

**How can multicultural communities be engaged effectively in
the process of setting long-term visions for freshwater?
A case study of the ethnic Chinese community, Ōtautahi,
Christchurch**

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by
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The National Policy Statement for Freshwater Management 2020 (NPS-FM) introduced *Te Mana o te Wai* (loosely translated as the vital importance of water), which requires councils to engage with communities and tangata whenua in any decision-making processes relating to water. It is important for local authorities such as Environment Canterbury (ECan) to engage with a diversity of cultures. According to census data, people of Asian ethnicity make up about 15% of the total New Zealand population, of which the ethnic Chinese group makes up the largest proportion. Previous research indicates that ethnic Chinese people in Christchurch are willing to be involved in environmental planning, but that there are barriers to their participation, such as lack of local environmental and political knowledge. This study aims to: (1) explore the meaning of *Te Mana o te Wai* to ethnic Chinese living in Christchurch; (2) identify and evaluate effective ways of engaging with ethnic Chinese in developing long-term visions for freshwater management; and (3) review existing documents for best-practice engagement with the ethnic Chinese group. Data was collected during July and August 2022. The researcher collected 151 anonymous survey responses (67 responses from the in-person approach and 84 responses collected online through social media channels). Ten semi-structured interviews were also conducted, comprising five participants from central and local government and five local Chinese community leaders. This study's findings suggest that most Chinese had not heard of *Te Mana o te Wai*, but that most wanted to participate in decision-making processes around environmental planning or water management. This study highlights some barriers not previously identified in research, such as cultural differences and lack of capability and capacity for local authorities. The study

concludes with recommendations to help the regional council improve ethnic Chinese participation in decision-making processes in order to achieve more inclusivity and collaboration with diverse ethnic groups in New Zealand.

Keywords: public engagement, participation, freshwater management, ethnic Chinese community, New Zealand, multi-ethnic participation

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Abbreviations

CCC: Christchurch City Council

CMS: Christchurch Multicultural Strategy

CWMS: Canterbury Water Management Strategy

ECan: Environment Canterbury Regional Council

GWP: Global Water Partnership

IAP2: International Association of Public Participation

ICP: Intercultural City Project

IWRM: Integrated Water Resources Management

NPS: National Policy Statement

NPS-FM: National Policy Statement for Freshwater Management

MEC: Ministry for Ethnic Communities

MfE: Ministry for the Environment

RMA: Resource Management Act 1991

ZC: Zone Committee

ZIP: Zone Implementation Programme

Chapter 1

Introduction

1.1 Research background

In New Zealand, the Resource Management Act (RMA) 1991 is the primary legislation that sets out how people should manage the environment (Ministry for the Environment, 2022). Section 5 of the RMA 1991 states its purpose “to promote the sustainable management of natural and physical resources”. National Policy Statements (NPS) under RMA 1991 are designed to provide a way for central government to set objectives and policies for matters of national significance in relation to environment management and planning (Environment Guide, 2021). The National Policy Statement for Freshwater Management (NPS-FM) is one of the NPS under the RMA 1991 and sets out the objectives and policies for freshwater management in New Zealand (Ministry for the Environment, 2020). Moreover, it supports improved freshwater management in New Zealand by driving national consistency in local RMA planning and decision-making (Ministry for the Environment, 2020). The NPS-FM is underpinned by Te Mana o te Wai (loosely translated as ‘the well-being of water’), which has a hierarchy of obligations. According to 1.3 (5) of the NPS-FM, it says “first, the health and well-being of water bodies and freshwater ecosystems; second, the health needs of people; third, the ability of people and communities to provide for their social, economic and cultural well-being, now and in the future” (Ministry for the Environment, 2020, p.6).

In Part 3 of NPS-FM 2020, Clause 3.2 Te Mana o te Wai sets the requirement for councils to “engage with communities and tangata whenua to determine how Te Mana o te Wai applies to water bodies and freshwater ecosystems in the region” (Ministry for the Environment, 2020, p.11). Clause 3.3 states that long-term visions for freshwater as an objective in regional policy statements. Clause 3.3 (2) sets out “long-term visions identify a timeframe to achieve those goals that are both ambitious and reasonable” (Ministry for the Environment, 2020, p.12). Moreover, Clause 3.3 (3) (a) describes “every long-term vision must be developed through engagement with communities and tangata whenua about their long-term wishes for the water bodies and freshwater ecosystems in the region” (Ministry for the Environment, 2020, p.12).

This is a significant process for regional and unitary councils to undertake and will require adequate long-term resourcing. However, councils are currently struggling to prioritise the implementation of a range of national policy statements and environmental standards (Kirk et al., 2020). This makes it important to identify how efficiently and effectively councils are engaging with a cross-section of the community, in particular with large ethnic groupings that comprise the New Zealand population. The Canterbury Mayoral Forum initiated the Canterbury Water Management Strategy (CWMS) in 2009 and set a vision for regional water resource management focused around enabling communities “to gain the greatest social, economic, recreational and cultural benefits from our water resources within an environmentally sustainable framework” (Canterbury Water, 2009, p.6). Ten water management zones were established in Canterbury to implement the CWMS (Canterbury Water, 2009). Each Zone Committee (ZC) comprises a mixture of community representatives and elected councillors appointed from ECan and Ngāi Tahu Rūnanga (Salmon, 2012). Different community representatives are better able to reflect the diversity and values of communities across a zone. In addition, ZC members are required to collaborate with each other to identify community values in their zone and prepare a Zone Implementation Programme (ZIP) (Canterbury Water, 2009). The ZIP is a key tool for achieving the objectives and targets of the CWMS, and identifies the priority issues and actions specific to that zone (Canterbury Water, 2009).

Involving people with different cultural backgrounds in the decision-making process is important, especially in New Zealand. For example, the RMA allows a distinctive tangata whenua voice in decision-making and the central government set NPS-FM 2017 to recognise Te Mana o te Wai: “the innate relationship between the health and well-being of the water and the wider environment and their ability to support each other while sustaining the health and well-being of people” (Te Aho, 2019, p.1617).

From a global perspective, few parts of the world are entirely homogeneous; most consist of different community groups, which leads to ethnic diversity (Wood & Landry, 2008). New Zealand is more multicultural than we think in many fields (Wood & Landry, 2008). This country has acknowledged that many opportunities have been squandered in the past due to the lack of awareness of the connections between diversity, creativity and learning (Wood & Landry, 2008). New Zealand is a multicultural country: according to the 2018 Census by Statistics NZ, 70.2% of the total New Zealand population comprised European ethnic groups.

Māori and Asian ethnic groups occupied 16.5% and 15.1% of the total population, respectively (Stats NZ, 2018). Furthermore, the Chinese ethnic group comprises the largest proportion of the Asian group (Stats NZ, 2018). Previous research (Wang, 2019) showed that ethnic Chinese people living in Christchurch generally expressed a willingness to be involved in environmental planning. However, there were some barriers to their participation, such as language, knowledge and cultural barriers, which made effective engagement processes difficult (Wang, 2019). In addition, ethnic Chinese people may feel unsafe providing suggestions or opinions because they may be met by racism. These fears may be founded, as news coverage recently reported that campaign advertising boards of several candidates of Chinese descent in local Auckland elections had been broken by racially-motivated vandals (RNZ, 2022). People were then concerned that these racist attacks would discourage future ethnic candidates (RNZ, 2022). Indeed, over the past three years police officials say that 8,246 hate-motivated offences have been recorded in New Zealand (RNZ, 2022). One newspaper article talked about the stereotype that Chinese girls do not like running (Kidson, 2022), but the fact were contrary to the facts. The perpetuation of such stereotypes may lead people to think that ethnic Chinese people living in Christchurch do not want to participate in any decision-making processes.

My study will focus on ethnic Chinese people's participation in decision-making processes in freshwater management in Christchurch. To do this, it is first important to know how water is understood in Chinese culture. Different ethnic groups also have unique relationships to the environment that are important to understand when long-term visions for freshwater are being formulated. For example, in Chinese culture water plays an important role in the customs of life for the Chinese people (Yang, 1993). Water culture (the way people use and understand water resources) emphasises harmony between man and nature; it means respecting nature and the water environment (Zhang and Dong, 2021). In order to meet growing water demands, Chinese people have explored ways to use and control water throughout history (Zhang and Dong, 2021). 'Fengshui', which literally means wind and water, asserts that the location for a house or a town can influence fortune, which shows that Chinese people love and depend on water in Chinese culture (Yang, 1993). In addition, the Yellow River is the cradle of Chinese civilisation; Chinese culture reflects the civilisation's lack of maritime interests and instead shows how the Chinese people have focused their attention on inland rivers and lakes (Yang, 1993). Long-term visions for freshwater are also likely to be important to the ethnic Chinese group as they can combine their historical

understanding of water and provide useful feedback in new settings, such as raising water issues they are concerned with currently, engaging in decision-making processes in terms of planning and any other water-related issues.

1.2 Research aim, objectives and the study's significance

1.2.1 Aim and objectives

In this study, the overall aim is to contribute to the best practice for engagement with diverse ethnic groups to help achieve the NPS-FM requirement for setting long-term visions. The following objectives will be addressed:

1. Explore what Te Mana o te Wai means to ethnic Chinese people living in Christchurch.
2. Identify and evaluate ways of engaging with ethnic Chinese people that could be effective for regional councils in developing long-term visions for freshwater management within each Zone Committee area.
3. Review existing Environment Canterbury (ECan) practices with respect to best practice for engagement with the ethnic Chinese community on the NPS-FM and for other important environmental issues.

1.2.2 The study's significance

The contribution of this study includes:

- The different understandings of Te Mana o te Wai for ethnic Chinese people living in Christchurch.
- The identification of barriers or obstacles for ethnic Chinese people's participation or engagement in water planning and management in decision-making processes.
- The provision of a range of potential solutions for ECan to improve participation or engagement practices with the ethnic Chinese community.

1.3 Thesis structure

The thesis is divided into seven chapters as follows:

Chapter 1. Introduction: This chapter introduces the general research interest and background of the study. The research aim, objectives and study significance are provided.

Chapter 2. Literature: The theoretical background of public participation in both international and New Zealand contexts.

Chapter 3. Methodology: This chapter explains the research methods and reasoning for the chosen data collection methods (surveys, semi-structured interviews and review of existing policy and planning documents). This chapter also describes how data will be analysed.

Chapter 4. Survey result: This chapter presents the findings of the survey from ethnic Chinese participants.

Chapter 5. Interview result: This chapter presents the results of the semi-structured interviews and reviews relevant policy and planning documents.

Chapter 6. Discussion: This chapter discusses the results within the framework of the key research questions.

Chapter 7. Conclusion: This chapter concludes the key findings of this research. The study's limitations and suggestions for future research are also presented.

Chapter 2

Literature Review

Introduction

This chapter reviews the literature on public participation, collaborative water governance in New Zealand and engagement with multi-ethnic communities in collaborative decision-making. The first section of this chapter will examine the concept, importance, effectiveness, evaluation and barriers of public participation in decision-making processes in general. The second section deals with water governance in New Zealand and regional council current practices around engagement. The third section presents the findings of engagement with multi-ethnic communities in collaborative decision-making processes from both international and New Zealand literature in any context and freshwater management.

2.1 Public participation and collaboration in decision-making in environmental management

2.1.1 Concepts of participation and engagement

There are many studies that define public participation. For example, Rowe & Frewer (2005, p. 253) defined public participation as “the practice of involving the public in the decision-making and policy-forming activities of organisations responsible for policy development”. Similarly, Sowman (1994) described public participation as the concern of the public that may reach policy and decision makers. This provides adequate opportunity for the public to voice their opinions (Sowman, 1994). Reed (2008) thought that public participation means individuals, groups and organisations choosing to take an active role in making decisions that affect them. In other words, “public participation is that those who are affected by a decision have a right to be involved in the decision-making process, and public participation will influence the decision” (IAP2, 2015, p.10). In addition, dialogues take place through information exchange, which may involve representatives of the public and opinions can be transformed through dialogue and negotiation (Reeves, 2004; Rowe & Frewer, 2005). Sowman (1994) and Reed et al. (2018) added that public participation involves the exchange of information between the public and decision-makers throughout the planning process. This two-way communication process integrates the views of the public into the decision-making processes.

In some cases, the public are passive recipients of information from central and local governments. For instance, Arnstein's ladder (Figure 2.1) outlined the continuum of approaches for citizen participation in the planning process (Arnstein, 1969; Contreras, 2019). The bottom two rungs of the ladder describe levels of 'non-participation', which recognise the public as the passive recipients of information from central and local governments. In other cases, the central and local governments seek public opinion through questionnaires. For example, rungs 3 and 4 progress to levels of 'tokenism' that allow the public or citizens to hear and to have a voice. Rung 5 is higher-level tokenism (Arnstein, 1969). In still other cases, public representatives participate in the decision-making process, such as through representation on advisory committees (Rowe & Frewer, 2005). Citizens have more decision-making power in the process in the higher up of the ladder (Arnstein, 1969). Empowering citizens or stakeholders fosters 'ownership' of decisions, builds trust between all parties and can reduce conflict as well (Ricart et al., 2019). 'Participation' implies a degree of citizen power according to the ladder. The Arnstein ladder model has been applied in a wide variety of contexts around the world (Contreras, 2019). This model will be used in the current research to show what level the ethnic Chinese community are currently at in decision making progresses.

On the other hand, Cornwall (2008) believed that Arnstein's approach sees the citizen on the receiving end of projects or programmes and therefore looks at participation from the perspective of those on the receiving end (Cornwall, 2008). According to Arnstein's ladder, citizen participation is ultimately about power and control (Arnstein, 1969; Cornwall, 2008). Likewise, Sowman (1994) thought the ultimate goal of public participation may be the transfer of some decision-making powers to the public. Moreover, Arnstein did not provide specific methodologies for each rung of the ladder or for the measurement of the level of involvement. The method therefore has limitations for evaluating the quality assessments of participation (Laurian & Shaw, 2009; Contreras, 2019). Despite the limitation of Arnstein's ladder, it is the most widely-recognised approach to understanding participation (Choguill, 1996; Contreras, 2019; Cornwall, 2008).



Figure 2.1. Arnstein's ladder of citizen participation (Arnstein, 1969)

Another model of public participation, the Spectrum of Public Participation (Figure 2.2), has emerged in recent years. It was developed by the International Association of Public Participation (IAP2) to help clarify the role of the public in planning and decision-making, as well as the extent to which the public or community can influence planning or decision-making processes (Ross et al., 2016; Stuart, 2017).

IAP2 identified five levels of public participation (Figure 2.2) and shows the different levels of influence in engagement (IAP2, 2015; Nelimarkka et al., 2014). The level of influence depends on the community or stakeholder's role in the engagement (IAP2, 2015). To be more specific, from left to right on the spectrum shows the increasing impact on the decision; that is, the further to the right, the more influence the community has over decisions (Nelimarkka et al., 2014; Stuart, 2017). The 'inform' level for example, the first level of public participation only involves a one-way flow of information, is not really community engagement (Stuart, 2017), although it does assist in public understanding of the issue (Nelimarkka et al., 2014). On the other hand, the 'empower' level sees final decision-making in the hands of the public, where the community makes a decision through a process

(Stuart, 2017) and participants offer decisions and implement them in practice (Nelimarkka et al., 2014).



Figure 2.2. Spectrum of public participation (Stuart, 2017)

The Spectrum is one of the best attempts to classify levels of community engagement (Stuart, 2017). Though the five levels shown in Figure 2.2 are only part of the picture, it is a useful tool for planning and community engagement (Nelimarkka et al., 2014; Stuart, 2017). In this research, the spectrum provides a framework in which to understand and situate where ethnic Chinese people may have been involved or wish to be involved in the NPS-FM, specifically in the setting of long-term visions for freshwater.

In the ladder, 'informing' is a form of engagement, although Arnstein labels this as tokenistic from a citizen participation and power perspective. CCC defines public engagement as "a term to describe the process of establishing relationships, and seeking information from the community to inform and assist decision-making" (Christchurch City Council, 2019, p.5). CCC also defines consultation as "a subset of engagement, a formal process where people can present their views to the Council on a specific decision or matter that is proposed and made public" (Christchurch City Council, 2019, p.5). Therefore, CCC uses 'engagement' as an umbrella term: engagement may be sought in the phases of planning, implementation and evaluation in the main management phases, as well as policy development (Conallin et al., 2017). However, NPS-FM uses the term 'engagement' without a clear definition of the word.

Public engagement ensures the public or stakeholder who will be affected by decisions will be informed sufficiently and have input into changes in governance resulting from the recommendations (Perry et al., 2020). Similarly, Conallin et al. (2017) thought that stakeholder engagement was important to address and continually readdress conflict. Furthermore, fairness would be increased if diverse groups engaged in the development of components of environmental decision-making processes (Perry et al., 2020; Reed 2008). Reed et al. (2018) thought that existing typologies tended to characterise the mode of engagement in three ways: firstly, bottom-up and top-down engagement. As for the former, it is a mode that is initiated or led by the citizen or public with limited decision-making power; the latter is initiated or led by those who have power and wish to empower interested parties to contribute towards decisions (Fraser et al., 2006). Second, different motivations and outcomes drive different engagement (Reed et al., 2018). For example, motivations can be pragmatic, normative or to enhance trust (Reed et al., 2018). Pragmatic motives always link to the pursuit of outcomes for the decisions in which public and stakeholders are engaged (Reed et al., 2018), while normative motives may target benefits for the individual or group that participate (de Vente et al., 2016; Reed et al., 2018). Thirdly, different modes of engagement can be seen as lying along a continuum of information or knowledge exchange from publics and stakeholders (Reed et al., 2018).

In the Quality Assurance Standard (IAP2, 2015) the terms 'public participation' and 'community or stakeholder engagement' are interchangeable. However, these are different terms and should not be used interchangeably in planning or water management.

In this thesis, public participation is used as an umbrella term for the general public. Under participation are collaboration, engagement, consultation and informing. In contrast, the Māori group as treaty partners use the term 'co-governance' and 'partnership'. Some definitions will be listed at the end of this section in Table 2.4.

2.1.2 Importance of public participation

Many studies have highlighted the importance of public participation in policy-making processes. For example, citizen participation in the policy process brings about positive social and environmental change (Irvin & Stansbury, 2004). More participants bring a more diverse range of perspectives and social understanding, which leads to better policy decisions and better social and environmental outcomes (Irvin & Stansbury, 2004; Sowman, 1994).

Moreover, the public may also bring valuable information and a deep understanding of complex problems, new ideas or creative solutions (Carr, 2015; Conallin et al. 2017; Perry et al., 2020; Sowman, 1994). Sowman (1994) added that public participation directly impinges upon one's life and develops a sense of self-worth, responsibility and empowerment. Fenemor et al. (2011) found that the level of satisfaction with planning processes was correlated with the level of the various stakeholder groups.

Irvin & Stansbury (2004) described ideal conditions for citizen participation, including the careful selection of stakeholder representations, transparent decision-making processes, regular meetings and adequate financial resources for long-term learning and decision-making processes (Irvin & Stansbury, 2004). Moreover, Irvin & Stansbury (2004) also mentioned low-cost indicators (such as whether participants can easily reach meetings and citizens readily volunteering for the project, as long as the project is beneficial for the community) and high-benefit indicators (such as community representation with strong influence, credibility between the group facilitator and all representatives) as ideal conditions for citizen participation (Irvin & Stansbury, 2004).

Citizens are involved in governance processes in many countries (Irvin & Stansbury, 2004). Based on Irvin and Stansbury's research, Table 2.1 and Table 2.2 below shows the advantages and disadvantages of citizen participation in government decision-making, respectively. Both advantages and disadvantages of citizen participation imply the importance of public participation in decision-making processes and outcomes. They thought that participation processes could be a "transformative tool for social change. In addition, citizen involvement is intended to produce better decisions, and thus more efficiency benefits to the rest of society" (Irvin & Stansbury, 2004, p. 56). Hence, while assessing the success of the citizen involvement process, there are two tiers of benefits to take into account (decision processes and outcomes) and two beneficiaries (the government and citizen participants) (Irvin & Stansbury, 2004).

Table 2.1. Advantages of citizen participation in government decision-making (Irvin & Stansbury, 2004)



Table 2.2. Disadvantages of citizen participation in government decision-making (Irvin & Stansbury, 2004)



2.1.3 Effectiveness of engagement and participatory processes

Reed et al. (2018) outlined four steps for determining whether stakeholder and public engagement will work or not: context, design, power and scalar fit. To be more specific, contextual factors may affect the success of an engagement process, since the outcomes of engagement are affected by cultural, socio-economic and institutional contexts (Reed et al.,

2018). Therefore, an understanding of the local context is necessary to determine the appropriate engagement approach in terms of effective engagement (Reed et al., 2018). Second, design factors can provide systematic representations between relevant public and stakeholder interests and transparent opportunities to influence engagement outcomes (Irvin & Stansbury, 2004; Reed et al., 2018). The power factor, especially for power dynamics, also affects the success of engagement; poor power dynamics management is a major reason for engagement failure to deliver outcomes and the failure can be dealt with using professional facilitation and mediation between participants (Reed et al., 2018). Hence, power dynamics in the engagement design process should be effectively managed so that all participants can contribute knowledge and influence outcomes (Reed et al., 2018). Solving environmental problems is difficult when there is no single blueprint for how to succeed by using collaborative approaches (Bodin, 2017). Bodin (2017, p.2) defined collaborative learning as:

A collective action approach where processes that involve sharing experiences and engaging in collective deliberation are in focus. Addressing complex problems is benefited by the coming together of actors with different educational backgrounds, roles and occupations; therefore, a strong tendency of similar actors flocking together in isolated subgroups could be detrimental.

This implies that it is important for multi-cultural communities to ensure that sub-groups are well-facilitated and well-connected to the other sub-groups in decision-making processes. Collaborative learning could be an effective way for multi-cultural community engagement and local organisations could apply this method in practice.

Dawodu et al. (2021) found that the quality of the process of participation can be improved by identifying the relevant stakeholder(s) and ensuring their equal representation. This reminds us of the need for public agencies to develop inclusive processes that reflect the multicultural nature of their communities. Reeves (2004) agreed and added other principles for organisations to improve participation such as using accessible language, committing to giving feedback and showing how public comments and ideas have been taken on board.

