and audiovisual material revealed that representation of Māori knowledge often operates through selective referencing. Concepts like kaitiakitanga or Te Mana o te Wai appear frequently, but typically without meaningful authority attached to their interpretation or application. Governance structures continue to reflect a Crown-dominated model, where co-management initiatives remain exceptional and subject to ministerial oversight. Engagement, while formally encouraged, tends to be constrained by procedural norms that favour consultation over collaboration. Influence, as the final dimension, remains the most conditionally evident in pockets of progress but largely fragmented and dependent on institutional goodwill.

Together, these dimensions point to a core insight: Indigenous knowledge is increasingly acknowledged but only rarely allowed to shape outcomes on its own terms. Rather than forming the basis for rethinking governance, mātauranga Māori is often treated as a cultural supplement to existing frameworks. This pattern illustrates a deeper problem of epistemic containment, where the space for Indigenous worldviews is expanded in language but not in practice.

Theoretically, this study contributes to critical understandings of legal pluralism and co-governance. It shows that recognition alone is insufficient for achieving epistemic justice. While literature often presents hybrid governance as a promising model, this thesis suggests that hybridity must be assessed not only in terms of form but also in terms of power and agency. The revised conceptual model (Figure 4) illustrates this shift. By explicitly placing the Crown-dominated model as a structural force shaping the boundaries of representation, engagement, and influence, the model reframes epistemic inclusion as a conditional process, rather than a linear achievement.

Beyond academic contribution, the findings hold societal relevance. As Aotearoa continues to reform its environmental governance systems, questions about equity, partnership, and knowledge justice remain central. This thesis suggests that for real change to occur, policy frameworks must go beyond referencing Māori values and begin to share authority in ways that recognise Māori governance as legitimate and self-determined. This requires not only legal innovation but also institutional willingness to be transformed by Indigenous ways of knowing and being.

Of course, this research has limitations. Its reliance on publicly available documents and audiovisual sources means that the lived experience of Māori communities could not be directly represented. The study focused on how knowledge is represented and mediated in institutional forms, not on how it is practiced or experienced at the local level. Future research could build on this by tracing how new co-governance arrangements function in practice or by exploring Māori-led environmental initiatives that exist outside of Crown-aligned frameworks.

Ultimately, this thesis has argued that the inclusion of Indigenous knowledge in water governance is not just a question of policy language but of institutional transformation. Genuine partnership will require more than frameworks that symbolically include Māori perspectives. It will demand structures that centre relational accountability, uphold mana whakahaere, and allow for different worldviews to lead, not just participate. Whether current reforms will rise to this challenge remains to be seen, but it is clear that the future of just water governance in Aotearoa depends on it.

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## 8. Appendices

### 8.1 Glossary of Terms

**Ahi kā**, The principle of occupation and continuous connection to ancestral land and waterways, often referenced to establish mana whenua (customary authority).

**Co-governance**, Governance arrangements in which decision-making authority is shared between Māori (iwi or hapū) and Crown/state institutions.

**Colonialism**, The historical and ongoing process of Indigenous dispossession, marginalisation, and imposition of colonial power and legal systems.

**Decolonization**, The process of dismantling colonial structures and restoring Indigenous authority, knowledge systems, and relationships with land and water.

**Epistemic injustice**, The structural exclusion or devaluation of certain knowledge systems, often leading to the marginalisation of Indigenous perspectives (Fricker, 2007).

**Epistemic pluralism**, The principle that multiple ways of knowing can coexist and contribute meaningfully to governance and environmental decision-making.

**Hapū**, Sub-tribes within iwi, often holding primary authority over specific areas and waterways.

**Iwi**, Large kinship groupings or tribes, composed of related hapū, that engage with the Crown and other institutions in governance processes.

**Kaitiakitanga**, A relational ethic of environmental guardianship and care, based on whakapapa and responsibilities to future generations.

**Legal pluralism**, The coexistence of multiple legal systems within the same society, including state law and Māori customary law (tikanga Māori).

**Māori**, The Indigenous people of Aotearoa New Zealand.

**Mana whenua**, Customary authority over land and water, based on whakapapa and ahi kā.

**Manaakitanga**, The ethic of care, hospitality, and mutual respect, applied both in interpersonal relationships and environmental governance.

**Mātauranga Māori**, The holistic Māori knowledge system encompassing cultural, environmental, spiritual, and genealogical knowledge and practices.

**Mauri**, The life force or vital essence present in all living and non-living things, reflecting ecological and spiritual well-being.

**Positionality**, The researcher's social and epistemological standpoint and its influence on the production of knowledge.

**Relational ontology**, A worldview in which relationships between humans, land, water, and spiritual entities are central to understanding the world.

**Tapu**, The sacredness or spiritual restriction placed on certain people, places, or objects, shaping interactions with the environment.

**Te Mana o te Wai**, A principle in New Zealand freshwater policy that prioritises the health and well-being of water above human use.

**Te Tiriti o Waitangi**, The Treaty of Waitangi (1840), the foundational agreement between Māori and the British Crown, affirming Māori rights and tino rangatiratanga.

**Tikanga Māori**, Māori customary practices, values, and legal principles.

**Tino rangatiratanga**, Māori self-determination and authority over lands, waters, and resources.

**Tokenism**, The superficial or symbolic inclusion of Indigenous knowledge or actors without granting them meaningful influence in decision-making.

**Wairua**, The spiritual dimension or spirit, often referenced in relation to the health of water bodies and ecosystems.

**Whakapapa**, Genealogy; the web of relationships connecting humans to the land, water, and all other beings in the natural world.