Table 2.3 below identifies the techniques and tools that can deliver effective participation. Reeves (2004) described what participation should do and best practice approaches. Some of the ideas here are relevant to this research. For example, issues and ideal end states

might be identified through interviews, questionnaires and surveys, while community events and workshops could help to build consensus.

Table 2.3. Best practice participation approaches (Reeves, 2004)



The Department of Conservation (2011) set out nine evaluation criteria for public participation in their consultation processes (Figure 2.3). To ensure that the public's opinions and values are exposed, representation requires that all relevant stakeholder groups/treaty partners are involved and have a voice in the decision-making process. Second, public participation has an impact on the decision. Timeliness includes allowing the public to monitor the timeliness and realise how the process is going. The types of forums likely to be effective can be decided upon by participants, who could co-design how to go about setting long-term visions for freshwater. Purpose and decision-making include transparency in the process so that the public can see what is going on and how decisions are being made. Early involvement means that public involvement must continue throughout the whole process. Effective forums are needed as the way for officials to give and receive information. The enabling process enables effective participation for all parties by providing equal and balanced opportunities. Finally, from feedback participants can know how their input has affected the decision.

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Figure 2.3. Evaluation criteria for effective participation (Department of Conservation, 2011)

2.1.4 Public participation barriers or obstacles

There are many barriers or obstacles to public participation in planning or water management. For example, some research shows that public participation is time-consuming for both the organisation and the public (Carr, 2005; Irvin & Stansbury, 2004; Hallström et al., 2019; Reeves, 2004). There are language barriers for countries that consist of different ethnic groups. Language barriers are a hindrance to successful participation (Hallström et al., 2019; Kirschke et al., 2016). Ianniello et al (2019) pointed out three sets of potential obstacles of public participation: “contextual factors, such as information deficit, the attitude of public officials; organisational arrangement, in particular community representation criteria and process design; process management patterns, including collaboration quality” (Ianniello et al., 2019 p.34). In fact, participation processes typically emphasise collaboration rather than comprehension, which makes it challenging to understand the rationale behind the demands of each stakeholder (Ricart et al., 2019). Hence, it is crucial for policymakers to acquire the skills to create and conduct effective

participation processes with more prevalent and more complex participatory and collaborative decision-making tools (Ricart et al., 2019).

Villada-Canela et al. (2009) suggested that inconsistency in individuals' characteristics (such as gender, age, lack of participants' motivation, lack of trust in government and other stakeholders and scepticism that authorities would consider different points of view to their own) could be obstacles to effective public participation in water management. In addition, the effectiveness of participation will be diminished if there is a lack of motivation and trust. For example, a delay or absence of a response from authorities as well as a lack of transparency in decision-making may affect people's trust put in the government and lead to demotivation in participants (Reeves, 2004; Sinner et al. 2015). In this regard, strong support from authorities can lead to the effective participation (Villada-Canela et al., 2019).

Water management is characterised by complex interactions between stakeholders and partners, environmental characteristics and how political and economic tendencies converge (Villada-Canela et al., 2019). However, it is insufficient to solely rely on scientific and technical contributions. Therefore, participation from affected and interested stakeholders can improve the quality of water management decisions and enhance outcomes (Villada-Canela et al., 2019). However, some professionals argue that participation is not necessary because they believe that communities lack the necessary expertise, that they often get in the way (Reeves, 2004) and that collaboration might limit the effectiveness of participation (Reeves, 2004). Professionals also feel threatened by the shift of control to the public (Reeves, 2004). The people involved do not represent the majority, but are rather those members of the public who represent special interests (Reeves, 2004). Many of the barriers mentioned here might also apply to the ethnic Chinese group. In other words, some barriers here impede ethnic Chinese engagement in decision-making processes. For example, Wang (2019) found cultural and language barriers existed in her study, which will be discussed later in the context of my results.

Multiculturalism or cultural diversity can also bring some barriers for various ethnic groups to be involved in planning or water management because different ethnic people have different backgrounds (Njoh, 2002). These barriers can include some members of the project's beneficiary communities either tending to exclude themselves or being excluded from the participation process. It is also necessary to be mindful that the voices of self-appointed individuals can be erroneously perceived as reflecting the views and perspectives

of the larger community or society, which Njoh (2002) describes as selective participation. Next, the size of the population is an important part of determining the level of participation in the decision-making process (Njoh, 2002). Population size may enhance or inhibit community participation: the larger the community, the more positive their impact will have on participation. On the other hand, a smaller community may mean less contribution (Njoh, 2002). Hence, there might be a challenge in Christchurch as to how different ethnic groups may be engaged and whether ECan should focus on the most populous groups (e.g. constituting over 5 or 10% of the population) for specific consultation, such as with ethnic Chinese, or treat everyone (except Māori, who are Treaty partners) the same.

In this section, I have reviewed the literature around public participation in general, mainly focusing on concepts, importance, effectiveness, models and evaluation. Now I will consider how these points are relevant in the particular context of water governance in New Zealand, including research around the current practices of regional councils regarding engagement.

Table 2.4. Definition box of key terms used in this thesis

Co-governance: The arrangement for negotiated decision-making between iwi and/or other groups, central government and/or local government, particularly in relation to natural resources (Te Waihora, 2022).

Collaboration: Implementation to be developed collaboratively by local and central central government, Ngāi Tahu as tangata whenua, and stakeholder interest groups, with the general public to be given the opportunity to influence the development of the programmes (Canterbury Water, 2009, p.39).

Co-Management: Joint decision making by the state and communities about one or more aspects of natural resource access or use (Castro, & Nielsen, 2001, p.230).

Consultation: A subset of engagement; a formal process where people can present their views to the Council on a specific decision or matter that is proposed and made public (Christchurch City Council, 2019, p.5).

Engagement: A term used to describe the process of establishing relationships, and seeking information from the community to inform and assist decision making. Engagement is an important part of participatory democracy within which there is a continuum of community involvement (Christchurch City Council, 2019, p.5).

Public participation: A process that involves the public in problem solving or decision making and uses public input to make decisions. It includes all aspects of identifying problems and opportunities, developing alternatives and making decisions. It uses tools and techniques that are common to a number of dispute resolution and communication fields. (Ross et al., 2016, p.123).

2.2 Collaborative water governance in New Zealand

2.2.1 Water governance

The RMA 1991 devolved the responsibility of freshwater management to regional councils which were to newly-created and locally-elected (Memon et al., 2010). In addition, strong central government participation in water resource management was replaced by an institutional framework with the implementation of the RMA (Memon et al., 2010). In New Zealand, agencies (central government agencies and local authorities), laws (RMA), rules (in regulations and regional plans) and practices enact water governance (shown in Figure 2.4) (Fenemor, et al., 2011). The scale ranges from setting national water management priorities to the level of individual properties. Figure 2.4 also provides functional approaches to guide decision-making across those scales (Fenemor, et al., 2011).



Figure 2.4. Conceptual view of water governance in New Zealand (Fenemor, et al., 2011)

The public meeting is a form of stakeholder engagement in New Zealand. The public meeting is one of the forums where the public can discuss proposed development projects and comprehensive planning schemes (McComas, 2001; Vantanen & Marttunen, 2005; Bernstein & Norwood, 2008). Bernstein and Norwood (2008) define 'public meeting' as a setting for various forms of public participation in community matters, including both formal and informal forms with various reasons. Public meetings are recognised as forums for conflict

communication (Bernstein & Norwood, 2008). However, there are some drawbacks to public participation: it can be time-consuming and sometimes expensive (Boholm, 2008; Department of Conservation, 2011). Stakeholder participation requires time and resources and the ability to recognise and address different points of view (Ricart et al., 2019). It also has significant drawbacks if the meeting does not go well, which can entrench positions, make collaboration difficult and cause loss of faith in the agency (Department of Conservation, 2011). Further, public meetings often suffer from low public attendance rates and communication specialists and planners face a difficulty of motivating citizens to participate in planning processes (Bernstein & Norwood, 2008). On the other hand, integration and participation seem to pull in opposite directions in some cases: people can be motivated to participate in a clear, single issue, while water governance seems to invite centralisation because of the complexity of the relationships involved (Ricart et al., 2019).

2.2.2 Regional Council current practice about engagement

With reference to Figure 2.4, NPS-FM is formulated at the national scale and implemented at the regional scale. The background of NPS-FM was introduced in Chapter 1. Kirk et al (2020) highlighted some barriers to the implementation of the NPS-FM. For example, the difficulty of aligning local plans with the updated version of the NPS-FM and meeting other national standards and objectives; lack of staff capacity at the local government level; lack of community knowledge and expertise; the mismatch between local issues and national priorities; and differences between regional councils and unitary authorities.

Next, CWMS belongs to the regional scale. The CWMS is an attempted integrated water management strategy that was developed under the auspices of the Canterbury Mayoral Forum to achieve political collaboration (Jenkins, 2019). The CWMS provides a collaborative framework to help manage multiple demands on water resources, such as managing flows and levels in water bodies and addressing water quality issues in order to gain the greatest benefits from water resource within a sustainable framework (Environment Canterbury, 2021). However, the complexity of the strategy may be a barrier to the public's understanding and awareness of the issues (Salmon, 2012). The CWMS listed ten community outcomes for water across the region and set out processes of community engagement, which included open meetings on how to use and benefit from water. ECan's website states that members of the public are welcome to attend (Environment Canterbury, 2023) facilitated workshops involving public and stakeholders for developing strategic options as

well as public hearings that show stakeholders' points of view on draft strategy (leading to the final strategy document) (Canterbury Water, 2009). Moreover, the strategy not only set out to address water-related issues such as ecosystem health, water use efficiency, drinking water, recreation and environmental limits, but also sought to address kaitiakitanga (loosely translated as stewardship for Māori) (Jenkins, 2019). The CWMS therefore shifted water management from water availability and storage towards the identification of community values such as improved water quality as an example of how strategy can be accepted through the ability of communities to be involved and to influence strategy development (Jenkins, 2019). The predicted outcomes of the CWMS include improving biodiversity and agreements for water use efficiency (Jenkins, 2019).

The CWMS also mentioned collaborative governance. Central government need to work with iwi on a joint programme of effective engagement or collaboration for oversight of New Zealand's freshwater resources (Environment Canterbury, 2021). Collaborative governance is a deliberative process that involves iwi and stakeholder representatives reaching an informed consensus as one approach to greater public participation in the decision-making process (Salmon, 2012; Bodin 2017). Collaborative governance is used in resource management and is important for institutional innovation in New Zealand (Salmon, 2012). It can support a stable strategy for resource management, especially for the governance systems supplemented by traditional public consultation, which struggle to deliver on their own. The rate of new policy uptake for environmental sustainability can be increased through collaborative governance and finally, it may support making a Treaty-based approach politically workable in resource management governance (Salmon, 2012).

Collaborative processes involve constructive dialogue between iwi and stakeholder interests (Jenkins, 2019). Māori representation in zone and regional committees reflects a relationship agreement between the regional council and rūnanga for co-governance in water management (Ngā Papatipu Rūnanga and Environment Canterbury, 2012). In terms of CWMS implementation, one of the three key elements is using a collaborative approach at the local level through 10 zone water committees (Jenkins, 2019). Zone Implementation Programmes (ZIPs) are designed to give effect to strategy targets at the zone level and developed by the zone committee (ZC) to facilitate community engagement (Jenkins, 2019). Each ZC consists of rūnanga (tribal groupings), water and land use authorities and six or seven appointed members of the community (Jenkins, 2019). This research will focus on the

Christchurch/West Melton Zone committee, as this is where the majority of ethnic Chinese people live in Christchurch (see Chapter 3, Section 3.3.2 Participants).

However, some studies criticise ZC outcomes. For example, one report describes the feelings of members of public who engaged in the collaborative planning process with a ZC (Sinner et al. 2015). The public expressed concern that the collaborative process lacked transparency and that there were unequal opportunities for participation between different community groups (Sinner et al., 2015). Second, the lack of accountability results in a disconnect between the ZC members and the public (Thomas, 2014). In one case, the public was uniformly negative about the ZC process, despite the fact that collaborative planning is claimed to build public trust in decision-making (Sinner et al., 2015).

Members of ZCs are obligated to collaborate with each other to recognise community values in their water management area and seek collective agreement to create a non-statutory ZIP (Canterbury Water, 2009). Each ZIP identified the priority issues, outcomes and recommended integrated priority actions to achieve the objectives and targets of the CWMS within their zone towards a balance between social, economic and environmental values related to freshwater (Canterbury Water, 2009). Implementation of the ZIP was to be a key focus for future public meetings of the committee and the Environment Canterbury website was to provide updated information periodically (Environment Canterbury, 2013). One of the priority outcomes was that waterway corridors be provided for multiple recreation, relaxation and amenity uses. The recommendations from the ZIP include to “Implement a collaborative process at a catchment level to involve local community groups in identifying priorities for improving recreational and relaxation opportunities” (Environment Canterbury, 2013, p.24) and “develop and enhance collaboration between community groups and waterway users for waterways with multiple uses that are sometimes in conflict” (Environment Canterbury, 2013, p.24).

2.3 Engagement with multi-ethnic communities in collaborative decision-making

This section is divided into five subsections. To be more specific, 2.3.1 presents the international literature that engages with multi-ethnic communities in decision-making process in any context, such as urban planning and urban design; 2.3.2 narrows down to integrated water resource management that involves multi-ethnic groups. The following three subsections focus on New Zealand literature. Specifically, 2.3.3 focuses on New

Zealand context for multi-ethnic engagement by providing examples of Intercultural City Project and Christchurch Multicultural Strategy; 2.3.4 discusses engagement with tanagta whenua in freshwater management; finally, 2.3.5 explores ethnic Chinese engagement in New Zealand in any context.

2.3.1 International literature

Studies in different countries around the world have pointed out the importance of stakeholder engagement for successful decision-making in general. For example, Abramson et al. (2006) gave an example of urban design in Seattle's Chinatown - International District with multi-ethnic engagement in the United States. In 2002 and 2003, members of the public consisting of different ethnic groups went to workshops and meetings to discuss priorities for capital improvements, open space acquisition and building design guidelines (Abramson et al., 2006). They found that efforts to mobilise the various community members must concentrate on learning about the histories and culturally-specific place identities and attachments of all stakeholders. Planners needed to engage community members on those personal and cultural attachments and identities (Abramson et al., 2006). Engaging in political and social mobilisation can be an effective way for different ethnic groups to address shared concerns and negotiate differences (Abramson et al., 2006). The outcome was fruitful when different ethnic groups engaged in the design and planning process or collective actions to address problems within the district (Abramson et al., 2006).

Gale (2004) talked about Muslim communities engaging in urban planning in Birmingham, United Kingdom. The author highlighted the necessity for engagement with Muslim groups in planning procedures and suggested that it could be effective in redefining the constraints that urban planning imposes (Gale, 2004). Buildings or ethnic architecture such as mosques could be celebrated as signifiers of Birmingham's cultural diversity and add to the richness of the city's fabric as well as its social and economic diversity (Gale, 2004). Beebehaun (2004) added that in the British planning system, targeted consultation tool is used to address systemic racial disadvantage within society for ethnic minority groups. It is important to consider differing policy needs within the development planning process for ethnic minorities. Views and equality will be increased through broadening participation, which includes different ethnic groups (Beebehaun, 2004). Ethnic minority groups play an outsider role because the nation has been constructed as a homogeneous bounded cultural unit (Beebehaun, 2004). In this case, ethnic minority planning officers or community

leaders might relay their thoughts to the planning authorities, because this “leads to attempts to ameliorate effects through inclusion of voices from the borderlands” (Beebehaun, 2004, p.440).

Van der Horst & Ouwehand (2012) studied multicultural planning in urban renewal and housing in Netherlands. They thought ‘good planning’ should involve multi-ethnic urban populations, because multicultural planning could response to the multi-ethnic composition and orientation of the local population (Van der Horst & Ouwehand, 2012).

Storey et al. (2010) thought different ethnic communities need to be given the opportunity to take ownership of program components and re-shaping planning at the local level to achieve planning for social inclusion in Australia. In addition, participation and engagement strengthened communities and the planning process to achieve an inclusive outcome (Storey et al., 2010). Fenster (1996) thought that planning processes should be more open and show more respect for differences; otherwise, they were indirectly and inadvertently engaging in discrimination. confirm

All of the studies discussed here prove the importance of engaging with multi-ethnic groups in any decision-making process in any context worldwide. Three examples showed this: urban design in Seattle’s Chinatown; Muslim communities engaging in urban planning in Birmingham; and multicultural planning in urban renewal and housing in the Netherlands. The next section examines frameworks for different ethnic groups to be involved in the IWRM framework model.

2.3.2 Integrated Water Resource Management (IWRM)

Integrated water resource management (IWRM) was made prominent by the Global Water Partnership (GWP) in 2000 (Mitchell, 2005; Saravanan et al., 2009). The GWP is a global action network with over 3,000 partner organisations in 179 countries, open to all organisations involved in water resource management (GWP, 2000). GWP (2000, p.7) defined IWRM as “a process which promotes the co-ordinated development and management of water, land and related resources, in order to maximise the resultant economic and social welfare in an equitable manner without compromising the sustainability of vital ecosystems.” It is one of the most utilised models in water policy and administration and collaboration through engaging stakeholders to find solutions is one of the crucial components of the IWRM (McCool, 2017). McCool (2017) identified

'collaboration' as a process of negotiation. Additionally, water protection and restoration require efforts from both technical solutions and active engagement of stakeholders, who might consist of different ethnic communities (Pradhananga et al., 2019).

There are two main steps to pre-engagement (preparation that should be done to maximise the chances of success) in IWRM. The first step is to have an internal engagement strategy and integration within the overall management framework (Conallin et al., 2017). Here, organisations have to consider management framework and purpose of engagement, choose an engagement lead and know their boundaries (Conallin et al., 2017). For the second step, organisations have to identify and engage stakeholders using stakeholder mapping/analysis (Conallin et al., 2017). Finally, organisations should decide the levels of engagement through different models such as Arnstein's ladder and IAP2 (Conallin et al., 2017).

There are examples where integrated water resource management and collaboration have failed. For the Klamath River Agreements in the US, the complexity of dynamics between different stakeholders, including First Nations people, farmers, fishermen, advocates of endangered species, two state and multiple federal agencies, made collaboration over resolving water conflicts difficult (McCool, 2018). McCool (2018) summarised four lessons from the failure: (1) stakeholders should be grouped as either endogenous (i.e. at the table negotiating) or exogenous (i.e. not directly involved in the negotiation, but hold power to interfere with implementation); (2) the success of collaboration is a function of the zero-sum nature of the resources (difficult when Klamath is a finite basin without enough water to meet all demands); (3) having all major stakeholders collaborating on a settlement is important (but this was never achieved in the Klamath Basin); and (4) participation could become less agreeable for stakeholders when they realise negotiation is much more of a 'win some, lose some' proposition rather than the 'win/win' solution they anticipated before the negotiation began. One could draw lessons from the failure of this example to achieve successful collaboration.

Pradhananga et al. (2019) highlighted that some ethnic groups such as people of colour are often affected by water problems and frequently under-represented in water-related programming or decision-making. In the Pradhananga et al. (2019) study, community members of colour described the lack of representation in community decision-making processes as a significant constraint to their engagement. However, they showed strong

motivation to becoming engaged and wanted their voices represented in community decision-making because they did not want to be outside the process (Pradhanaga et al., 2019). It is important to create community partnerships and allow for more engagement with different ethnic groups in decision-making. Pradhanaga et al. (2019) suggested that the need to build partnerships and trust through collaboration, such as community-lead public events in designing public engagement programs and projects.

2.3.3 New Zealand context involving ethnic groups in decision-making process

In New Zealand, the Intercultural City Project (ICP) in Auckland aimed to promote diversity and intercultural understanding in urban planning and was seen as an advantage for urban development trajectories (Collins & Friesen, 2011). The project indicated the importance of 'diversity advantage' and encouraging the presence and interaction of diverse cultural communities as a key to successful urban development (Collins & Friesen, 2011). In this regard, "diversity advantage aimed to draw together existing 'best practice' knowledge about creativity with a focus on the particular role of cultural difference in the making of urban futures" (Collins & Friesen, 2011, p.3074). In recent years, even though there are no significant broader ethnic groups in political engagement, the concept of multiculturalism has become academically, politically and practically relevant, particularly in cities like Auckland that have experienced rapid ethnic diversification (Collins & Friesen, 2011). The authors suggested the hiring of 'cultural advisors' to assist in the use of a 'cultural filter' in council policy-making processes and to provide support to minority leaders to stand for election (Collins & Friesen, 2011). In addition, the methods for bringing different ethnic groups together should be developed into urban policy through programmes for new migrants and community events (Collins & Friesen, 2011).

It is important to critically examine the linkages between urban development and cultural diversity in policy initiatives such as the ICP (Collins & Friesen, 2011). Integrating cultural perspective into urban policy in Auckland might lead to a positive outcome and enhance socioeconomic equality (Collins & Friesen, 2011). It is laudable for the planners who made efforts to expand cultural perspectives through involving more people from minority groups in politics (Collins & Friesen, 2011).

CCC noted the importance of multicultural engagement and developed the Christchurch Multicultural Strategy 2018-2021, which aimed to make Christchurch city a place where diversity is welcomed and celebrated (Christchurch City Council, n.d.). The third goal in this

report is that “all residents are able to participate in Council decision-making” (Christchurch City Council, n.d., p. 15). It states that enabling and promoting participation in public decision-making by people from all communities can be improved through targeted engagement programmes to access participation in democratic processes (Christchurch City Council, n.d.). The ethnic Chinese community may show willingness to participate, but the reality might be different in terms of “all residents are able to participate in Council decision-making”. The fourth goal is “Christchurch is a city of cultural vibrancy, diversity, inclusion and connection” (Christchurch City Council, n.d., p. 16). This suggests that the CCC acknowledges multicultural issues, including the ways in which different ethnic groups can be engaged. The strategy was set for the council to achieve its key goals. In addition, the council will monitor the implementation of the Multicultural Strategy and publish an annual report (Christchurch City Council, n.d.). The report is to show what has been done towards achieving the key goals and what will be done in the coming year. CCC uses various methods to engage with different communities, including local community boards, targeted consultation, workshops, emails to stakeholders and social media posts. (Christchurch City Council, n.d.). Whether or not those methods are effective for ethnic Chinese engagement will be examined later in this thesis.

The Christchurch Multicultural Strategy defined multicultural or multiculturalism as the sense of an equal celebration and integration of ethnic, religious, cultural and linguistic backgrounds. A deep understanding and acceptance of different cultures is required to be multicultural (Christchurch City Council, n.d.). A search of the ECan website did not reveal an equivalent strategy, although this will be investigated during this research. This is important because different cultures have different values and this is a fundamental aspect of setting freshwater objectives. In terms of the community’s values, Figure 2.5 shows the logic of the process for proposing a regional freshwater plan in New Zealand, which involves identifying values and the attributes that provide for those values, setting freshwater objectives for attributes and setting limits to determine the methods they will use to meet those limits (Fenemor, 2017).

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Figure 2.5. The relationship between freshwater objectives, limits and methods (Fenemor, 2017)

2.3.4 Engagment with tangata whenua in freshwater management

Collaboration with indigenous communities in resource management decision-making is important and there is an increasing trend for this internationally (Dove, 2006; Harmsworth et al. 2016). New Zealand is a multicultural country that consists of different ethnic groups. When considering different ethnic groups in New Zealand, the group that comes to mind first is indigenous Māori. Indeed, public participation in planning or water management is different from a Māori perspective and as Treaty of Waitangi partners, the government must prioritise this group. Local and central government for example are willing to involve people from the indigenous Māori community in freshwater management through meaningful engagement and collaboration (Harmsworth et al., 2016).

Over the past 20 years, New Zealand has seen the emergence of several shared governance and management models based on the Treaty of Waitangi (Harmsworth et al., 2016). Currently, the decline in water quality and quantity in many regions of New Zealand, along with water's state of mauri (loosely translated as life-force) is a considerable concern for Māori (Harmsworth, et al., 2016). Robb et al. (2015) developed a tikanga approach and process for co-governance framework for working with Māori (Figure 2.6). The terms "co-governance", "co-planning" and "co-management" are often used interchangeably, but are not well defined. This situation results in increased ambiguity regarding the role of Māori and the expectations of various Māori groups, as well as the responsibilities and representation of local government in the context of collaborative processes (Harmsworth, et al., 2016).

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Figure 2.6. Tikanga process to achieve desired freshwater planning and management outcomes for Māori (Robb et al. 2015)

Kaitiakitanga refers to environmental guardianship, “the ethic of protecting the environment for its own sake, as well as for present and future generations to use and enjoy” (Te Aho, 2019, p. 1616). From a Te Ao Māori perspective, mountains and rivers are considered to be living entities with their own spiritual essence (Te Aho, 2019). The connections between mountains and rivers/lakes/streams/springs that in turn connect to seas and oceans. In addition, those entities also connect to people, which highlighted the importance of the tangata whenua (local people, people of the land) conception of place (Te Aho, 2019). The absence of tangata whenua values was a flaw in previous legislation, but has now become part of a change in consciousness that ultimately led to the introduction of Sections 6, 7 and 8 of the RMA (Te Aho, 2019).

According to Harmsworth et al. (2016), enduring relationships between local government and tangata whenua and adequate resourcing for all partners are critical to the success of collaborative processes. A deep understanding and appreciation of Māori knowledge and values based on their frameworks and assessment tools can also support collaborative processes (Harmsworth et al., 2016). Furthermore, key indicators should be used to measure

or evaluate the success of a collaborative approach over a longer time frame (Harmsworth et al., 2016).

In addition to involving tangata whenua as Treaty partners in decision-making, there is a need to involve other ethnic groups in these processes. As NPS-FM Section 3.2 states (see Chapter 1 Introduction for more detail), “every regional council must engage with communities and tangata whenua to determine how Te Mana o te Wai applies to water bodies and freshwater ecosystems in the region”. The next section describes the ethnic Chinese community’s engagement in decision-making processes.

2.3.5 Ethnic Chinese engagement in decision-making process

Scholars believe that the increasing cultural diversity of communities around the world due to immigration and globalisation has made it more important than ever for culturally-diverse populations in planning (Bernstein & Norwood, 2008). Moreover, New Zealand politics cannot be defined or understood without reference to the nation’s minority groups because of this country’s large migrant and migrant-origin population (Park, 2006). As discussed in the Introduction chapter, ethnic Chinese people are a part of New Zealand society, occupying around 5.3% of the total New Zealand population, so ethnic Chinese engagement in planning or water management processes is important. However, political participation by ethnic Chinese people in New Zealand is low by comparison with other ethnic groups (Clayton, 2016). In addition, there is a limited amount of research on ethnic Chinese political participation in New Zealand, particularly regarding Chinese electoral participation (Clayton, 2016).

Park states that “any new group of immigrants needs to acquire the necessary language, knowledge, confidence, and qualifications to enter the political arena of the host country” (Park, 2006, p. 26). Residents are more likely to participate in the corresponding political sphere if they live there for a longer time and receive their education in the country (Park, 2006). Park (2006) found that people who stayed in this country for a longer time were more willing to vote for political participation. However, Burk (2009) found no correlation between length of residence and political participation and reported that some ethnic Chinese people born in New Zealand were more concerned with forging their adult lives than developing political interest until they recognised the impact the government’s political decision-making was having on their lives (Burk, 2009).

From an ethical perspective, it is imperative for public agencies to offer translation services for different ethnic groups who are not fluent in English in order to build bridges and facilitate bilingual dialogues (Bernstein & Norwood, 2008). Meeting facilitators need to emphasise collaboration by highlighting how issues are linked to the shared values and interests among different ethnic groups to reduce conflict apprehension (Bernstein & Norwood, 2008).

It is crucial for public officials to receive training in meeting facilitation using approaches that are culturally sensitive and inclusive of multicultural populations (Bernstein & Norwood, 2008). Different voices must be provided opportunities to be heard (Bernstein & Norwood, 2008). In addition, to achieve collaborative problem-solving, it is essential to provide different ethnic groups with an opportunity to express their interests and values. Instead of only opening up a meeting to public comment in a general way, techniques such as small break-out group discussions are needed (Bernstein & Norwood, 2008).

There was a study that showed diversity public engagement in New Zealand planning with a particular focus on the Chinese ethnic group. In this study, Wang highlighted that ethnic Chinese people are interested in being involved in planning issues, but that there is very little actual engagement within planning processes (Wang, 2019). Wang used both survey and interview methodology for data collection and survey results showed that most participants knew little about planning and public engagement due to a lack of local environmental and political knowledge and the language barrier (Wang, 2019). In addition, there was a substantial proportion of Chinese immigrants who did not care about local planning issues; their concerns were based on their individual living experience (Wang, 2019). According to both the government and public interviews, engagement with different ethnic groups including ethnic Chinese people was needed to achieve successful planning (Wang, 2019). Finally, Wang suggested that local government should consider providing translated planning documents, promoting the use of social media as a communication tool and encouraging interaction with different ethnic groups to improve public engagement with diverse ethnic populations.

My research will build on Wang's study and explore deeper into engagement with ethnic Chinese people living in Christchurch regarding water management area. Wang showed that "the ethnic Chinese group generally care for their local living environment, which implies that more effective engagement with the Chinese ethnic population could be valuable.

However, people of Chinese ethnicity pretend to show less care for politics in order to avoid local social judgment” (Wang, 2019, p.40).

Different studies have highlighted the importance of public participation in decision-making processes, especially for ethnic minority groups. In the New Zealand context, aside from Wang (2019) I did not identify any studies that focused on multi-ethnic groups’ participation in water management, although many studies focused on indigenous participation. As shown previously, the regional council has designed policies for the best-practice in terms of engagement in water management. However, specific engagement methods with ethnic Chinese people to achieve best-practice are still unknown.

2.4 Summary

This chapter has highlighted the key findings of the public participation theory including the definition, importance and effectiveness. Two models of public participation were reviewed: Arnstein’s ladder and IAP2. Nine criteria were used to evaluate the effectiveness of participation. Next, barriers or obstacles that impeded participation were discussed. Within the New Zealand context, water governance and regional council current practice about engagement was briefly discussed, giving examples of NPS-FM, CWMS and ZIP. The literature on multi-ethnic communities in collaborative decision-making all showed the importance of involving multi-ethnic groups in any context, including freshwater management. In New Zealand, co-governance with Māori is very important and has the highest priority, but engagement with other different ethnic groups is also important.

This research focuses on ethnic Chinese engagement as a case study. As the literature shows, many studies have focused on multi-ethnic engagement across many contexts worldwide, including water management. Many studies have also focused on co-governance with Māori and other ethnic groups in a variety of contexts within New Zealand. However, little research has focused on ethnic Chinese engagement in water management or planning within New Zealand. This research specifically explores ethnic Chinese engagement in water management decision-making processes in Christchurch.

The following chapter outlines methods and methodology for collecting the research data and how the data was analysed.

Chapter 3

Methodology

Introduction

This methodology chapter outlines how the research was implemented, including the data collection from surveys and semi-structured interviews, the analysis of the collected data and the ethical considerations of this methodology.

3.1 Qualitative research & Quantitative research

This study used mixed methods, both qualitative and quantitative, because mixed methods facilitate a view from different perspectives, facilitate a fuller understanding, and enhance credibility among a wider group, providing both breadth and depth to the research (Blaikie, 2000).

Firstly, a qualitative research methodology was applied, which aims to understand what Te Mana o te Wai means to local Chinese community leaders and to identify and evaluate effective ways for engaging with ethnic Chinese from interview data. The qualitative research aims to understanding the nature of a particular phenomenon or situation by exploring the perspectives and experiences of the people involved (Merriam & Tisdell, 2015). Qualitative research does not aim to make predictions but seek to gain a deeper understanding for the phenomenon or situation (Merriam & Tisdell, 2015). In addition, the qualitative research method helps me to understand how people interpret their experiences, how they construct their worlds and what meaning they attribute to their experiences (Merriam & Tisdell, 2015).

A quantitative research methodology was used for the analysis of the survey data. The survey data helps me to find answers towards understanding Te Mana o te Wai among ethnic Chinese living in Christchurch and what they expect the government to improve regarding their engagement. This approach helps me to understand a particular phenomenon that might be generalised to a larger population and allows me to observe, explain and predict specific phenomena (Allen et al., 2008).

3.2 Surveys

3.2.1 Survey design

To explore the understanding of 'Te Mana o te Wai' for ethnic Chinese living in Christchurch (Objective 1), any ethnic Chinese people living in Christchurch were my potential participants. I did the survey using both direct (paper) and online approaches to collect data. The questions were both open-ended and close-ended. Survey questions are attached in Appendix D.

According to the Stats NZ 2018 Census, the ethnic Chinese group includes the following groups of people: Chinese, Hong Kong Chinese, Cambodian Chinese, Malaysian Chinese, Taiwanese, Singaporean Chinese and Vietnamese Chinese (Stats, 2018). This research focuses on Christchurch and the data was collected from Chinese people living in this city; tourists were not included. Furthermore, this research focuses on the ethnic Chinese group. The Oxford Dictionary defines ethnic group or ethnicity as "the fact of belonging to a particular ethnic group, or a group of people that share a cultural tradition". Stats NZ (n.d.) website defines ethnicity as a measure of cultural affiliation: "People in the same ethnic group have some or all of the following characteristics: a common proper name, one or more elements of common culture, unique community of interests, a shared sense of common origins or ancestry and a common geographic origin" (Stats NZ, n.d.).

The other aspect of the survey is the difference between migrants and immigrants. To be more specific, a migrant is someone who moves to another country temporarily, while an immigrant is someone who moves to another country with the intention of settling there permanently (Bailey, 2010). In this survey, I did not intend to divide them into two groups but compared the different point of views from migrants/immigrants and others, because the status of citizenship or residency might affect their long-term relationship with water. This was shown in Survey Question 7 'How long have you been here?' and Question 8 'How much longer do you intend to stay in New Zealand?'

This research focuses on ethnic Chinese people living in Christchurch. For the direct approach, using GIS and census data Wang (2019) found that the Church Corner Asian market area (Figure 3.1) had the highest Chinese population density in Christchurch. The data was collected at the market by approaching every third person to get a representative sample that minimises bias, as the direct (paper) survey was a more convenient and effective approach.

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Figure 3.1. Survey location at Church Corner (Wang,2019. P.26)

3.2.2 Participants

Data was collected during July and August 2022. An anonymous survey of 151 local Chinese community members was conducted: 67 responses were collected in person and 84 responses were collected online through social media channels.

Table 3.1 below shows the paper survey summary, including time, number of rejections and success and some notes taken from the survey. There was a 30% acceptance rate.

Table 3.1 Paper survey summary

Time	Rejection	Success	Total Approached	Notes
7.9 9.20 – 10.30 am	16	0	16	Cold weather

7.10 1.45 – 3.50 pm	15	9	24	More people went to the market this day. One person said he did not care about water directly
7.15 12.00 – 1.10pm	1	5	6	Sunny day
7.15 4.30 – 5.00 pm	2	3	5	Rainy after 5pm
7.17 2.30 – 4.30 pm	19	7	26	
7.17 4.00 – 5.10 pm	7	5	12	One person said last two questions were confusing
7.18 3.45 – 5.10 pm	5	6	11	
7.20 4.00 – 5.15 pm	4	5	9	One person said he knew ECan because of half-price bus fare
7.23 2.30 – 4.10 pm	23	5	28	Sunny day. One person suggested cold weather was not suitable for survey
7.27	14	6	20	Sunny day

1.20 – 3.20 pm				
7.29 3.30 – 5.00 pm	23	5	28	
8.2 1.30 – 4.00 pm	14	7	21	Sunny day, warm temperature
8.4 1.50 – 3.30 pm	17	4	21	Sunny day, warm weather but windy. Less busy than weekend
Total	160	67	227	Successful rate: 29.5%

In terms of online survey, 84 survey responses were collected online through social media channels, including Facebook and WeChat APP. I used Qualtrics online to create questions and the link, then shared the link in WeChat (a social media App Chinese people prefer to use worldwide) groups and in a Facebook group named 'Christchurch Chinese group'. Qualtrics is a good way to do an online survey, as it maintains confidentiality for people using it. Qualtrics was also set so that any single IP address could only do one survey to prevent someone from doing the survey multiple times. However, I cannot check if someone was using a VPN and doing the survey multiple times.

In the paper survey, as shown in Table 3.1, 70% of people approached refused to do the survey. This could be because of the COVID-19 pandemic, during which people wanted to keep their distance. Cold weather in July and August could be another reason. The survey data collection was carried out at Church Corner, outside the market. Some people were in a hurry; they had bought something and did not want to stay for a longer time. In the online survey, because Qualtrics was set so that one IP address could only do one survey, people using the same IP address, such as family members or flatmates, could not participate. In addition, the Research Information Sheet attached at the beginning of the survey needed to

be read before a participant could do the survey; as it was time-consuming, some may have closed the window, resulting in invalid data.

3.2.3 Data analysis

For the paper survey data, I typed all results into SPSS software manually. To ensure the accuracy of paper surveys, I picked out five random results and compared my transcripts to the raw data; if there was something wrong, I then picked out another five random results and did the same. This process ensured the transfer of the data from the paper survey had been accurately done. This process was replicated three times and no incorrect data was found. The online survey data was exported directly from Qualtrics to SPSS.

Statistical analysis includes descriptive statistics, cross tabulations and the chi-squared test were used. In this research, I will use cross tabulation to analyse the relationship between two or more variables, because this method provides the comparison and analysis of the outcomes for one or more variables with those of others (DeFranzo, 2022). This method helps me analyse the frequency of the answers, easily take the information from this method and create a visual chart or graph and explore survey data to uncover hidden relationships between items (DeFranzo, 2022). The chi-squared is used to examine independence across two categorical variables (Franke et al., 2012). In this research, chi-square was used to examine the relationship between respondents' genders, age groups, time in Christchurch and survey methods. The combination of those methods provided more robust findings, enabled effective data visualisation and facilitated the interpretation. For the open-ended questions, all responses were recorded verbatim and analysed after grouping them into themes. Thematic analysis is a research method that involves the identification, organisation and interpretation of patterns of themes with a data set (Braun & Clarke, 2012). Those answers helped me to gain different respondents' aspects that I had not considered before.

3.3 Semi-structured interviews

3.3.1 Interview format

This study used semi-structured interviews. A semi-structured interview relies on a pre-determined question guide, which are designed to elicit in-depth responses from participants (Young et al., 2018). Crucially, semi-structured interviews provide a flexible framework for the interviewer to explore topic in depth. It means that the interviewer can

freely modify the questions or the order of the interview based on the responses of the participant or add unplanned follow-up questions if an interesting or new line of enquiry emerges during the interview (Young et al., 2018). Flexibility is important in this study, because interviewees had some interesting and different points of views when answering questions, so I could explore deeper into their thoughts and encourage them to speak more.

3.3.2 Participants

Ten semi-structured interviews were conducted between late July and early August 2022: four online and six face-to-face. Five central and local government staff, four local Chinese community leaders and one ethnic Chinese scientist were interviewed. Except for two interviewees who refused to be recorded, the other eight interviews were recorded and later transcribed in full for detailed analysis. Interview questions are in Appendix F. Different questions were designed for different interviewees and additional questions were asked, depending on their responses.

The government staff and councillors listed in Table 3.2 below helped me to understand their point of views in terms of multiculturalism. The Christchurch West Melton Zone Committee is highly relevant to this research, located as it is in Christchurch and immediate surrounds (Figure 3.2). Participants' views on multiculturalism were investigated as well as how this might be accommodated within their statutory planning for the NPS-FM and non-statutory zone committee processes. Questions explored their experiences with collaborative processes, desire for engagement, knowledge of the freshwater planning processes and values and concerns towards water.



Figure 3.2. Canterbury Water Zones map (Environment Canterbury, 2022)

Interview duration was calculated according to the length of recording. Interview duration for Public Official 3 and ethnic Chinese Scientist (who were not recorded) were estimated at about 30 minutes.

Table 3.2. Summary of interview details

Interviewees	Occupation	Interview duration	Venue
Public Official 1	Councillor	41 minutes	Teams
Public Official 2	Engagement Advisor	45 minutes	ECan meeting room
Public Official 3	Zone Facilitator	30 minutes	South Christchurch Library
Public Official 4	CCC Councillor (until Oct 8 th 2022)	34 minutes	CCC meeting room
Public Official 5	Senior Advisor	48 minutes	Teams
Leader 1	Leader of Lincoln Chinese Church	37 minutes	Lincoln Library
Leader 2	College Director	25 minutes	Teams

Leader 3	Research Secretary	33 minutes	Upper Riccarton Library
Leader 4	Leader of Zhonghua Chinese Society	32 minutes	Red Bowl Chinese Restaurant
Ethnic Chinese scientist	CRI Scientist	30 minutes	Teams

The four local Chinese community leaders and one ethnic Chinese scientist listed in Table 3.2 provided their points of view about water issues and engagement not only for themselves, but also from their communities. Each respondent answered their set questions as well as additional questions. Questions might not have been answered in sequence because participants might have answered several questions together or jumped to other questions directly. Interviews were digitally recorded using an app named Otter, with a recorder borrowed from Lincoln University as a back-up. Otter can record a conversation and then export it to a laptop as text. To ensure accuracy, transcripts were checked with recordings to avoid spelling and other errors.

Snowball sampling is a recruitment technique to help us to identify other potential participants (Boeije, 2010). I used this to identify potential participants. To be more specific, one local Chinese community leader and one ECan staff member were identified through snowball sampling for interviews. Two interviewees were suggested by a contact. After the interview one ECan staff member gave me three potential participants, including another ECan staff member. Unfortunately, two of them refused and only one other ECan staff member agreed to participate. Other interviewees were identified through official websites and contacted directly via email or mobile phone.

3.3.3 Data analysis

Transcription is the process of converting recorded audio into a written document, which can be used for analysis (McMullin, 2021). Firstly, I listened to all of the interview recordings and typed everything into Microsoft Word documents. It is also important to collate and group identified categories and main themes in a systematic and consistent manner in the overall analysis. Coding is the process of sorting data into various categories and sets of ideas and defining what the data are about by relating those data to our ideas about them (Lofland et al., 2006). Then, I exported all of my transcripts from Word documents to Nvivo

for coding. After finishing coding, I created a spreadsheet in Microsoft Excel according to different themes.

Similarly, as discussed in Section 3.2.3, thematic analysis was used when I analysed my interview data as well. The reason for using thematic analysis in this study was mainly because of accessibility and flexibility. In addition, this method helped me to identify the important topic and research questions being explored and to help me to achieve research objectives (Braun & Clarke, 2012).

3.4 Reviewing existing documents

The third objective was to review existing ECan practices with respect to best-practice for engagement with ethnic Chinese groups on the NPS-FM and other important environmental issues. The key documents were selected for review were the Christchurch Multicultural Strategy (2017 -- 2021), the CWMS, the Christchurch West Melton Zone Committee Implementation Programme, the NPS-FM, the Canterbury Regional Policy Statement, Mahaanui Iwi Management Plan 2013 and the Land and Water Forum Commentary on Implementation of the NPS-FM (see Table 5.1).

In addition, ECan documents such as annual reports or reviews of outcomes from strategies highlighted the actions that have occurred and the goals that were planned to be achieved. This enabled analysis of the survey data collected to evaluate whether ECan is able to achieve an inclusive process to set long-term visions for freshwater in the Christchurch-West Melton zone. A list of reviewed documents is shown in Table 5.1.

3.5 Ethical considerations

Merriam and Tisdell (2015, p. 237) stated that “all research is concerned with producing valid and reliable knowledge in an ethical manner”. In this study, both survey data and interview data have been treated as confidential at all times.

This research was approved by the Lincoln University Human Ethical Committee before contacting interviewees or attending to the market. Both interview and survey participants were provided with a Research Information Sheet (Appendix C and Appendix E, respectively), which outlined the details of this research, the voluntary nature of their participation and their right to withdraw any time before the end of August 2022 (giving them more than four weeks to consider whether or not to withdraw). Interviewees were also provided a Consent Form (Appendix G) and asked to sign this form. After finishing the transcription, I sent the

transcript to the interviewee. If the interviewee returned the transcript with corrections, the modified version was used.