**Whānau**, Extended family; also an important unit of social organisation in Māori society.

**Whenua**, Land; also used to signify the deep cultural and spiritual relationships Māori hold with land.

## 8.2 Codebook

Code	Code Group 1	Code Group 2	Code Group 3	Code Group 4	Code Group 5
Advisory role only	Engagement				
Ahi kā referenced	Engagement				
Barriers to engagement	Engagement				
Building collaborative relationships					
Capacity funding requested		Governance Structures			
Catchment-scale logic		Governance Structures			
Co-governance structure		Governance Structures			
Colonial legacy noted					Representation
Colonialism			In vivo codes		
Complexity acknowledged					
Conflict avoidance		Governance Structures			
Consultation fatigue	Engagement				
Crown-dominated model		Governance Structures			
Cultural indicators used				Influence	
Decision making proces					
Decolonial reference					Representation
Delayed implementation		Governance Structures			
Dispute over authority		Governance Structures			
Distributional justice				Influence	
Empowerment of Maori decision making					
engagement opportunities					
Environmental harm noted				Influence	
environmental pollution					
Environmental urgency emphasized	Engagement				
Equity language used	Engagement				
Formal consultation	Engagement				
Framing - Discourse					

Hapu inclusion					
Historical trauma mentioned				Influence	
Hopeful reform framing					Representation
Imported annotation					
indigenous environmental ethics					
Innovative hybrid models				Influence	
intent			In vivo codes		
Iwi-led governance		Governance Structures			
Kaitiakitanga acknowledged					Representation
Kaupapa Māori engagement	Engagement				
Knowledge-driven decisions				Influence	
Lack of legal mandate		Governance Structures			
Legal pluralism respected		Governance Structures			
Mana whakahaere supported		Governance Structures			
Mana whenua referenced					Representation
Manaakitanga acknowledged				Influence	
Mātauranga Māori mentioned					Representation
Monitoring responsibility questioned				Influence	
Negotiated participation frameworks					
Oral history referenced				Influence	
Participatory governance	Engagement				
Participatory governance challenges					
Performance indicators					
Policy shaped by values				Influence	
Power asymmetry		Governance Structures			
Procedural justice	Engagement				
PSGE critique		Governance Structures			
Recognition justice				Influence	
Recognition of Maori worldviews					

Regression of Maori rights					
Relational accountability	Engagement				
Representation ambiguity					Representation
Representation of all iwi and hapu					
Representation of Maori					
Revitalization of mātauranga				Influence	
Spiritual elements invoked					Representation
Spiritual justice elements				Influence	
State convenience logic	Engagement				
State-led framing dominates					Representation
Substantive integration					Representation
Te Ao Māori principles stated					Representation
Te Mana o te Wai framing					Representation
Technical language critique					Representation
Tikanga vs state conflict				Influence	
Time - recent					
Tino rangatiratanga asserted		Governance Structures			
Tokenism					Representation
Treaty obligations cited					Representation
Urban Māori exclusion					Representation
Wairua invoked					
Wānanga-based process	Engagement				
Western science dominance		Governance Structures			
Western scientific paradigm					
Whakapapa-based reasoning					Representation

### 8.3 List of documents used as data source

Document Title	Author/Source	Year	Type	Link (if public)
Resource Management Act	Government of New Zealand	1991	Legislation	<a href="https://www.legislation.govt.nz/act/public/1991/0069/latest/DLM230265.html">https://www.legislation.govt.nz/act/public/1991/0069/latest/DLM230265.html</a>
Waikato River Act	Government of New Zealand	2010	Legislation	<a href="https://www.legislation.govt.nz/act/public/2010/0024/latest/DLM1440313.html">https://www.legislation.govt.nz/act/public/2010/0024/latest/DLM1440313.html</a>
Ngāti Tūwharetoa Iwi Environmental Management Plan	Ngāti Tūwharetoa	2003	IEMP	
Mana Whakahono ā Rohe Agreement	Ngāti Hine & Northland Regional Council	2024	Agreement	
Policy Brief 7: Using Māori Values to Inform Freshwater	Te Tira Whakamātaki	2022	Policy Brief	<a href="https://www.tetirawahakamātaki.org.nz">https://www.tetirawahakamātaki.org.nz</a>
Our Future Resource Management System: Materials for Discussion	Ministry for the Environment	2023	Policy Document	<a href="https://environment.govt.nz">https://environment.govt.nz</a>
Te Mana o te Wai Statement Guidance	Ministry for the Environment	2023	Policy Guidance	<a href="https://environment.govt.nz">https://environment.govt.nz</a>
RMA Māori Provisions Excerpt	Ministry for the Environment	n.d.	Policy Document	
Fact Sheet 3: Changes to Māori Participation in the RMA	Ministry for the Environment	2017	Policy Document	<a href="https://environment.govt.nz">https://environment.govt.nz</a>
Freshwater	Māori Freshwater Forum	2022	Report	
Treaty-Kawharu	Kawharu, M. (Ed.)	n.d.	Treaty Commentary	
Te Puni Kōkiri Māori Council RMA Engagement Report	Te Puni Kōkiri	2006	Government Report	
Ngāti Hine Mana Whakahono ā Rohe Guide	Ministry for the Environment	2023	Policy Guide	<a href="https://environment.govt.nz">https://environment.govt.nz</a>
Te Mana o te Wai Introduction Video	Ministry for the Environment / Department of	2023	Audiovisual (Public Education Video)	<a href="https://www.taumataarowai.govt.nz/for-the-water-sector/te-mana-o-te-wai/">https://www.taumataarowai.govt.nz/for-the-water-sector/te-mana-o-te-wai/</a>

	Internal Affairs (via Taumata Arowai)			
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