Unfortunately, Public Official 5 withdrew from the project after she checked the transcript because she felt it was inappropriate to be included in this research project. This interview data was therefore removed from analysis..

3.6 Chapter Summary

In summary, this chapter has discussed the methodological approach used to conduct this study. Mixed methods were used in this study: quantitative research method was used for surveys and qualitative research method was used for semi-structured interviews. There were 151 responses from the survey and 10 people were interviewed. The survey data was analysed through SPSS software, while the interview data was analysed through Nvivo before an Excel spreadsheet was created according to their different themes, highlighted the interesting findings. These processes, in combination, helped me to achieve the first two objectives of this study: to identify what Te Mana o te Wai means to ethnic Chinese and to identify and evaluate effective engagement methods for ethnic Chinese. The third objective will be achieved through reviewing existing documents regarding best-practice for engagement with ethnic Chinese on the NPS-FM. The next chapter presents the findings generated through these methods.

Chapter 4

Survey Result

Introduction

This section presents the quantitative data drawn from the survey responses of 151 ethnic Chinese living in Christchurch. Sixty-seven responses were collected at the market and 84 were collected online. The quantitative results are presented in seven sections. The first section shows the respondents' profile characteristics including gender, age, length of time in New Zealand and Christchurch. The paper and online responses were combined for analysis. The following section emphasises respondents' awareness of water-related issues, Te Mana o te Wai, Environment Canterbury and their water management role. A chi-squared test was used to examine the relationship between respondents' genders, age groups, time in Christchurch and survey methods. The next section shows respondents' views about participation in policy-making processes, discuss including whether they were happy to participate and which water issue(s) they were willing to participate in. The final section shows respondents' previous and future participation, including their participation times and some potential options they provided for their effective participation.

4.1 Profile of respondents

Table 4.1 below shows the respondents' profiles for the in-person survey. The data shows that 57% were male and 43% were female. The age distribution varied from 18 to 55+. The age group 25–40 years (39%) had the highest proportion of respondents and people who were older than 55 years (13%) had the lowest proportion.

Regarding the length of time they had stayed in New Zealand, the number of people who stayed in New Zealand for 6-10 years was slightly higher than people who had stayed for 1–5 years. People who stayed in Christchurch for 1–5 years ranked first (36%) while people who stayed here for 6–10 years ranked second. People who had stayed in both New Zealand and Christchurch for more than 20 years ranked third of all those surveyed.

Table 4.1. Population demographics of respondents to the in-person (paper) survey in July and August 2022, along with the length of residence in New Zealand and Christchurch (n=67)

		N	%
Gender	Male	38	57
	Female	29	43
Age	18-24	17	25
	25-40	26	39
	41-55	15	23
	55+	9	13
Length of time in New Zealand	< 1 year	6	9
	1- 5 years	20	30
	6-10 years	21	31
	11-20 years	8	12
	> 20 years	12	18
Length of time in Christchurch	< 1 year	9	13
	1- 5 years	24	36
	6-10 years	16	24
	11-20 years	7	10
	> 20 years	11	17

Table 4.2 below shows the respondents' profiles for the online survey. More females (67%) did the survey online compared with males (33%). Comparing gender results for the paper and online surveys suggests that females (43% vs 67% for paper and online, respectively) were more likely to be engaged through online channels. The age group 25–40 (57%) had the highest proportion of respondents and people who were older than 55 years old (8%) had the lowest proportion. More than half of all respondents were aged between 25 and 40. The length of time respondents had stayed here was different from the paper survey. Specifically, online respondents who had stayed in both New Zealand and Christchurch for 1–5 years had a significant proportion (43% and 48%, respectively) when compared to other age groups. In addition, people who stayed in both New Zealand and Christchurch had the lowest proportion of all respondents, which was quite different from the paper survey results.

Table 4.2. Population demographics of respondents to the online survey in July and August 2022, along with the length of residence in New Zealand and Christchurch (n=84)

		N	%
Gender	Male	28	33
	Female	56	67
Age	18-24	17	20
	25-40	48	57
	41-55	12	15
	55+	7	8
Length of time in New Zealand	< 1 year	10	12
	1-5 years	36	43
	6-10 years	23	27
	11-20 years	10	12
	> 20 years	5	6
Length of time in Christchurch	< 1 year	12	14
	1-5 years	40	48
	6-10 years	18	21
	11-20 years	11	13
	> 20 years	3	4

Table 4.3 below shows the total results (combined paper and online survey data). This shows the total respondents were 44% male and 56% female. Those aged 25–40 were the highest proportion of respondents (49%) and people aged older than 55 years had the lowest proportion (11%). Overall, the proportion who had stayed in both New Zealand and Christchurch for 1-5 years and 6-10 years ranked first and second, respectively and people who had been here for more than 20 years had the lowest proportion.

Table 4.3. Population demographics of respondents to the survey (paper + online) in July and August 2022, along with the length of residence in New Zealand and Christchurch (n=151)

		N	%
Gender	Male	66	44
	Female	85	56
Age	18-24	34	22
	25-40	74	49
	41-55	27	18
	55+	16	11
Length of time in New Zealand	< 1 year	16	11
	1- 5 years	56	37
	6-10 years	44	29
	11-20 years	18	12
	> 20 years	17	11
Length of time in Christchurch	< 1 year	21	14
	1- 5 years	64	42
	6-10 years	34	23

	11-20 years	18	12
	> 20 years	14	9

4.2 Respondents' awareness of water-related issues

Survey respondents were asked whether they were concerned about water-related issues in New Zealand. In their responses, 87 respondents (58%) expressed worry about water-related issues while 52 (34%) did not. The remaining 12 respondents (8%) chose the 'not sure' option, which might mean they had never thought about water issues or that they were not aware of the current water issues.

The following open-ended question (Q17) was asked regarding what water issues they were concerned about. Seventy-eight people answered this question and their responses are shown in Figure 4.1, which shows that respondents were mostly concerned about water quality issues such as water pollution (29) and drinking water quality (24). Conversely, respondents were less concerned about water quantity issues, such as water overuse in agriculture (5) and waste of water (6). From this open-ended question, different respondents brought a variety of perspectives on water issues they were concerned about. This implies that ethnic Chinese living in New Zealand considered or are concerned about water-related issues.

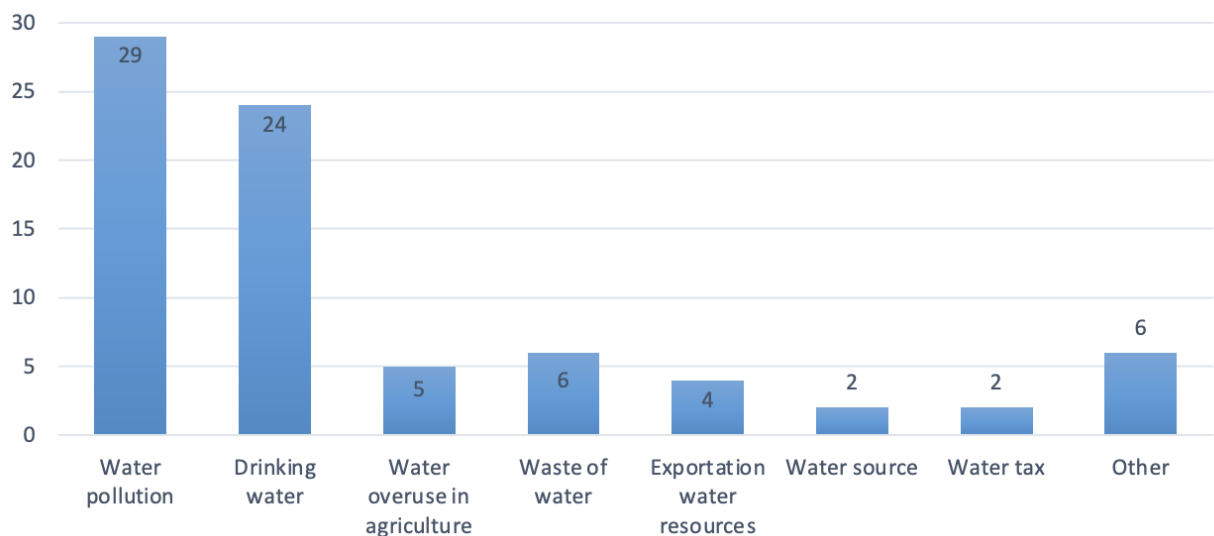


Figure 4.1. Water issues respondents were concerned about. This was an open-ended question answered by 78 respondents (n=78)

4.3 Awareness of Te Mana o te Wai

Regarding respondents' understanding of 'Te Mana o te Wai', only 10 respondents (7%) had heard of this term, while 135 (89%) had never heard of it. For those who responded 'not sure', it might mean they did not remember whether or not they had heard of this term.

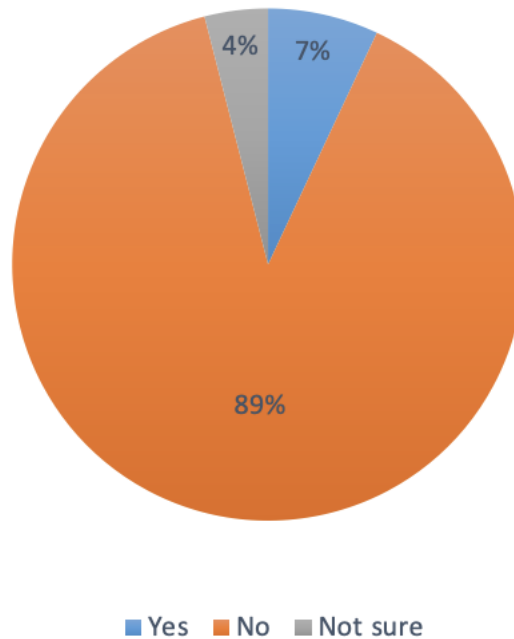


Figure 4.2. Respondents who had heard of Te Mana o te Wai (n=151)

Six respondents wrote down their understanding of this term. Their answers were: Wai = water; the importance of water; energy/synergy flows in the living environment; lifting standards for how we care for freshwater; utilisation of water resources; protecting waterways; taking care of freshwater. Among those answers, people thought it might mean the importance of water and how we could manage waterways. However, it appears that they did not consider the hierarchy of this term.

For those who never heard of Te Mana o te Wai, the following question (Question 23) was asked to find out about their understanding of the life-supporting importance of water. There were 37 people answered this question and respondents' answers were categorised into two hierarchies. As Figure 4.3 below shows, no one thought this term related to the third hierarchy (the ability of people and communities to provide for their social, economic

and cultural well-being, now and in the future). Thirty-four people (91%) thought it related to the second hierarchy (the health needs of people, such as drinking water). Those who answered 'water is very important' might have meant that water was important for people; this placed it into the second hierarchy. Only 3 people (9%) mentioned the first hierarchy (the health and well-being of water bodies and freshwater ecosystems). Of this group, answers included "biological sustainability", "water supports our life" and "healthy ecosystem".

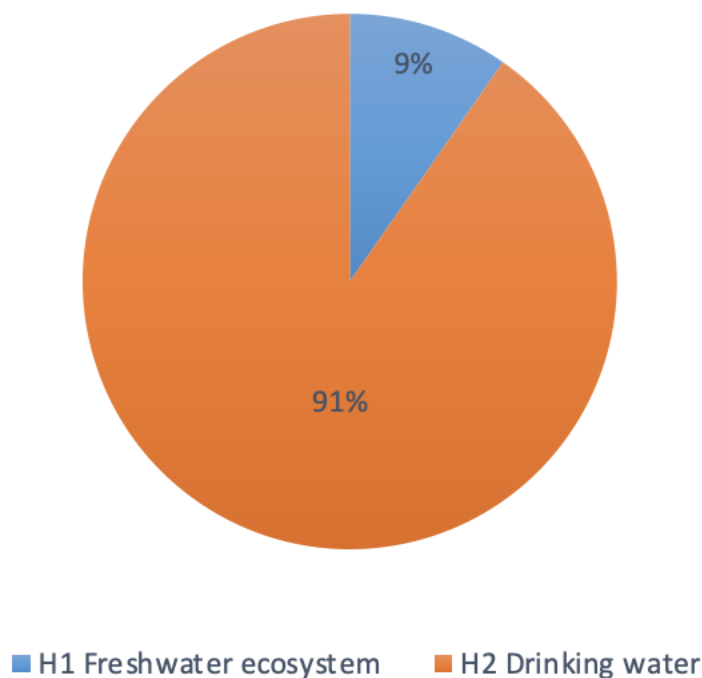


Figure 4.3. Respondents' answers to the Hierarchy of objectives in the NPS-FM 2020 (n=151)

4.4 Awareness of Environment Canterbury and their water management role

There were seven questions (Q9 – Q15) asked regarding respondents' awareness of the local government, such as ECan (Environment Canterbury). Results are shown in Table 4.4. First, 41% of respondents had heard of ECan and 54% of them had not. The majority of people (62%) did not know what ECan does, while 19% of respondents did know. When asked about ECan's role in water management, fewer people (only 13%) knew about their role in water management, while 71% of them did not. When asked whether they had heard of the Christchurch West Melton Zone Committee (ZC), only 5% of respondents stated they had,

while 89% had not. It was evident that there was limited awareness of ECan among the ethnic Chinese living in Christchurch.

Table 4.4. Respondents' awareness of ECan, its functions, previous dealings and ECan's role in water management (n=151)

	Heard of ECan		Know what they do		Previous dealings with ECan		ECan's role in water management		Heard of ZC	
	n	%	N	%	n	%	n	%	n	%
Yes	62	41	29	19	11	7	20	13	7	5
No	81	54	93	62	132	88	107	71	135	89
Not sure	8	5	29	19	8	5	24	16	9	6
Total	151	100	151	100	151	100	151	100	151	100

As Table 4.4 shows, only 11 respondents had dealt with ECan before. Eight of those respondents answered what they dealt with ECan about: water pollution, wastewater, attending tree plantings held by ECan, resource consent and contamination information, research, resource consent of storm water/wastewater disposal and two were in relation to their work.

A low percentage of people had heard of ZC. Six wrote down their thoughts on what ZC do: dealing with issues of water supply and quality, relevant to community health; maintaining environment; water usage, irrigation systems, cost savings, reduced wastewater discussions; protecting water sources and checking and ensuring water quality.

The data above shows there is low awareness among ethnic Chinese of government and Māori water management. Hence, it is important to know where they had gained their knowledge of water issues. Figure 4.4 below shows respondents' sources of knowledge of water issues. (Respondents were able to select multiple options.) Most people gained their knowledge from social media, TV and friends (ranked first, second and third, respectively). The number of people who gained knowledge from community boards and council events was relatively low compared to others, while only 4 people gained knowledge from environmental restoration activities. In addition, 16 respondents selected the 'other' option, five of whom gained knowledge from university and school, five from life experience, one from working experience, one from the library and four from other educational institutions.

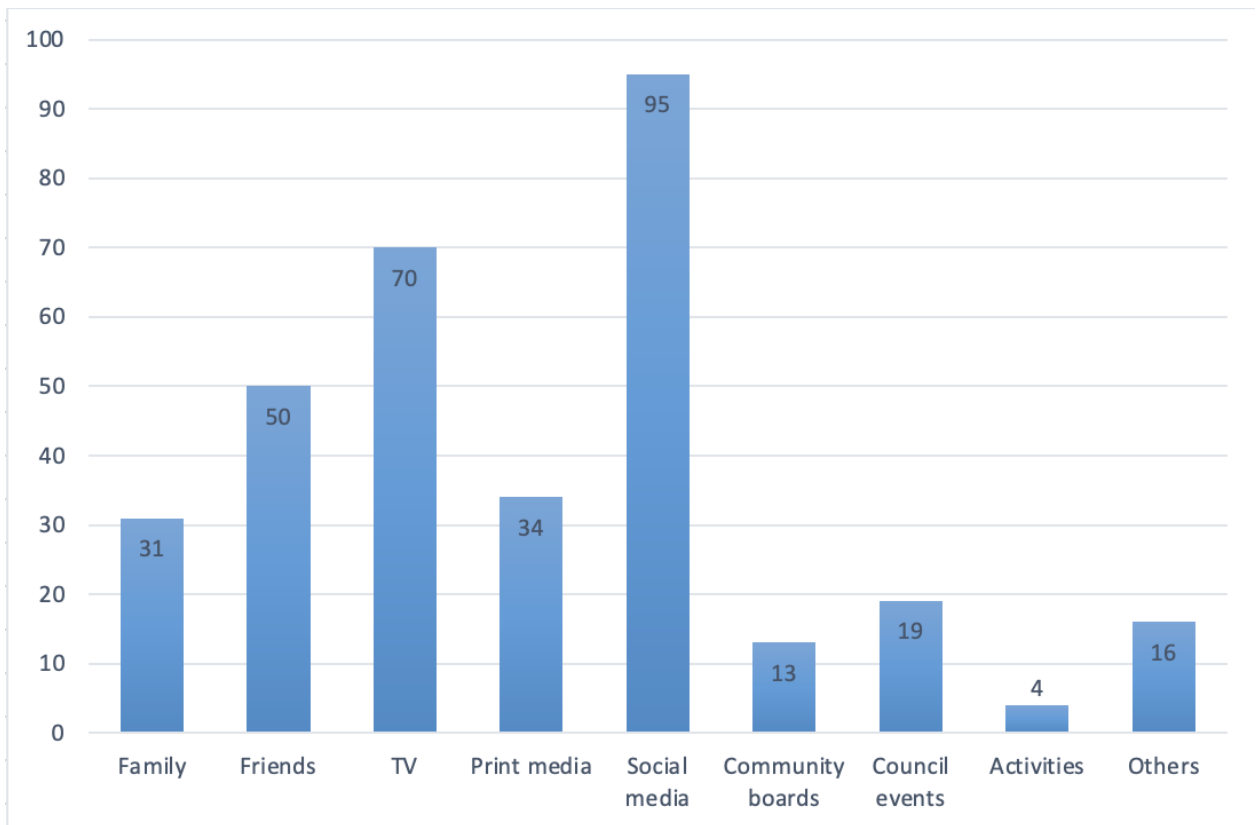


Figure 4.4. Respondents' sources of knowledge of water issues (n=151). Multiple options were available. 'Activities' means environmental restoration activities.

4.5 Relationship between respondents' genders, age groups, time in Christchurch and survey methods

The chi-squared test was used to examine the relationship between two variables. Firstly, it was used to explore whether the differences between genders in responding to the paper and online surveys was statistically significant. A highly significant result was obtained (χ^2 [chi-square value] = 16.6, df = 1, $p < 0.001$), which indicated that female participants preferred completing an online survey (n=56) over an in-person method (n=29). In contrast, male participants were more likely to respond to the in-person survey (n=38) than online. There was a 30% acceptance rate for the paper survey. Unfortunately, people who rejected the in-person survey were not recorded by gender. This was one of the limitations of this study.

Secondly, the relationship between respondents' age and survey method was explored. A statistically significant relationship showed that females aged 25–40 (n = 34) were more likely to complete the survey online ($\chi^2 = 11.4$, df = 3, $p < 0.01$).

Thirdly, the relationship between respondents' length of time in Christchurch and survey method was tested. A statistically significant relationship showed that people who had been here for 1-5 years (n = 40) were more likely to respond via online channels ($\chi^2= 30.2$ df = 4, $p < 0.001$), while people who have been here more than 20 years were more likely to respond to the paper survey (n = 11) compared to the online survey (n = 3).

The results in Table 4.5 show that there were differences. Females aged 25–40 filled out the online survey at over three times the number than in-person. In contrast, very few males over the age of 41 completed the survey online (n=2), while 11 completed the in-person survey. There were no obvious gender differences in the other age groups.

Table 4.5. Number of respondents at different age groups by gender for both paper and online survey (n=151)

Age	Gender	Paper	Online
18-24	Male	10	12
	Female	7	5
25-40	Male	16	14
	Female	10	34
41+	Male	11	2
	Female	13	17

Table 4.6 below shows that females who had been in Christchurch for 1–5 years and 6–10 years did the online survey at over twice the number than in-person. There were no obvious differences for males who had been in Christchurch 1–5 years. Other sample sizes were too small to obtain a robust result, even after combining the data for age groups 11-20 years and >20 years.

Table 4.6. Number of respondents of different lengths of time in Christchurch by gender for both paper and online survey (n=151). Two groups (the 11-20 years group and >20 years) were combined into one group (>10 years) because of low number of responses

Length of time in CHC	Gender	Paper	Online
<1 year	Male	4	8
	Female	5	4
1-5 years	Male	12	13
	Female	12	26
6-10 years	Male	9	3
	Female	7	15
>10 years	Male	12	4

	Female	6	11
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Table 4.7 shows that females were almost twice as likely to feel concerned about water-related issues than males; this relationship was statistically significant ($X^2=10.3$, $p < 0.01$, $n=151$). Respondents who selected 'not sure' might have meant that they had not thought about it, but that they may become a yes or no in future.

Table 4.7. Respondents concerned about water issues by gender (n=151)

	Male	Female
Yes	30 (20%)	57 (38%)
No	32 (21%)	20 (12%)
Not sure	4 (3%)	8 (6%)

4.6 Respondents' views on involvement in policy-making processes

Respondents were asked about their perspectives on their involvement and thoughts about ethnic Chinese involvement in policy-making (Table 4.8). Only 26% of respondents were willing to be involved by themselves; 56% adopted a neutral position and 15% were unlikely to be involved. However, when asked "How likely they think ethnic Chinese people should be involved in policy-making processes?", 69% thought ethnic Chinese should be involved, 28% adopted a neutral position and only 3% thought it unlikely for them be involved. It appears most ethnic Chinese living in New Zealand think it is important for ethnic Chinese to be involved, but not for themselves to be involved.

Table 4.8. Respondents' perspectives on their potential individual involvement in ethnic Chinese in the policy-making processes (n=151)

	How likely are they willing to be involved		How likely do they think ethnic Chinese people should be involved	
	N	%	N	%
Likely	39	26	104	69
Neutral/Not sure	84	56	43	28
Unlikely	23	15	4	3
Prefer not to say	5	3	0	0
Total	151	100	151	100

Table 4.9 suggests that females (15%) were more likely to want to be involved than males (11%). People who were neutral or not sure could or could not participate: more than half of

respondents (22% and 34% male and female, respectively). Therefore, it is important to consider how to approach these people with regards to different participatory methods.

Table 4.9. Respondents' willingness to be involved in setting long-term visions for freshwater by gender (n=151)

	Male	Female
Likely	17 (11%)	22 (15%)
Neutral/Not sure	32 (22%)	52 (34%)
Unlikely	14 (9%)	9 (6%)
Prefer not to say	3 (2%)	2 (1%)

Most people thought ethnic Chinese should be involved, as shown in Table 4.10 below. However, when asked how likely ethnic Chinese should be involved, almost 70% (49 males and 55 females) answered 'likely', rather than 'neutral/not sure'.

Table 4.10. Respondents' thoughts about ethnic Chinese involved in setting long-term visions for freshwater by gender (n=151)

	Male	Female
Likely	49 (33%)	55 (36%)
Neutral/Not sure	15 (10%)	28 (19%)
Unlikely	2 (1%)	2 (1%)

When compared to the previous table (Table 4.8), ethnic Chinese people did not show enthusiasm about being involved; only 17 males and 22 females were likely to be involved.

Table 4.11 below suggests that people of all age groups are interested in water and could potentially be involved. A minority of people were unlikely to be involved.

Table 4.11. Respondents' willingness to be involved in setting long-term visions for freshwater by age group (n=151)

	18-24	25-40	41-55	55+
Likely	7	16	11	5
Neutral/Not sure	11	43	12	6
Unlikely	3	14	2	4
Prefer not to say	1	1	2	1

Table 4.12 shows that more people who had been here for less than 1 year were not concerned about water issues, while more than half of respondents who had been here for

more than 1 year were more concerned. In addition, the more time respondents had been here, the higher the percentage of those concerned about water issues.

Table 4.12. Respondents concerned about water issues by length of time in Christchurch (n=151).
Two groups (11-20 years and >20 years) were combined into one group (>10 years) because of the low number of responses.

	<1 year	1-5 years	6-10 years	>10 years
Yes	8	35	21	23
No	11	21	11	9
Not sure	2	8	2	0
Total	21	64	34	32

Figure 4.5 below shows that 143 people were willing to be involved in drinking water issues (131 who selected the 'drinking water' option plus the 12 people who selected 'all of the above' option). Water pollution ranked second. This was quite similar to the previous result (Figure 4.1), which showed that drinking water and water pollution were the first and second water issues respondents were concerned about. Shellfish collection and biodiversity decline showed a relatively low number of people willing to be involved.

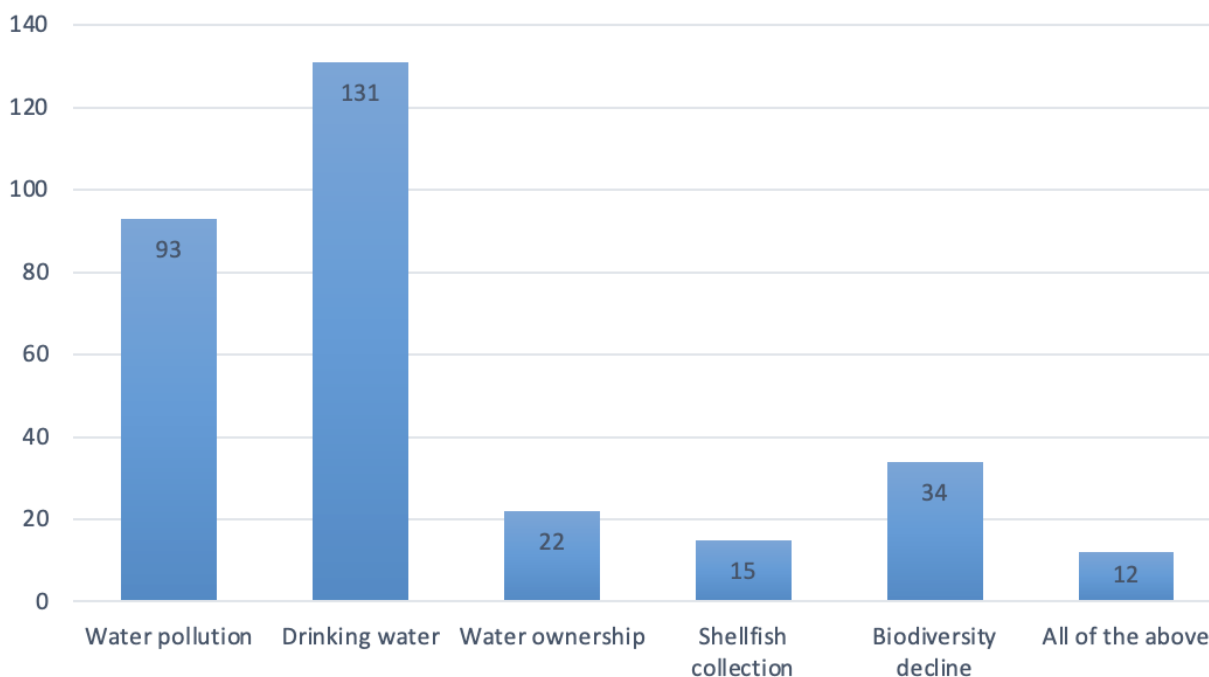


Figure 4.5. Water issues respondents were willing to be involved in helping to address. Respondents were able to select more than one option (n= 151)

4.7 Past and future involvement

In terms of number of previous engagements, only two people had engaged more than 6 times before ((Figure 4.6). One had engaged 6-10 times and another more than 10 times. Another 15 people had engaged 1–5 times. Thus, from a total of 151 respondents, only 17 had engaged in council policy-making processes previously, while 134 (almost 89% of respondents) had never engaged.

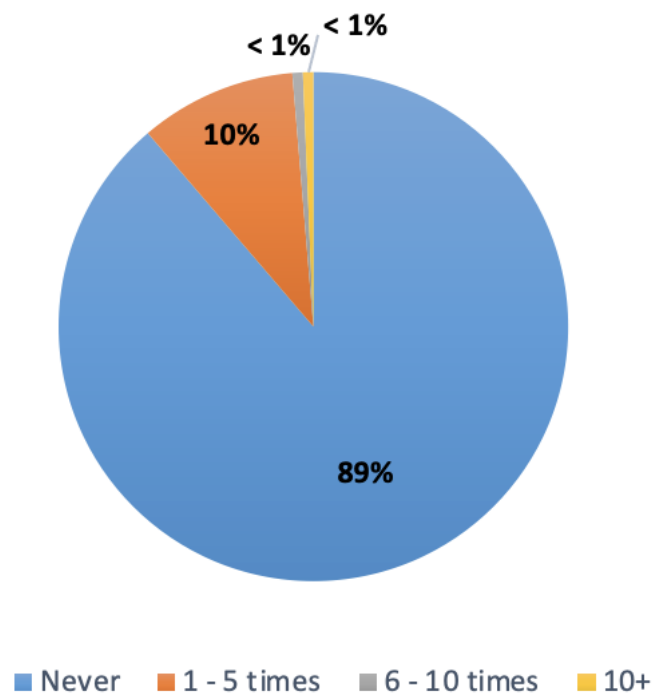


Figure 4.6. Respondents' previous engagement in council policy-making processes (n=151)

Fifty-nine percent of respondents thought that ECan staff might provide a particular place or group meeting for them in the decision-making process; only 6% disagreed. One point three percent of respondents selected 'prefer not to say' and did not want to share their thoughts. The remaining respondents (33.7%) had a neutral position or were not sure about this. Figure 4.7 below shows potential methods identified by respondents that could increase the efficiency of engagement for ethnic Chinese people. Respondents were able to choose

multiple answers. Most people thought that information being translated into Chinese might increase the efficiency of engagement. Results for the other three options (more information, social media and workshops) were quite similar to each other. Still, more than half of respondents thought that all of the methods might increase efficiency.

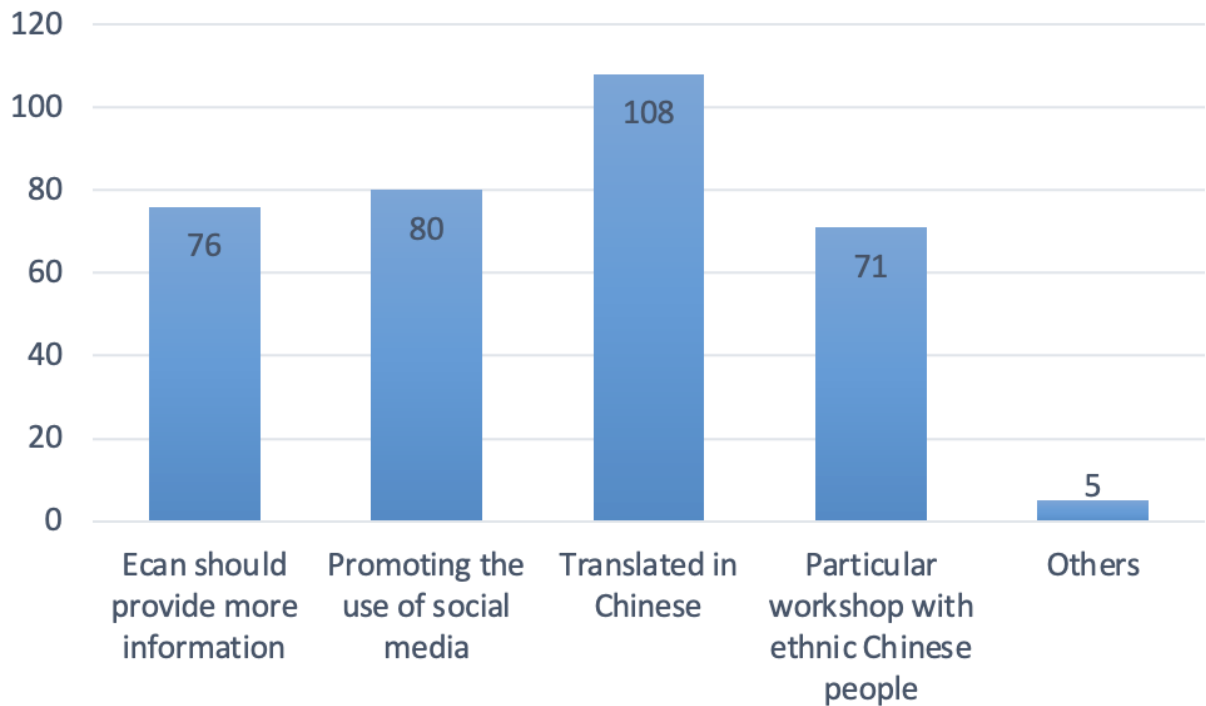
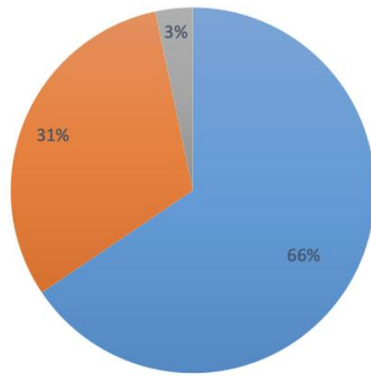


Figure 4.7. Respondents' suggested methods for increasing effectiveness of ECan's engagement. Respondents were able to select more than one option (n= 151)

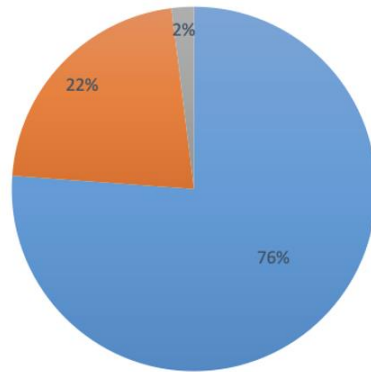
Five respondents chose the 'others' option. Two thought that the WeChat APP could be included in social media. One person thought more online activity or workshops could be a good option. One respondent thought that the government should consider the effectiveness of those methods and draw lessons from other countries who do well in this area (either staff or experts). The last respondent thought that the government might have more Chinese staff.

Figure 4.8 shows five pie charts that show the five potential options that ECan could do to increase respondents' awareness, so that they could easily engage in policy-making processes. More than 76% of people thought that ECan could apply methods b, d and e to make engagement easier. Sixty-six and 65% of people thought options a and c could make them engage easily.



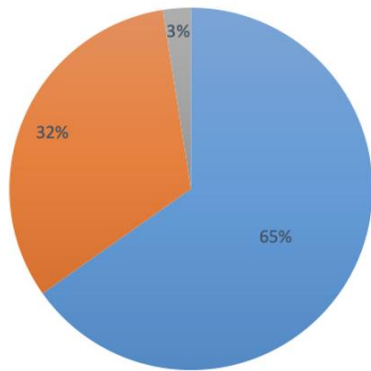
■ Likely ■ Neutral ■ Unlikely

a



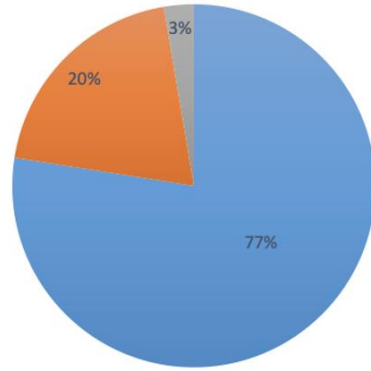
■ Likely ■ Neutral ■ Unlikely

b



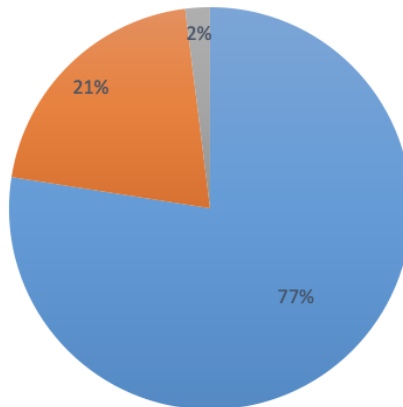
■ Likely ■ Neutral ■ Unlikely

c



■ Likely ■ Neutral ■ Unlikely

d



■ Likely ■ Neutral ■ Unlikely

e

Figure 4.8. Respondents' thoughts for increasing awareness of becoming involved in setting long-term visions for freshwater by five different engagement methods (n=151).

- a. Email newsletters in Chinese; b. ECan website having Chinese translations of water management policies and participation opportunities; c. Holding public meetings in Chinese; d. Having Chinese speaking people available to call at ECan; e. Having Chinese speaking staff attend Chinese cultural events to raise awareness and seek views.

4.8 Summary

The results shown in this chapter illustrate that more than half of respondents (58%) expressed worry about water-related issues. Ethnic Chinese people were more worried about water pollution and drinking water issues and were willing to be involved in helping to address these two issues. Only 7% of respondents had heard of Te Mana o te Wai, while 89% had not. Most ethnic Chinese thought Te Mana o te Wai might relate to drinking water, the second hierarchy (91% of respondents) and only 9% thought it might relate to the freshwater system (the first hierarchy). No respondents thought it related to the third hierarchy. Many people (41%) had heard of ECan, but only 19% knew what ECan does. Few people (7%) had dealt with ECan before and only 5% had heard of the Christchurch West Melton Water Zone Committee. Most respondents knew about water issues from social media. Ethnic Chinese people thought more people should be willing to be involved in policy-making processes but were generally not willing to be involved themselves. Almost 89% of respondents had never engaged in policy-making processes before. However, they provided some ideas for methods that could increase the effectiveness of ECan's engagement.

Chapter 5

Interview Result

Introduction

This chapter shows the interview data. There are six main themes that will be discussed: water issues that ethnic Chinese interviewees are concerned about; respondents' thoughts about ethnic Chinese engagement in policy making-process; advantages and disadvantages of ethnic Chinese engagement; engagement barriers; recommendations for future improvement; and methods used for engagement. The document review is included at the end of this chapter and shows seven documents have been reviewed and what the organisations have mentioned about public engagement, specifically, ethnic Chinese engagement.

5.1 Concern about water issues

The four leaders and the scientist discussed the water issues they were concerned about when living in Christchurch. Those issues can be categorised into two groups: water quality issues and water quantity issues. Firstly, all four leaders and the scientist expressed anxiety about water quality issues when living in Christchurch, especially drinking water quality. They all wondered whether the water was safe to drink from the tap or not:

We concern about this [drinking water], but just a little bit. Because water is necessary for us, we cannot live without water and air, But we might do nothing for water quality, that is why we just a little bit concern about water issues. (Leader 2)

When we went here, we have heard that there is no water tax in Christchurch, and can drink directly. I have never heard of drinking water directly in Taiwan, only drink after boiling it. We are pleased to come here to drink this pure water, can drink directly. We enjoy the natural resources here. The ethnic Chinese young children born here drink the water from the tap directly without a doubt. But for us who came from other places doubt to drink water directly. (Leader 1)

The kids in my school drink water from the tap, to be honest, I am concerned about this, for their health, not sure can be drunk directly or not. (Leader 4)

I filter the water before I drink currently, because I doubt the water quality here now. (Leader 3)

There were different levels of concern in their discussions. Leader 2 showed little concern about this, while Leaders 1 and 4 were concerned about this not only for themselves, but also for other people. Leader 3 took actions such as filtering or boiling water before drinking it. It appears that different ethnic Chinese people have different actions when facing drinking water issues. This shows the most important water issues they are concerned about and helps me to understand the hierarchy of Te Mana o te Wai as they understand it.

Some of the respondents thought that water quality was influenced by the earthquakes that occurred in Christchurch in 2011. One was concerned that the water pump might influence the water quality, while another was concerned about pollution:

After the earthquake in Christchurch, the water pump buried beneath the road, I don't know how long they have been buried, but the Christchurch City Council told us they will replace the old pump successively. I think the old pump might influence water quality. After the earthquake, the water was polluted, the earthquake occurred more than 10 years, in those years, the Council told us that we might boil the water before drink. (Leader 1)

After the earthquake, since the earthquake affected the water quality, such as water pollution. Since then, the government suggested us do not drink water from tap directly, we drink water from tap directly before. We have a habit of boiling water after the earthquake. (Leader 2)

People thought that the water pump being buried beneath the road might cause pollution. One reason was that the pump had been buried for a long time and might be damaged. Another reason was the earthquake. When these two causes were combined, respondents expressed their worry about drinking water quality and boiled water before drinking it.

Apart from the water quality issue, two leaders talked about the water quantity issues, for instance waste of water and people's attitude towards this issue:

When we realise the abundance of water here, we have to develop a habit that we cannot waste. Two or three years ago, there was lack of water, because the water use for gardening and car wash. The Selwyn District Council began a water tax plan here. The reason for this is to let us know to cherish the water resource. (Leader 1)

The first time when I was concerned about the water issue was the water tap leaking in the bathroom, I contacted the landlord about this, because I thought it was a waste of water. However, the landlord thought the water is free, but the repair fee was expensive. I was surprised, and I thought it was a waste of resources. (Leader 3)

As Leader 1 mentioned, it appears that when people realised the abundance of water in one place, they might not consider saving water. As a result, they tended to overuse water for gardening and car washing (Leader 1) or did not intend to repair leaking water taps (Leader 3). The government had noticed this, so had created a water tax plan to reduce the waste of water (Leader 1). This might increase people's awareness of saving water.

After discussing the waste of water issues that Leader 3 was worried about, she also talked about shifting power for Three Waters and the water pump as well:

I read the newspaper, it said the power of the local government about three waters, who is responsible for this. I read this news and discussed with a kiwi, the council, not sure whether ECan or CCC has put money such as pumps, many people disagree with transferring power to the government. The pump beneath the ground was replaced, so the money for replacing was come from local councils, rather than from the national budget. So the local councils don't want to transfer power to the government. I might not describe clearly; it's been a long time since I read that news. (Leader 3)

Maybe Leader 3 was not sure about who is responsible for the water pump: ECan or CCC. She also wanted to talk about the different power of central or local government, but due to ambiguous knowledge, she did not describe the point clearly.

The scientist expressed concern about other water-related issues such as “the water source of Christchurch, the water from Waimakariri River, stormwater infiltration impact, flooding and drought forecast, groundwater quality and quantity.” These points were not mentioned by other respondents. It was possible that these concerns came from the scientist’s work experience, so the general public would not consider this. It suggests that for the general public for example, the four leaders were more concerned about drinking water, water pollution and water waste issues. After comparing this to the survey data in Chapter 4, it suggests that the three most important water issues for ethnic Chinese were: water pollution, drinking water and waste of water. This might be different for local New Zealanders because they worry more about the recreational use of the water.

When we discussed the term ‘Te Mana o te Wai’, only the scientist had heard of this term; the four leaders had never heard of it. As the interview questions show, if the respondent had never heard of this term, I explained the term and asked the respondent about their understanding of the life-supporting importance of water. The four leaders thought that water is necessary to drink:

Water is necessary in our life. We are told to drink more water every day. The water not only can adjust our body temperature, because when we feel hot, we might want to drink water. Lose water means lose health. (Leader 1)

In addition, Leader 4 mentioned the tea culture and that it might be related to drinking water:

Spirituality of water, ethnic Chinese, for example, like drinking tea, if the water is not pure, with smell, then the cup of tea, tea culture will be influenced. For me, I like drinking tea and know something about tea culture. I find that when using water in New Zealand for tea, it tastes good. We don’t need to buy pure water in the supermarket, just from a water tap, boiling it, without smell. (Leader 4)

Tea culture was an interesting point as it is important in Chinese culture, even considered a treasure in Chinese culture. There is an old Chinese saying that when opening the door in the morning, one is confronted with the task of providing seven daily necessities, and tea is one of them (Li, 1993). “Tea and tea-related activities have penetrated various aspects of social life and take on unique cultural characteristics” (Li, 1993, p.75). According to Leader 4, Te Mana o te Wai might mean something about tea culture, because she thought this was important for ethnic Chinese. In terms of ‘treasure’, Leader 3 thought water could be a treasure to the next generation:

I think it is the treasure we could leave for the next generations. If we could reduce or mitigate water pollution, this could be a heritage for the next generations. (Leader 3)

On the other hand, the scientist had a more comprehensive perspective of understanding this term and was also the only one who mentioned an ecological aspect as the first hierarchy of obligations in Te Mana o te Wai:

Water is not only a resource, but also from an ecological perspective, sustainable for the future, a treasure. Combine with Māori, seems like a cultural way. New Zealand set this term as a principle. The importance of water, relationship between the environment and human beings. I think it aims to highlight the importance of Māori culture in water management. (Scientist)

Section 1.3 (5) of NPS-FM 2020 shows the three hierarchies of obligations in Te Mana o te Wai. According to the answers of the four local ethnic Chinese community leaders, their concerns were all at the second hierarchy: the health needs of people, such as drinking water, while the scientist mentioned freshwater ecosystems.

5.2 Interviewee's views on ethnic Chinese engagement

The previous section shows ethnic Chinese were all concerned about water issues when living in Christchurch, so they also wanted to be engaged in policy-making processes. When discussing the knowledge of public participation in policy-making processes, especially for ethnic Chinese to be engaged, the four leaders and the scientist thought ethnic Chinese engagement was important for different reasons. The first reason was that the government might hear our voice in the policy-making process:

I think it is important, because we live here, they are relevant to our life, we are happy to discuss and see how we could help the government, that would be great if the government can hear our voices. We live here so we have to try our best to participate, like the election, and everyone would be influenced by this. (Leader 2)

People thought ethnic Chinese engagement would be a 'win-win' situation because they live here and policies are relevant to their lives, so they are happy to provide feedback for the government. From a government perspective, the policymaker could adopt some valuable points from this community, including different knowledge of water management. Therefore, Leader 3 thought that ethnic Chinese engagement might bring different suggestions because ethnic Chinese people might have a wide range of knowledge of water management:

I guess different regional councils have different strategies for water management. For example, if the proportion of ethnic Chinese in this region is high, it means if we provide more opinions or feedback could influence policy-making. We might come from different parts of China, so we might have different backgrounds in terms of water types, such as sea, lake and river. For professional people, different people from different universities might have different research directions for water management, the water management here might draw lessons from the water management in China, the limitations of one research, might provide them with different directions, points or versions. For us, non-professional, who come from Wuhan in central China, we might identify different lake or river fish species more, but less know about ocean fish species. On the other hand, if someone comes from

the peninsula, for example, might know much more about ocean fish species. (Leader 3)

Leader 3 discussed some points here. First, she thought there was different water management for different councils and that ethnic Chinese engagement could influence policy-making, especially for a region that had a high ethnic Chinese density. According to Stats NZ, in 2018 the total population of ethnic Chinese in New Zealand by different regional councils was: 69.1% of ethnic Chinese in Auckland Region (ranked first), while the Canterbury Region and Wellington Region ranked second (8.7%) and third (8.6%), respectively (Stats, 2018). In this case, ethnic Chinese people in these three regions could influence policy making as their thoughts or suggestions are important in the policy making process. Leader 3 also thought that ethnic Chinese might bring different views on water management because of their different backgrounds and that the government (ECan) here should take advantage of ethnic Chinese for water management. This shows that ethnic Chinese people really want to be engaged with their advantages in terms of water management areas.

The other aspect of a 'win-win' situation for ethnic Chinese was social integration or that they wanted to integrate into society:

So the most important thing is we have to integrate into this society or country. I really hope that if we really like this country, this country give us welfares, good environment, we should have responsibility, or obligation to maintain the environment. Hopefully they can integrate into the society here, moreover, more people got their Permanent Visa last year, hopefully they could regard this country as their home. (Leader 1)

We encourage our next generations to integrate into society. I think it's good if we could participate in it. It shows we are happy to integrate into the society or country, because we will live here for a long time, and hope we will have a better life, so I think this is encouraged, help us to fulfil this by proving more information. (Leader 4)

This [ethnic Chinese engagement in policy making process] is important, because water is necessary for our daily life, water influences us. We might think could we decrease or change this influence through participation in the policy-making process. The policy maker also needs our feedback, opinions, might hear our suggestions. (Scientist)

People thought that they themselves or their next generations should integrate into society, so they encourage participation in policy-making processes and provide feedback to the government, then might have a better life quality. Indeed, for those who live here, especially those who intend to live here for a long time, this country might be recognised as their 'home'; they are the 'host' instead of the 'guest'. Engagement in the policy-making process is a way for social integration to occur and shows their 'obligation' as a host. If they are the host of New Zealand, they definitely want to be engaged in policy making process as much as they can, and water management is part of this. The topic of host and guest will be discussed in the next section.

5.3 Advantages and disadvantages of ethnic Chinese engagement

This section extends the respondents' perspectives on ethnic Chinese engagement. In terms of the advantages and disadvantages of ethnic Chinese engagement in policy-making processes, the four leaders and one scientist gave different points of view, mostly toward a positive direction. Firstly, the scientist thought "it can increase ethnic Chinese belonging to the community, as we are also the 'host', not the 'guest' or taxpayer', we might supervise the policy-making process." This is true, because when people recognise this place as their home, they become the host, which increases their belonging here. In addition, he thought ethnic Chinese engagement is also good for the government:

For the government, they can hear our voices, different voices, from the ethnic Chinese group, consider us when decisions are made, so they can consider more comprehensive. Ethnic Chinese participate in it, not keep away from it, can also promote multiculturalism. To be honest, I think the government might gain more benefits from ethnic Chinese than from research organisations. (Scientist)

Another leader agreed with this:

So ethnic Chinese received education locally, western country culture, they also have backgrounds with our ethnic Chinese thoughts, know more than other local residents in terms of our culture. If our generation could be a leader in society, it is like the combine Chinese and Western cultures together, this is multicultural. That's why many people are happy to stay in New Zealand, the inclusiveness here, different ethnic community groups here. If different ethnic community groups all participate in their policy-making process, could support the development of New Zealand, more comprehensive. (Leader 4)

People complimented the multiculturalism and inclusiveness of New Zealand, which attracted more people to come here. If people provide feedback to the government, as the scientist said previously, the government also needed the feedback and was happy to receive it, especially from different ethnic groups with different backgrounds. Leaders 2 and 3 thought that if the government heard their voices, then they might have a higher life quality:

I think it's good if we could participate in it. It shows we are happy to integrate into the society or country, because we will live here for a long time, and hope we will have a better life, so I think this is encouraged, help us to fulfil this by providing more information. (Leader 3)

All four leaders and the scientist added that ethnic Chinese engagement was good for the next generations and citizenship:

If next generations are born here, we encourage them to participate in government and political affairs. We discussed this in my community that we have no right to speak, for example, if I was elected as a councillor, I might speak from an ethnic Chinese perspective, I might show our opinions, based on the government. Others might think you are different because you love country, love community and provide your opinion, then you will be asked to do many things. Your suggestions are helpful. Participating in government and political affairs means power. (Leader 1)

For me, my daughter was born here and grow up here, I think we have to push them to participate in it, in politics or something, have their own place. (Leader 4)

People thought they might have no right to speak if their generation was not integrated into society. Therefore, they push their next generations to participate and believe it could be better if their generations were selected as councillors. In that case, they might speak for ethnic Chinese. On the other hand, the four leaders and one scientist all thought there was no disadvantage to ethnic Chinese engagement: "I think participation could only be positive, towards a better direction. No disadvantages I think." (Leader 4). The only disadvantage was that it is time-consuming.

The five respondents showed their different points of views about ethnic Chinese engagement. They continued to talk about their willingness to be engaged. All four leaders had never engaged before, but they were all happy to be engaged if given an opportunity:

There is no government email or let us know to participate in activities, for example, if the government sends our college an email, says they would like to hear our staff/students' opinions, we are happy to have a look and give some feedback. We can't check this on the council website intentional, because we have lots of work to do everyday, no time to check the website to see what we could do in terms of this. We are happy to be involved if needed. Because we live here, relevant to our life, happy to discuss and see how we could help the council. (Leader 2]

Not in water issues. We participate in discrimination meetings/workshops, multicultural, and equity. We also organise the introduction of the election. So we are happy to do something, like water issues, or environmental protection for New Zealand. Happy to do it, but don't know how. Like our medical department, immigration department, we know where to find, they speak to us as I mentioned before, water, no. Only know the good water quality in New Zealand. (Leader 4)

Based on these responses, the four leaders show their willingness to be engaged. However, reasons they cannot engage included that people were not informed by the government,

because they did not have time to check the official website to provide feedback; that there were no water-related meetings and workshops held the community; that people did not know how to be involved. These could be barriers that impede their engagement and will be discussed in more detail in the next section.

The scientist, who works for an organisation, talked about his work experience with engagement:

We [our organisation] help the government to know what is happening currently. How much water do we have, where are they come from, water quality, how quality will change in future. Support for government decisions in science area. Such as the effect on the water use, in river or lake, eutrophication, effect on ecological balance, water cycle, plants & fish. I never go to the council meeting, but we have meetings with government staff, the importance, how we can provide academic support.
(Scientist)

The scientist had provided feedback to the government many times through meetings, including forecasts for both water quantity and quality in the future, supporting the government with expertise.

5.4 Engagement barriers

So far, I have only considered responses from ethnic Chinese interview participants. In this section, I will also consider the responses of local government officials who are not of ethnic Chinese descent. All interviewees shared barriers they had identified, while leaders' perspectives came more from their life experience. Public officials also talked about views inside of their organisations.

Firstly, two public officials identified that cultural differences were a barrier:

I guess it is a question a matter of people being different, and how unfair it has to not pass the difference and get to know the person. Just like we do, I do with the other Pākehā, for example, to get to know the person. I think it's as part of our culture to break through it now in working with Māori and that's good under treaty. We have

done that pretty well for a long time. And we need to and culturally we need to break through too. (Public Official 1)

Identified challenge, one challenge was probably around communication and really bring in people from different cultural backgrounds or who actually in a different level of understanding about the theme or topic into the same page. (Public Official 4)

There's a large community of Chinese in the area. And I know across Christchurch itself, there are about 25, maybe more different ethnic Chinese groups. In this role, I have found it difficult to engage with the Chinese community. (Public Official 4)

Public Officials 1 and 4 had already recognised that different cultures and ethnicities might have different ways of engagement and that how to identify those ethnicities could be another barrier; those were breakthroughs they need. This is a general point because different ethnic people have different cultural backgrounds. In addition, it was difficult to identify ethnic Chinese people because of cultural differences, which lead to difficulties engaging with the Chinese community. Next, two ethnic Chinese respondents considered this barrier in the specific context of ethnic Chinese:

I think culture could be a barrier, because local residences are told to participate in the management process, but we, kind of are willing to accept the management, we might feel the policy from government, and policy from the government generally based on professional organisation, so the policy is good for us, what we only need to do is to implement, do not doubt about the policy to protect rights. (Leader 3)

Ethnic Chinese might not pay attention to the government, they more focus on sudden things, such as earthquake, COVID, but less focus on daily life, for those who are not working in this area. For example, we use water, but do not want to know where it comes from, or other water issues. (Scientist)

Leader 3 thought of ethnic Chinese people as passive recipients, preferring to follow the government's policy because most were in the general public, while policy makers might

have professional knowledge. Therefore, they thought the policy was good for them and hardly doubted it. The scientist thought ethnic Chinese living here ignore government because the stereotype tells them the government does not need their voices. For example, Leader 2 expressed the worry that “the government, either central government or local government, does not listen to us”:

Because the council might response for policy-related issues, the council might ask us, even we give some feedbacks, they might not listen to us, except many people give feedbacks together. For example, I remember they did a survey about increase land tax, I received this email and disagreed with this. Land tax increase every year since the earthquake, increase more than 10 years, land tax in Christchurch is higher than Auckland. And now water tax is coming, I think it is unreasonable. I think many people disagree with this, but it still increases at the end. (Leader 2)

Leader 2 gave us an example of land tax; she had participated in that survey by providing feedback to the government. However, the government might not listen to ethnic Chinese; hence she thought the government might not listen to them in policy-making processes either, unless many people participated in it. She added that:

I feel like the governments don't need us. If they do really more people to be involved, identified the issues and happy to improve, then we might think this government is perfect, but I feel like they don't need us. They decide by themselves, what they should do, water tax, land tax increases for many years. Feels like they did not ask everyone should increase land tax or not, increase it directly. Don't ask us whether agree to add chemical sanitiser in the water or not, just add directly. Feels like no difference if we have voice or not. (Leader 2)

She felt that the government did not need people to provide feedback and gave some examples: water tax, land tax and chemical sanitiser in drinking water. She thought the government does what it wants instead of asking people whether they agree or not. In this case, other ethnic Chinese might have a similar opinion, which could lead to them engaging less or even not engaging at all in policy making processes.

Similarly, Leader 4 thought ethnic Chinese might have no right to speak. However, she thought that especially the next generations should have a place to be engaged and give something to their 'second home':

There should be a place for us, we have the right to speak, our kid born here, grow up here, they thought this is their home, we can also educate them if we know more about this, water or policy-making process, to protect our environment, love our hometown, we live, we protect. Contribution to the second hometown. (Leader 4)

In terms of 'give and gain' raised by Leader 4, Leader 1 thought the volunteer opportunity in Western countries was good because it required people to devote themselves to something. He explained the priorities and then advocated 'one for all, and all for one'. This implies they are happy to be involved because of the devotion of ethnic Chinese in decision-making processes:

For ethnic Chinese, they might think they will lose time, money as volunteers. It is great for the term 'volunteer' in western countries. It means 'One for all, and all for one'. So you might find there are many volunteers. Help others. When everyone devotes or gives more in this country, you will get more benefits. Another barrier, when we do a thing, ethnic Chinese consider themselves first. Do I have time, order this at the very end, and to decide to do. This could delay some time. (Leader 1)

Next, both leaders and public officials realised the language barrier for engagement:

I know that election time, the local government electoral commission, they, the candidate, the information about the election is put out in different languages. I think when we put out when we put it out engagement material to further people for the public. Sometimes part of it will be done no other languages. So it might be something that we could certainly do, with our website, for example, it could be easier to facilitate that. I'd be surprised if it isn't. For example, the Chinese language. (Public Official 1)

I don't speak Mandarin or any other languages, associated with Chinese. So many of them are not confident in speaking English. So that's a barrier. (Public Official 4)

Because the language barrier, and the lack of local culture, so we don't know where to get water-related information. For those who might have difficulties to read English, and speak, could be a barrier, so they fear to show their opinions. If we are told about participating in policy-making process with the translation version, more people could join it. For me, as a parent, for example, my kid is doing an election, encourage more parents to be involved, the Asian group has a high proportion in my kid's school, almost 50%, but their parents prefer not to be involved, the main reason might be the language barrier. (Leader 3)

As I discussed before, we have lectures, one of the barriers for ethnic Chinese people went here was the language barrier, it impedes many things, such as integrating into the society, because of language barrier, don't know the local culture. According to my parents, I found they are willing to integrate, but the language barrier, makes them know less. (Leader 4)

Two points were mentioned in terms of language barriers. Public Official 1 talked about election engagement and that, because of a lack of language information, many people cannot be engaged. Public Official 4 had a similar point and added another reason: that some ethnic Chinese people were not confident in speaking English, so ethnic Chinese people cannot be engaged. Leader 3 also mentioned that people were afraid to state their opinions because of the language barrier. She also highlighted potential improvements such as informing ethnic Chinese of participation opportunities and translating information. She also talked about an example of engagement (election) at her child's school, where language barriers prevented parents from being involved. In addition, Leader 4 stated that ethnic Chinese cannot gain enough information because of the language barrier, but that they were willing to be engaged. Some literature in Chapter 2 showed that language barriers impeded multi-ethnic participation in decision-making processes. Combined with the results here, this suggested that ethnic Chinese people are now facing this barrier and waiting for this problem to be solved.

Public Official 2 recognised the lack of knowledge of their staff in the organisation:

Challenges, like lack of knowledge of how, to what are the effective ways to engage with communities other than Pākehā, or European Pākehā, and Māori. So we don't have a great knowledge of what are the methods and the ways in which we can communicate and engage with Asian communities or our Pacific community, and the timeframes that we have to enable it, so that's a challenge as always, what are the methods that work, and how much time have you got. (Public Official 2)

Firstly, Public Official 2 mentioned knowledge for engaging with other communities was insufficient, caused by the lack of methods used for engaging different ethnic groups. However, the timeframe within which they were asked to do this was a challenge for them. Public Official 2 pointed out that: "So we don't specifically target ethnic groups." That could be an issue, because NPS-FM has highlighted the importance of engaging with communities and tangata whenua. Improvement is needed for better engagement with communities in the future. Public Official 2 also shared a thought about how to overcome this challenge - education:

I think for us, education. So what works, what are the ways that I'm particularly in Canterbury, Asian and ethnic communities want to engage or want to see information or provide information, what works for them and what doesn't? (Public Official 2)

Clearly, staff education might solve the lack of knowledge problem and allow staff to find an efficient way for engagement. However, this might bring another barrier - time:

Time, I think, personally, when I've worked in projects that have looked at translation before, it's the time to translate compared to the time that we have, because sometimes projects get through really quickly. So the longer time is always good, because it means that we can add more methods. But when we've got when we're really short on time, that really means things like translation. We get really inhibited on whether we can do it in time or not. (Public Official 2)

Public officials wanted to have more longer time, because they could add more methods or educate staff; however, the fact was they were only given a short time. This was a barrier within her organisation. Furthermore, the other aspect of the time barrier was the impact for short- or long-term plans on communities:

The main challenges, probably education about each of the facets of what we do, how they can affect communities and the short, medium or long term because some of the stuff that we work on in this organisation is an immediate effect on the community. (Public Official 2)

Public Official 2 then described this time barrier in more detail, using examples:

And when you look at the planning side of the organisation, for us to notify of a new plan or reviewed plan, we have a statutory process we have to go through. So from the time that we consult on that plan. It can be three to five years before it becomes operative, based on the process, we have to go through hearings committees and panels to hear the feedback from the community. The recommendations from staff then act upon that within the documentation and then go through the second round of submissions and then have an independent hearing at the end, that I'm just recently that process has changed to then that plan becoming operative. So there's quite a distance of time. (Public Official 2)

Time was spent in a statutory process for a new plan and it could be three to five years before it becomes operative. It was a time-consuming process, but could not be avoided. During the process, their organisation might seek feedback from communities and have a hearing at the end. This was a complex process and this was a barrier they were facing. Public Official 2 also mentioned that it was hard for staff to know the impact of the information or when they should make changes on the ground. Only time will tell.

That's really hard for some people, including our own staff to understand the impact of the information that they give us and when it kicks on when we would be able to actually make a change on the ground. So we have this wide range of timings. (Public Official 2)

Public Official 2 explained further, with examples:

And for instance, if we look at something in the middle ground, a long-term plan, which the councils are required to do every three years of how we will financially spend money to support the needs of the environment and infrastructure and their communities and the ways in which we need to provide support as an organisation. We would engage on that six months, we'd start and probably start developing the engagement on that six months prior to going out to the public and then you have a very short timeframe of talking to the public of about six weeks. And then a very short timeframe, of decision-making with the councillors who are the authority to sign that off. And then that's operative for three years. And then you do it again. There's a huge range of time in there, that can be a challenge in the education of all, if I give you my feedback and my thoughts, when am I actually going to see that change on the ground. (Public Official 2)

Public Official 2 said the timeframe by giving the example of three years in the middle ground of a long-term plan. The organisation started engagement six months prior to three years, then talked to the public. The next step was decision-making, with the councillors to sign off. It was clear that these processes are time-consuming but cannot be avoided. The time-consuming barrier was useful for people to understand why the government cannot implement new plans faster.

Leaders might not know why the government enact a new plan so slowly; this was an awareness barrier or lack of knowledge/expertise. Leaders 2 and 4 thought the information should be disseminated so that they could learn more about public engagement in the policy-making process or water management. Otherwise, they had no ideas about engagement:

The key point the awareness, people might aware water management if they feel the problem of drinking water, smell, or colour. Panic but don't know what to do next. But some local residences will, send email to the government, to complain about this. (Leader 2)

So we have lectures in a specific period, however, there is no water-related lecture from government staff for us, this is a key point, no one speaks to us water-related issues, such as how to deal with wastewater, the source of waterways, how it goes to our house. As a non-professional person, if you ask me about concern on water, I could only say the good environment, but the lack of deep understanding. So we are happy if there are professional lecturers or experts who speak to us, it can increase awareness. (Leader 4)

Leader 2 gave an example of drinking water smell and colour being different than before. She thought local residents knew how to contact the government to complain, but that she or her community members did not. Leader 4 wanted to have a special meeting or workshop about water as it might increase awareness. Public Official 4 thought language barriers were relevant to awareness barriers, because people did not know they could be involved if they had a language barrier:

Language, barriers, not understanding processes. And what's involved, lack of understanding, lack of awareness that they can be involved. So they actually it's about civics, they don't understand that they have a right to be involved. (Public Official 4)

The other aspect of awareness barriers was the ambiguous concept of governments and their relationships here:

From our perspective, because we come from China, there is no difference between council and government, because when we translate these two words in Chinese, they have the same meaning. I don't know the relationship between regional, city and district councils. I think as a new immigrant, we have the right to vote, to participate in the policy-making process, but we don't know how. (Leader 3)

Leader 3 wanted to participate, but due to having an ambiguous concept of the process, she did not know how to contact the government or participate in the policy-making process. Meanwhile, she recognised the importance of engagement, especially on policies of the natural environment, but said that due to lack of information, she could not be engaged:

There was a big issue, and I would like to participate to know more, but I don't know where to ask, how to contact them, who should I contact. We know the importance of the natural environment, but we don't know where to get this information. In addition, because of the language barrier, and the lack of local culture, so we don't know where to get this information, we cannot say concerned about this when we first time came here, I doubt the media could notify this, because this is not a big issue, to attract our attention. (Leader 3)

5.5 Recommendations for future improvement

In the previous section, many engagement barriers were identified. In this section, respondents talked about recommendations for future improvements, from both leaders' and public officials' points of view.

Firstly, I will discuss improvements to reduce the cultural difference barriers. Some people acknowledged the multicultural society in New Zealand and gave some opinions. Public Official 2 acknowledged the multicultural society and that they need to grow more and look at how they engage with all ethnic groups:

I think there's heaps. We're a multicultural society, not only in New Zealand, but in Canterbury as well. And I think that as an organisation, this is an area where we need to grow more and look at how we engage with all of our ethnic makeup. Not just Māori and New Zealand Europeans, and I'll be the first to admit that we are not experts in this area, and we would value information on what are the best ways to do that moving forward. And how much time and what is a real insight of what works and what doesn't work so that we can get better. (Public Official 2)

Public Official 2 realised their organisation had a long way to go in terms of engaging with wider communities. Their organisation would try their best to move things forward. Public Official 1 came from the same organisation and pointed out an outreach for the future: sister city programmes, so that different ethnic groups would be engaged:

And of course, it's fair to say I've had a good number of these conversations with councillor Jimmy Chen and the work multicultural work that Jimmy has done for

many years, but I don't I think it's fair to say that it would be good for our council now to have a similar outreach to what the likes of the sister city programs and I'm from an environmental, environmental basis too. (Public Official 1)

Public Official 4 thought “pre-engagement and follow on” was a way to make improvements. Leader 4 had a similar comment on this regarding what their community hoped the government could do for them:

So I would suggest small groups, small opportunities, going to where people are, rather than expecting them. So going to the churches, going to the community groups. Having someone that speaks the language, all those. And going to where people are in. Council goes to them. So as a government agency, I prefer to have pre-engagement with communities. And the government should go to them, but there are basically, I think if we're serious about wanting to engage with different ethnicities, we should be putting more resources into that. Communications are very important and we do develop effective communication. Keep emphasising on pre-engagement and communication, open communication proactive connection engagement with ethnic communities. (Public Official 4)

Public Official 4 pointed out pre-engagement for communities. Communication was important when the government wanted more different ethnic people to be engaged. One good thing she pointed out for engagement was “Going to where people are, rather than expecting them come.” If the government overcame this previously-identified barrier, the next thing they could do was go to where the people were. In that case, more and more people would be engaged.

In terms of communication, Public Official 2 shared some challenges but explained that they could be addressed through communication:

I think the challenges for us we've kind of talked about is like, how do we access. How do we make it accessible? What are the methods that challenges understanding the methods that may work, the level of knowledge and understanding that as they're already around the topics that we need to talk about? And how much isn't so that we

can engage where do we start a conversation from? But I think the main one is really understanding how to access the communities in Canterbury. And what methods would do those communities need us to do or the ways that they need us to be to make it fully accessible for them to interact with the topics. (Public Official 2)

One of the challenges Public Official 2 mentioned was how to access people. Communication might address the access problem. In addition, pre-engagement (learnt from other government organisations) was also a good way to address this, as they might draw lessons from other's successful engagement.

Leader 4 made a similar point in terms of communication: she hoped that the government might give them feedback and let them know how everything is going after the engagement, rather than hearing nothing after the engagement:

I think the government cannot say okay we're finished these meetings, full stop, no follow up. So we hope they always follow up through emails or will reach out us again when they get the update, will communicate the update back to us who came in attended or engaged with them. Hopefully we are ongoing, not just one-off. (Leader 4)

The other recommendations for solving the cultural differences mentioned by Public Official 1 can be divided into three ideas: first, it is good to have all cultures involved; second, we might learn a lot from other cultures; and third, it is good to see staff from around the world with different cultural backgrounds:

In my experience with city council, there's a whole issue of wise use of water for example, and careful use of water. That would really be helpful for people, to be helpful for councils to understand water use by different ethnic communities different as you know, different ethnicities. Sometimes there are a large ethnicities have large families, a higher threshold of water availability for potable water. I think from Environment Canterbury, it would be good to have all of our cultures involved with that, with the environmental restoration work that we're doing. So everyone is involved start before the understands and as invite and leaders are invited to be

involved and they can be involved. So we that way we have by far the best effect.

(Public Official 1)

I think somehow just like we are learning from water management, we're learning a lot from Ngāi Tahu and tangata whenua ways of in the hope, the culture and approach to water. I'm sure we stand to learn a lot more by learning from other cultures too. And that's something we should develop. (Public Official 1)

There are some of the staff at ECan would be from south-eastern Asian different ethnic groups. So there is a number of staff in the different areas I've worked with. So that would relate to a staff policy of ensuring that there's no discrimination for example, but that people are qualified for the job and it's in my personal view, it is good to see. It's nice to see they're coming through. (Public Official 1)

To deal with the awareness barrier, education for both staff and the community could be a good option:

The government staff might disseminate information among ethnic Chinese group, through meetings, lectures, workshops. Such as drought, flooding, water source, scientific knowledge, to increase their awareness. Let them know the importance of the water, so they might participate, give feedback, suggestions, hear the voice from them. (Scientist)

It's training, definitely, training. The ways in which we can ask those groups, or those key people within those groups best ways to move forward and who are those people that we could ask. It's around where are the connections as well. Who can we connect to or talk in a safe space to. Just be in a safe space as a council that we can ask but also as a community that they can ask of us to understand the best methods to use based on the topic that we're talking about. (Public Official 2)

I think we have to start with education on the culture. I'm going to be free frank culture, but also who we need to talk to in the community to understand how to engage with them. (Public Official 2)

Education. As young Chinese grow up in a country, they are taught, and they see the way the government works, that democracy works. So I think it's through education.
(Public Official 4)

As the scientist suggested, the awareness barrier might be overcome through meetings, lectures or workshops among the ethnic Chinese community as methods of education. Public Official 2 thought that training among staff created a connection between government and communities for better understanding. Public Official 4 thought they could educate young people. In addition to the education of youth, Leader 3 thought education of children could be more effective than educating adults or parents:

Our kids were educated at school, if someone let them know, so they will talk to parents after going home. From parents' perspectives, we listen to what they said to us. Provide a direction. One more thing, I think if the government could arise the enthusiasm for ethnic Chinese, for example, education for kids, or activities, parents are willing to accompany. The parent will also be educated in the activities with their kids. However, if the activities only held for parents, they might not free, have no time to participate. (Leader 3)

Leader 3 shared an interesting thought here. She pointed out that parents were more willing to be involved if their children led them to be. When children were educated through different activities, parents were more likely to participate in these activities. Consequently, the awareness of both parents and children would be improved.

In terms of channels for disseminating information to increase people's awareness, people thought the government might improve engagement through email, surveys, meetings, TV channels, translation information and WeChat:

So the leisure time for use to read news is limited, if there is no information in my email, or my focus, I might say I do not consider about how can I do for this. If the government send our college an email, said they would like to hear our

staffs/students' opinions, we are happy to have a look and give some feedbacks.

(Leader 2]

If there are more translated resources for them, water issues, for example, more Chinese translated resources to disseminate, I think they might provide more helps in terms of environmental protection. The policy-making also should be disseminated, communication or discussion more, lectures or workshops. I hope you or others could do the connection, so we can transmit it to more members. (Leader 3)

I think the survey, let us answer those questions, as a leader of community organisation, we could give our members to do this, give the government feedback.

(Leader 4)

We've identified that holding meetings for communities where they are going to where they are and not expecting them to come to us. Going to them and providing food. And having sit-down talks, sitting around in an informal way, and engaging in that way. Using the channels like WeChat, the newspapers, sometimes you see in Chinese language, the newspapers, sort of that are put around, that would be opportunity for articles about this. (Public Official 4)

There are obviously some TV channels that are Chinese speaking, might say that through the engagement. (Public Official 4)

So I think positively, we recognise that and we're doing something about it, but on the other side, more resource needs to be put into that. That's staff time and money to communicate, through publications, through digital things, that sort of thing, developing ideas that will connect with people. (Public Official 4)

As the quotes above show, many people shared their thoughts about these channels of communication. Leaders especially suggested that they and their communities want to be engaged. The government might consider those channels to increase engagement efficiency provided by leaders. Specifically, Leader 2 thought it would be good if the government emailed her about engagement information so that she was aware of engagement. Leader 3

thought a connection was needed to convey what the government wanted them to do and that better translation resources should be provided. Leader 4 thought the government should let their communities do the survey and provide feedback. Again, it was commented that a translated version would be better. Public Official 4 said that holding meetings with food might attract more people to attend. They also mentioned other channels such as articles translated into Chinese on WeChat and newspaper and TV channels about engagement. They added that their organisation was doing something about it, but still needed more time, money and resources; again, there was a long way to go.

Leader 1 thought building trust could improve engagement. This recommendation could be categorised as a channel. He thought that 'knowing each other' was a way of building trust:

Know each other through events, activities. We might educate next generation how to 'give' to this country. For me, I live in Lincoln town for a long time, many people know me here. Assemble ethnic Chinese people through organisation, tell them policy, plan and how we can help the government. (Leader 1)

Leader 1 has lived in the Lincoln township for a long time, so many people in Lincoln know him. If he could represent the connection between the community and the government, that could be an efficient method for engagement: community members might speak their concerns to Leader 1 and Leader 1 might speak to the government about members' voices. In addition, Leader 1 might also bring the government's thoughts to the community. More similar representatives were needed to improve engagement.

Finally, Leader 1 and the scientist thought funding from the government might be used for future improvement:

I think through local Chinese community organisation and church. The connection between community organisation, church and the government. The government might provide funding if you establish organisation well, encourage you to do this. (Leader 1)

Might provide small gifts for those who participate in meetings, lectures or workshops, which might interest them. (Scientist)

Indeed, funding was a good way to promote engagement, because people are happy to gain something from participation without cost. However, it might be unrealistic for some government organisations to offer such funding.

5.6 Methods used for engagement and measurements:

This section shows the methods used for engagement and their measurements from public officials. Public Official 1 stated, just ask people whether or not they voted:

When people can become involved, you know, there may be a way and I don't know how that is how the ethnic voting patterns are broken down. Just sort of start ask to whether people voted or not. (Public official 1)

Similarly, Public Official 4 thought increases in the number of submissions from meetings could be a measurement:

I guess the only way to measure it is an increase in the number of submissions that we're hearing from other ethnicities. That is the only measurement. The staff when they go and do community group meetings, they would record numbers, so numbers attending meetings, and also through the submissions, they've asked people to identify their ethnicity now. So when they write into Council, there's a form that people use, and they will tick box of their Māori Polynesian, Chinese, whatever. So that's another way to record whether that engagement has been successful. More people doing it. (Public Official 4)

As Public Official 4 discussed, their organisation recorded who attended each meeting and noted their ethnic groups to identify respondents' ethnicities. Public Official 4 also added that:

Council would run community meetings. We have a multicultural advisory group, we have a cultural committee, in a multicultural advisory group is made up of leaders from different ethnicities, and they kind of act as a channel for information. So we then go back to the communities and talk about so they will meet the Council staff

will talk to them and then give them the information and then the leaders will go back to the communities and share that information. The Council also has the facility to translate into 16 different languages. So that's been brought in through the actions of the multicultural committee to make sure that people can read things from the council in their own language. (Public Official 4)

Public Official 4 talked about what the council had done for different ethnic group engagement, including a new group and a new role and how they operated in the council. Translation was done by the council to ensure people could read things for engagement.

According to Public Official 2, method and measurement might depend on the project. It was hard to measure effectiveness because there were many things they had to consider:

I think it's dependent on the project so it's a case-by-case basis. Again, it will vary from case-by-case, so it's dependent on the project, the purpose of that project, the scope of what needs to be discussed with the community, and the outcome you're looking for. What is the topic being discussed? What is it being discussed about that topic? How much does the community know about that topic, and have already provided their thoughts through various channels so that might be they've contacted us directly with these thoughts. Because that affects what methods we would use to engage those communities to ensure that we hear their voice. So it's really hard to say what's effective because it's dependent on what the project is that we talking about. (Public official 2)

There were other methods used for engagement, including face-to-face discussions, territorial authority groups, online tools, traditional media such as newspapers, social media, such as websites, Facebook, Twitter and LinkedIn and forums or groups:

So we do a combination of face-to-face. We will also do public drop-in sessions, public meetings, and will show up at public events. We might hire a stand at a local fare on the A&P show, or if there's a cultural event that was appropriate to the topic, we're talking about it we could look at hiring space there. (Public Official 2)

We go and use territorial authority groups as well. If we were talking about a topic and a particular region or area of the region, for instance, Waimakariri, we would go to the Waimakariri Council and say what are the groups that you have that we should be talking to and they'll say you need to talk to our youth council, you need to talk to our community boards, you need to talk to our councillors. So we'll incorporate that into how we engage and then we'll look wider as well. (Public Official 2)

We use online tools, so websites we've got what we call engagement HQ, which is our Have You Say site. We also use the Environment Canterbury website to provide information. (Public Official 2)

We use traditional media so like use the newspaper, use websites that you know like Stuff newspaper websites. We use social media quite a bit now as well. We have a number of channels, so Facebook, Twitter, we use LinkedIn for more of a recruitment tool for the organisation. We also set up forums or groups, working groups will have particular projects and they can be cross-organisation, or they can be cross-community just dependent on the project and what that project is trying to achieve. (Public Official 2)

We have workshops with the local community, field trips, campaigns about stormwater. We also have council meetings, the public can speak, and make recommendations to councils. The Committee also has a newsletter, media articles and website content. Public can make deputations to committees and general public contributions. (Public Official 3)

Public Officials 2 and 3 work for the same organisation. Although they mentioned many methods undertaken by their organisation to create engagement, the efficiency of the engagement was still ambiguous: only time will tell. Fortunately, the government had noticed the need for new engagement methods for ethnic groups and had applied these methods. The next step was to examine the efficiency, so that they could decide which methods were best for different ethnic groups.

When talking about public engagement in policy-making processes, Māori engagement had the highest priority because of the Treaty. Public officials shared their experiences engaging with the Māori group:

So starting with the policy statement and our work under the Treaty of Waitangi. That's the important part. I think it is good that we have Māori representation on that committee. I think it's fair to say that Environment Canterbury and the Regional Council, have pushed very hard on the issue to ensure we do have Māori representation. We currently have two people from Ngāi Tahu and advises to us, and they can vote on committees. So we're expecting the bill before Parliament and Ngāi Tahu bill, Māori representation goes end. And that's a sign I think, that our council have supported that. And it's also fair to say that the previous the council when it was run by commissioners, that the government had a Māori and Ngāi Tahu representative on council at that time and after that, during the those proximately several years. (Public Official 1)

Public Officials 1 and 3 thought that there were Māori and Ngāi Tahu representatives in the council. The council also pushed hard to ensure these representatives could speak for their community by providing feedback and having the chance to vote. The council supported the representative for the parliament bill.

In terms of representation and the bill, Public Official 4 continued:

I think different for Māori because I think Māori have always had a very strong relationship with water in the land. And so they're more interested in water issues, through their iwi through their hapu, through the tribe, tribal affiliations. You'll see ECan, there has been a bill that's gone, it's passed its third reading just in Parliament. Obviously, bring it to representatives from Ngāi Tahu on the council. And one of the reasons is that so they don't have to be involved via the rest of the councillors are, they appointed by the hapu and iwi. And one of the reasons given is that Māori has also always had a strong connection with the land and the water. And because of the Treaty, and what the Treaty said about Māori rights to water to gather food, I think

Māori have a stronger sense of wanting to be engaged in this issue than perhaps other ethnicities do. (Public official 4)

Public Official 4 discussed how Māori had a strong relationship with water, then talked about the bill and how it brought representatives from Ngāi Tahu to the council. These representatives did not have to be involved as the rest of the councillors were, but were appointed by the hapu and iwi. This meant the representative had power. Māori have a stronger sense of wanting to be engaged than other ethnicities, which is why and how the council engaged with Māori.

Finally, Public Official 2 mentioned 'tikanga' (Māori customary practices or behaviours):

I think it really is around tikanga. But you know what are the listings that have emerged from the public engagement as you really need to understand your communities cultural maker and how that works. What we learn from engaging with our Papatipu Rūnanga, so there are 10 Rūnanga across the region is we really need to understand their experience. And the history of NZ for them and their tikanga or their cultures. Ritual is such a wrong word, but the standard cultural practises that they use in order to build trust in safe space and mana with each other, like we need to ensure that across any ethnic group that we understand that we build that into how we engage. (Public Official 2)

Public Official 2 talked about staff and how they had to understand communities' cultures and how they work; to understand communities' experiences. Staff could consider cultural practises when building trust and mana with each other; this was learnt from previous engagement with Māori groups. In terms of methods for engaging with other ethnic groups or the ethnic Chinese group, there is a long way for them to go. This research combined ethnic Chinese community leaders' perspectives and public opinions (survey data) to identify an effective engagement method.

5.7 Review existing documents

This section shows the documents that might be relevant to public engagement and ethnic Chinese engagement. Table 5.1 below consists of document name, published date, organisation, how these documents describe engagement with public and whether or not these documents mentioned ethnic Chinese engagement. I reviewed seven documents, all of which mention engagement with Māori because they are treaty partners and are important to water management. However, none of the documents mention anything about ethnic Chinese engagement. Some documents use words such as ‘stakeholders’, ‘local groups’, ‘local communities engagement’. These groups consist of different ethnic groups, but they do not specifically target ethnic groups. This is important to note, because there is no ‘one size fits all’ in terms of engaging different ethnic communities. A future improvement or direction for those organisations could be to do better at engagement with different ethnic groups.

Table 5.1. Summary and review of key policies and objectives from existing documents relevant to this research. All documents are publicly available on each organisation’s website.

Document name	Date	Organisation	Engagement with public	Ethnic Chinese engagement
Canterbury Regional Policy Statement	2013	ECan	Mentioned engagement with papatipu rūnanga and Te Rūnanga o Ngāi Tahu in Chapter 2, 2.1 is Tāngata Whenua.	No. Only mentioned the identification of historic cultural and heritage landscapes of cultural diversity and includes Chinese in Policy 13.3.3.
Iwi Management Plan	2013	Mahaanui Kurataiao Ltd	IMP1.6 (a). Engage with Papatipu Rūnanaga as the representative bodies of tangata whenua who hold manawhenua. Issue K1: The need to recognise manawhenua, and therefore engage with the appropriate Papatipu Rūnanaga. Issue K4: Working together with agencies, communities and people with responsibilities and interests in the protection of natural resources and the environment.	No

MW 6.2 (c): Ngāi Tahu and the wider community can engage with waterways for cultural and social well-being.

CWMS	2009	ECan	Mentions out of consultation and engagement with stakeholders in Section 3 (Achieving the vision). In Section 7 (Implementation – Next Step), stakeholders will be engaged throughout this process and the results will be written up in progress papers, which will be published on the website and notified through the e-newsletter (p 58). During the programme development process, ZC members will be actively engaged with the community in this period (p 127).	No
Christchurch West Melton Zone Implementation Programme	2013	ECan	3.3 Better integration of plans and collaboration between agencies and groups. 3.5 Local people are involved in improving water management.	No
Land and Water Forum Commentary on Implementation of the NPS-FM	2017	MfE	Ensure adequate opportunities for public participation and engagement from start to finish (p 12). Most councils have increased the level of public engagement on freshwater planning, including the involvement of iwi, stakeholders and the community (p 12). Councils need to be aware of participants' willingness and ability to engage with their wider networks and help them if they need it (p 14). Better opportunities for iwi engagement with councils and collaborative groups are needed (p 16).	No
NPS-FM	2020	MfE	3.3 (3) Every long-term vision must be developed through engagement with communities and tangata whenua about their long-term wishes for the water bodies and freshwater ecosystems in the region. 3.4 Tangata whenua involvement.	No
Christchurch Multicultural Strategy	2017	CCC	Priority actions for Goal 1: The Council builds and maintains relationships with all communities and their organisations. Allocating enough time to communicate and engage with all communities (p 15). Priority actions for Goal 3: enable and promote participation in civic life and public decision-making by people from all communities. Design with culturally diverse communities, targeted civic engagement programmes to improve access to and participation in civic life and democratic processes (p 15).	No

5.8 Summary

Interview results were categorised into six different themes. First, ethnic Chinese people discussed the water issues they were concerned about (water quality and quantity issues). Respondents showed more concern for drinking water and water pollution. They thought Te Mana o te Wai might mean drinking water, tea culture and treasures for generations. They then talked about their points of view of ethnic Chinese engagement in the policy-making process; specifically, they thought ethnic Chinese engagement in the policy-making process is important and will lead to a win-win situation. Further, engagement helps them and their next generations integrate into the society. They shared some thoughts about the advantages of ethnic Chinese engagement and stated that the only disadvantage was that engagement was time-consuming. Next, all of the respondents talked about engagement barriers such as cultural differences, language, time, awareness, lack of staff and ethnic Chinese peoples' knowledge.

After discussing the barriers, they all provided some potential improvements for future, such as the need for outreach from the organisation and staff training to address cultural differences; education in the community; and applying pre-engagement methods. Meetings, lectures or workshops among the ethnic Chinese community might address awareness barriers and education for both community members and children was suggested. Using different methods such as email, surveys, meetings, TV channels, translating information and WeChat could also increase people's awareness. Other recommendation points included building trust and empowering ethnic Chinese.

The next section discussed the methods and measurements that public officials used for engagement. Respondents also shared their engagement experiences with Māori groups. The final section provided an overview of existing documents. A key finding in those documents is the absence of ethnic Chinese engagement.

The next chapter discusses the meaning, importance and relevance of these results when combined with literature.

Chapter 6

Discussion

Introduction

The previous chapters analysed the data collected from surveys and interviews and reviewed existing documents. This chapter will discuss the study's findings, showing their relationships with the literature and the research objectives. This chapter consists of three sections by the research objectives and a fourth section which highlights some practical implications of the research findings. Specifically, this chapter outlines the meaning of Te Mana o te Wai to ethnic Chinese living in Christchurch, identifies and evaluates ways of engagement methods for the regional council (ECan) in developing long-term visions for freshwater management with multi-ethnic communities and reviews existing documents to identify potential best-practice engagement practices with the ethnic Chinese group. Then, I have distilled out some practical implications for local authorities and central government with rationale or explanation when engaging with the Canterbury ethnic Chinese community from this research.

6.1 Objective 1

Explore what Te Mana o te Wai means to ethnic Chinese living in Christchurch

6.1.1 Community values

Firstly, from the interview results there was one important point that leaders talked about (refer to Section 5.3) regarding the role of 'community' values in Te Mana o te Wai: that the leaders themselves and other new migrants are 'hosts' of this country, rather than 'guests'; they are part of a multicultural community and think of Aotearoa as 'home'. Gale (2004) shows that ethnic minority groups can play an outsider role in planning in the UK because of the construction of the nation as a homogeneous bounded cultural unit (refer to Section 2.3.1). In contrast, some ethnic groups in the US showed a strong motivation to become engaged and wanted their voices represented in community decision-making because they did not want to be outside the process (Beebehaun, 2004). New Zealand is a multicultural

society with more inclusivity in decision-making processes. My interview result suggests that ethnic Chinese leaders do not want to be 'outsiders' in the policy-making process because they feel they are also host of this country. In addition, they talked about 'gain' and 'give'. For example, they think they have to 'give' this country something, because this country has given something for them. Therefore, they are happy to participate in decision-making processes because it is something they can 'give' to this country; they show their devotion to New Zealand by supporting the local government in policy-making processes. This point was very important in terms of the role of 'community values' in Te Mana o te Wai for the ethnic Chinese group.

According to my survey data, 58% of respondents expressed worries about water-related issues, while 34% did not. For those who worried about water-related issues, 37% worried about water pollution issues and 31% of answers were about drinking water quality. These two water issues ranked first and second among their answers; this implies that ethnic Chinese living here consider or are concerned about water-related issues. My interview data was similar to the survey data for this point. Five ethnic Chinese interviewees expressed worry about drinking water and water pollution issues. These two issues had the highest priority because they come to mind first when I asked the question. In this case, the values of Te Mana o te Wai for ethnic Chinese living in Christchurch might be relevant to the need for water in daily life, especially for drinking water and water pollution issues. Indeed, literature has shown there are drinking water issues in China. Rapid economic growth, urbanisation and climate change have put tremendous pressure on water resource in China, especially for safe and healthy drinking water (Wu, 2020), as a range of microbial and chemical contaminants of emerging concern have been detected in drinking water there (Wu, 2020). In addition, some leaders may also be aware of drinking water issues reported in the news. This is why they are concerned about drinking water directly from the tap and think people might have to boil it before drinking. Some of the leaders interviewed heard that water quality in New Zealand is high and know they can drink water directly from the tap. However, they felt that water could have been polluted after the earthquake in 2011, which raised their concern about drinking water as well as water pollution issues.

Secondly, from the survey data only 7% of respondents heard of the term Te Mana o te Wai, while 89% of them did not. Moreover, survey respondents shared the hierarchy of objectives (the importance of water and how we could manage waterways) but did not consider the

hierarchy of objectives of Te Mana o te Wai. Leaders showed their understanding of Te Mana o te Wai according to my interview data: that it might mean such things as the necessity of human need, the spirituality of tea culture and a treasure for future generations. Water in Chinese culture plays an important role in the customs of life for Chinese people (Yang, 1993). Water culture (the way people use and understand water resources) emphasises harmony between man and nature; it means respecting nature and the water environment (Zhang & Dong, 2021). Moreover, the Yellow River is the cradle of Chinese civilisation (Yang, 1993). The cradle of civilisation suggests the necessity of human needs and the next generations. In addition, tea culture relies on good water quality. It is also important in Chinese culture: since time immemorial, tea has been the major drink of the Chinese people and has been indispensable in life: “Tea and tea-related activities have penetrated various aspects of social life and take on unique cultural characteristics,” (Li, 1993, p.75). This is the value placed on water by ethnic Chinese community.

In terms of the hierarchy in NPS-FM Section 1.3 (5), it shows the hierarchy of obligations in Te Mana o te Wai that prioritises “first, the health and well-being of water bodies and freshwater ecosystems; second, the health needs of people (such as drinking water); third, the ability of people and communities to provide for their social, economic, and cultural well-being, now and in the future” (Ministry for the Environment, 2020, p. 6). Based on my interview results, four leaders mentioned the second hierarchy while the scientist mentioned the first and second hierarchy in terms of understanding this term (see Section 5.1). Therefore, the hierarchy of Te Mana o te Wai in NPS-FM and the way ethnic Chinese think about hierarchy are different; ethnic Chinese people mainly focus on the first and second priorities in the hierarchy.

6.1.2 Willingness to be involved

According to my results, only 26% of respondents were willing to be involved themselves and 56% adopted a neutral position. Wang’s research also highlighted the participants’ willingness to engage in the decision-making process in planning: 33% of participants in that study showed willingness to engage and 47% adopted a neutral position (Wang, 2019). Therefore, it appears that most ethnic Chinese prefer to keep a neutral position. It also suggests some important methods that regional councils could use when approaching the ethnic Chinese group. For instance, if the regional council could find effective engagement methods for ethnic Chinese people, those people who adopted a neutral position might

change their minds and begin to engage in decision-making processes in freshwater management or planning. Furthermore, this might be the reason for the scientist commented that “need a leader to lead ethnic Chinese group to engage in decision-making process”. On the other hand, 69% of survey respondents thought that ethnic Chinese people should be involved and 28% adopted a neutral position. Interestingly, when combining the result for the two questions “How likely are you willing to be involved?” and “How likely do you think ethnic Chinese people should be involved?” (refer to Table 4.8), it appears that most ethnic Chinese living here think it is important for ethnic Chinese to be involved, but not themselves directly. Likewise, five ethnic Chinese interviewees said they were willing to be engaged in the decision-making process if given an opportunity. Except for the reason of social integration (discussed in the section above), other reasons include that involvement would lead to a win-win situation and better life, empowering ethnic Chinese for better policy implementation, building trust and bringing different knowledge of water management. My survey results suggest that ethnic Chinese are more willing to be involved in helping to address drinking water (95%) and water pollution (70%) issues compared to biodiversity decline (30%), water ownership (23%) and shellfish collection (18%). In this case, if the regional council wants to make policies related to drinking water and water pollution issues, they might seek and adopt suggestions from ethnic Chinese people, who are more interested in these two issues.

6.2 Objective 2

Identify and evaluate ways of engaging with ethnic Chinese that could be effective for regional councils in developing long-term visions for freshwater management units.

Firstly, from the profile of survey respondents my results show that more females (56) than males (28) did the survey online, while more males (38) than females (29) preferred to do the survey in person. There is mixed evidence in literature that women are more likely to do surveys through online channels. Some literature highlight males being more likely to do surveys online (Piñeiro et al., 2016; Smith, 2008), whereas other literature shows more female responses by online channels (Cui, 2022; Wandner et al., 2014). In my survey results, there was a statistically significant difference in response rates between males and females, with ethnic Chinese females being easier to approach through online channels and males being easier to approach in-person. It suggests that different methods (online or in-person)

might be used to increase ethnic Chinese people's awareness and encourage equal participation of males and females.

Irvin & Stansbury (2004) thought that participation processes could be "a transformative tool for social change; that citizen involvement is intended to produce better decisions and thus more efficiency benefits to the rest of society" (see Section 2.1.2). Ethnic Chinese community leaders agreed with this. They thought that the council might produce better decisions if they heard ethnic Chinese voices, that it would lead to a win-win situation and promote social integration (see Section 5.2). Therefore, ethnic Chinese people's participation in processes is important. In addition, Irvin & Stansbury (2004) described some advantages to citizen participants: to persuade and enlighten government, gain skills for activist citizenship, build trust, gain some control over policy processes, better policy and implementation decisions (see Section 2.1.2). Similarly, my results suggest that engagement with ethnic Chinese people might persuade and enlighten the government and that subsequently the government might make better policy and implementation decisions for ethnic Chinese (see Section 5.2). Other literature highlighted the reasons to engage with different ethnic groups: that it might address shared concerns and negotiate differences, lead to fruitful outcomes, increase views and equality, build trust and achieve inclusiveness (refer to Section 2.3.1 and 2.3.2). If the regional council adopts suggestions or hears the voices of the ethnic Chinese community and empowers ethnic Chinese community leaders or staff (see Section 5.3). This is what both the ethnic Chinese group and regional council need to do to achieve a more inclusive and equitable society. Njoh (2002) thought that some ethnic communities either tend to exclude themselves or be excluded from the participation process (see 2.1.4). The stereotype might show that ethnic Chinese people here tend to exclude themselves from the participation process, because many ethnic Chinese come from mainland China, which has different systems to New Zealand around citizen participation. In New Zealand, participation is encouraged, but ethnic Chinese might not be aware that they can participate in such ways or may not want to participate in the decision-making process in this country. However, my results show that ethnic Chinese people are willing to participate in decision-making processes.

Many barriers were identified from the interview results, including cultural differences or different cultural backgrounds, that some people worried that the regional council might not listen to them or that they had no right to speak; the language barrier, lack of knowledge of

organisation staff, lack of knowledge of both community leaders and members, that people do not know who can solve some issues, lack of awareness and lack of time were other barriers discussed. Due to the awareness barrier, 89% of respondents never engaged in council policy-making processes (n=151). Wang (2019) found that 94% of participants had never made a submission or been engaged in any planning process (n=111), which was quite similar to my result. These two results suggest that there has not been a significant change in ethnic Chinese engagement in the last three or four years.

When collecting data, I invited one public official from the Waimakariri District Council to join this research by email. However, the public official replied that “The Waimakariri through engagement with residents does not require ethnicity data. Generally speaking, we find that people are more likely to engage based on topics of interest and water is one that crosses all demographics,” (personal communication from Waimakariri District Council staff member, August 3, 2022). Harmsworth et al. (2016) said that enduring relationships between local government and tangata whenua as well as adequate resourcing for all partners are critical to the success of collaborative processes. A deep understanding and appreciation of Māori knowledge and values based on their frameworks and assessment tools can also support collaborative processes (refer to Section 2.3.4). Adequate resourcing for the ethnic Chinese group would appear to also be important. The regional council may not recognise that different ethnic groups have different values, but the regional council may need to recognise and consider ethnic Chinese as a distinct community. Further, Bennett et al. (2021) thought that resourcing should be focused on addressing equity issues in planning processes with respect to mana whenua engagement and cultural competency. However, current resourcing levels during engagement processes show that the needs of kaitiaki cannot be met and tikanga is not respected (Bennett et al., 2021). Hence, the key point for best practice requires more council staff to understand the values of different ethnic communities. Public official 2 identified the lack of knowledge of staff (see Section 5.4). There is a lack of data and information, with poor or no participation by mana whenua in environmental monitoring in freshwater management (Our Land and Water National Science Challenges and Poipoia Ltd, 2020). The limited capacity and capability of mana whenua to manage freshwater according to their values and aspiration and a lack of competency across cultural capacity and capability of local authorities ((Our Land and Water National Science Challenges and Poipoia Ltd, 2020) mean that due to a lack of capacity to respond, mana whenua cannot participate in a consent application ((Our Land and Water

National Science Challenges and Poipoia Ltd, 2020). My results suggest a lack of capability of regional council staff regarding the skills needed to engage with different ethnic groups; however, the council does not examine whether they have capacity for such time or resources.

Literature also highlighted some barriers, including that engagement is time-consuming, costly or expensive; language barriers; information deficits; and lack of trust in the government (refer to Section 2.1.4). Wang (2019) identified cultural barriers, language barriers and lack of knowledge within the ethnic Chinese groups as impeding their effective engagement. My results suggest that the time-consuming nature of engagement and language barriers for both community and government cannot be avoided, as well as cultural barriers (see Section 5.3). Information deficit was the same as the awareness barrier, because people want to be engaged but do not know how and where to do so (see Section 5.3). Wang found that planning documents require the public to know a lot of technical and professional words, which increases the difficulty for the public to comprehend and engage, especially for people from different cultural and language environments (Wang, 2019). The regional council could put some effort into overcoming cultural and language barriers to increase expertise and awareness within the community (see Section 5.3). Irvin & Stansbury (2004) highlighted some disadvantages to citizen participants, such as creating more hostility toward government, that engagement is pointless if the decision is ignored and that worse policy decision can be made if heavily influenced by opposing interest groups. Reeves (2004) thought the communities that do not have the necessary expertise might limit the effectiveness of collaboration. Additionally, people might feel that the government (such as ECan regional council) does not adopt their suggestions or hear their voices (see Section 5.3), which leads to a lack of trust in government. Currently, the regional council does not have enough different ethnicity data, although they have realised this (see Section 5.4). There is a long way to go for the regional council, but some solutions for overcoming these barriers will be discussed later.

From this research, 59% of respondents suggested that ECan staff could provide a particular place or group meeting for ethnic Chinese people to participate in the decision-making process; only 6% disagreed with this. Carr (2005) emphasised that citizens should have a place for making recommendations and participating in the decision-making process. People were happy to have a place to go when there is a community that can make decisions

together (Conallin et al., 2017). In this case, the regional council could consider a particular place for ethnic Chinese engagement. This could increase engagement effectiveness for ethnic Chinese people.

Finally, in terms of suitable ways for ethnic Chinese people to be engaged, public officials have realised that there is a long way to go for their organisations in terms of engaging with wider communities. They also realised the importance of pre-engagement and communication with different communities, education for both staff and the community and education of youth. They suggested holding meetings, lectures or workshops among the ethnic Chinese community; building trust between organisations and communities; and disseminating information through different channels. The survey data suggests that most ethnic Chinese people receive water-related knowledge through social media (95 respondents) compared to community boards (13), council events (19) and environmental restoration activities (4). More than half of the respondents thought the following methods could increase the efficiency of engagement for ethnic Chinese people: that ECan could provide more information about engagement; engagement promotion using social media; and information being translated into Chinese. In addition, more than 47% of respondents thought that ECan could hold particular workshops with ethnic Chinese people. More than 60% of respondents thought that sending email newsletters in Chinese and holding public meetings in Chinese could increase ethnic Chinese people's awareness of how to become involved in setting long-term visions for freshwater. More than 75% of respondents thought that translating information on the ECan website about water management policies and participation opportunities into Chinese, having Chinese-speaking people available at ECan for phone calls and having Chinese-speaking staff attend Chinese cultural events to raise awareness and seek views would be helpful.

Wang (2019) highlighted some solutions on how to improve ethnic Chinese engagement in planning, such as providing translated planning documents, promoting the use of social media and regular interaction with ethnic Chinese groups. The same study points out that cultural barriers cannot be solved solely by cultural celebration events; the solution needs a good understanding of people's diverse cultural backgrounds and sustained professional efforts for improvements in communication and community engagement (Wang, 2019). In addition, the author pointed out that the government has put effort into engagement and interaction with diverse ethnic groups through cultural celebration events; however, the

effectiveness of these methods is still unknown as none of my interviewees mentioned this. From the current research (Figures 4.7 and 4.8), potential future options for the regional council to engage with ethnic Chinese people could be through social media channels, holding meetings, lectures or workshops among the ethnic Chinese community and providing more information with translated in Chinese.

6.3 Objective 3

Review existing Environment Canterbury practices with respect to best-practice for engagement with ethnic Chinese group on the NPS-FM and for other important environmental issues.

Two models of participation and collaboration were discussed in Section 2.1.1. There are eight rungs in Arnstein's ladder (Figure 2.1) and five levels in the spectrum of public participation (Figure 2.2). For the ladder, my results suggest that most ethnic Chinese people are at the bottom two rungs of the ladder, the levels described as 'non-participation'. Few ethnic Chinese people have reached rung 3 (informing) or 4 (consultation), levels described as 'tokenism' that allow the public or citizen to hear and to have a voice. Apart from those who went to meetings for their work, ethnic Chinese within the general public did not have a chance to talk about their concerns or thoughts with local government staff. In addition, the government even did not inform them about public engagement in the decision-making process and as a result, ethnic Chinese people did not know who they should approach to talk to government. However, ethnic Chinese are happy to move to higher rungs of the ladder described as 'partnership' and 'delegated power'.

As discussed in Section 6.1, one of ethnic Chinese community's values is to be a 'host'. Moreover, as the leader mentioned in Section 5.3, ethnic Chinese people wish to have representation in the council. (Leader 1 did not mention which council, he just used the word 'council' probably in reference to CCC as his main subject during the interview.) Representation means power and could build trust between the ethnic Chinese community and the council.

The first two levels of the spectrum are 'inform' and 'consult' and few ethnic Chinese sit at these levels. The highest level discussed was 'empower', which is what ethnic Chinese people ultimately wanted. Respondents thought that 'empower' means that ethnic Chinese people would be selected as councillors, either in CCC or ECan, which would combine the

general ethnic Chinese public's voice into policy-making processes and benefit the ethnic Chinese group (see Section 5.3). In addition, they encouraged their future generations to participate in politics in order to have their own place, because this means power (see Section 5.3) and helps future generations to integrate into society (see Section 5.3).

Respondents had different opinions on their influence in the decision-making process in planning or water management. Leaders thought that ethnic Chinese engagement was important as they could support the decision-maker and because everyone was influenced by the better policies enacted after considering different voices. In this case, engagement was a win-win situation for both government and ethnic Chinese people. In addition, one leader pointed out that ethnic Chinese engagement was more important, especially in regions with higher ethnic Chinese populations (Leader 3, Section 5.2). Moreover, McCool (2018) summarised four lessons from the failure of collaboration in the Kamath Basin (refer to Section 2.3.2). Two of them could potentially help ECan avoid same mistakes. The first one is to create a win-win situation between treaty partners/stakeholders and ECan, instead of a 'win some, lose some' situation. As discussed previously, both ethnic Chinese leaders and public officials believe that ethnic Chinese engagement in the decision-making process could lead to a win-win situation. The other lesson is to collaborate with all major stakeholders. In this case, co-governance for Māori group and ethnic Chinese engagement could address this issue.

As Section 3.3 of NPS-FM shows, "every long-term vision must be developed through engagement with communities and tangata whenua about their long-term wishes for the water bodies and freshwater ecosystems in the region" (Ministry for the Environment, 2020, p.12). My results show that the regional council did not have a specific target group (see Section 5.4) and therefore applies a 'one size fits all' approach to different communities in terms of engagement. In terms of ZC, the literature shows the collaborative process provided unequal opportunities for participation between different community groups and that lack of accountability results in a disconnect between ZC members and the public (refer to Section 2.2.2). Similarly, my interview results highlight unequal opportunities for participation between different community groups and the disconnection. CWMS set out processes for community engagement through open meetings, workshops and public hearings (see Section 2.2.2). According to public officials, the council has used these methods for engagement (see Section 5.6). In addition, my survey and interview data also

highlights that meetings, workshops and public hearings could be an effective method through which ethnic Chinese people can engage. However, my findings suggest that currently, few ethnic Chinese people attend such meetings, workshops and public hearings (Figure 4.6). The reasons might include a lack of awareness, feeling unsafe about share their thoughts and concern that the government might not listen to them (see Section 5.4).

Through this research, I made contact with the Ministry for Ethnic Communities and received an email inviting me to attend a conference called Ethnic Advantage, held on 3 December 2023. This conference highlighted ethnic diversity as something we should treasure: a taonga (Ministry for Ethnic Communities, 2022). A diverse population has benefits, including economic, cultural and social advantages. This conference provided a space for people to have open and honest conversations about how to create strong and empowered communities and make New Zealand a more inclusive place (Ministry for Ethnic Communities, 2022). Some challenges for engagement were discussed: discrimination, language barriers, diverse backgrounds and traditions, unconscious bias, people not knowing their rights around engagement, people not understanding government systems and lack of belonging. Some of those challenges were similar to the current study's findings. The Ministry for Ethnic Communities convenes Hui to provide a particular place for people to talk about the things that concern them and build connections. The Ministry for Ethnic Communities stated: "We gather you together and give people opportunities to talk and tell us about what concerning you and then giving us a chance to connect with other parts of government and NGO and other civil providers" (personal communication, December 3, 2022).

Other solutions include understanding how other cultures work by providing internships for young people and offering university programmes. In terms of the equity issue, the Ministry for Ethnic Communities set different meeting times at different times of the day, in order to hear from people that they do not usually hear from. They also train staff to understand other cultures. If some ethnic groups lack belonging, the Ministry for Ethnic Communities builds connections and event platforms for both international and domestic citizens to get to know each other and make friends; they secure belonging to make people feel comfortable. In addition, the Ministry for Ethnic Communities provides some suggestions on how to encourage people: "know what they are thinking, why they have no motivation, how we can help them, we help them realise they are treasures" (personal communication, December 3,

2022). The Ministry for Ethnic Communities also work with ethnic youth. They are in regular contact with ethnic youth, gathering insights, sharing information and resources, supporting funding applications and facilitating connections.

There are many ways to develop best practice for regional councils. The work of the Ministry for Ethnic Communities in terms of engagement would be worthwhile for the regional council to learn, because my findings suggest that the council has a long way to go in terms of involving different ethnic groups in decision-making processes. However, the work of the Ministry for Ethnic Communities does not focus on the field of environmental planning, but on promoting the value of diversity, improving the inclusion of ethnic communities and the connection between ethnic community groups (Ministry for Ethnic Communities, 2022). On the other hand, the regional council focuses on environmental planning. Though the best practice of the Ministry for Ethnic Communities is different to what the regional council intend to do, their engagement methods with different ethnic groups might be helpful for the regional council to consider.

In 2022, the Ministry for the Environment released its Guidance on the National Objectives Framework of the National Policy Statement on Freshwater Management. This document says that “Councils are required to engage with communities, too. Not all parts of the community with interests in freshwater have equal opportunities to engage; they may lack access to resources and experts. Councils should be mindful of these inequities in engagement and endeavour to provide engagement opportunities and an even playing field, as far as possible,” (Ministry for the Environment, 2022, p.12). This shows that the Ministry for the Environment realises there are inequities in engagement for communities with interests in freshwater. From my results, ethnic Chinese people have shown an interest in freshwater management and engagement in the decision-making process. Public officials have also realised this inequity in engagement from their own work experiences. However, few efforts have been made to provide engagement opportunities that are targeted at specific ethnic groups, especially ethnic Chinese. As the population of ethnic Chinese people occupies 5.3% of the total New Zealand population, the regional council should consider them in the future for the best practice. For the best practice of the guidance, the same document states “Councils should focus on building knowledge and capacity within staff and governance, to allow these relationships to grow, as well as creating processes and mechanisms for involvement,” (Ministry for the Environment, 2022, p.12). However, there

are some barriers to the implementation of the NPS-FM that might impede the best practice. For example, the difficulty aligning local plans with an updated version of the NPS-FM, as well as meeting other national standards and objectives; lack of staff capacity at local government level; lack of community knowledge and expertise; the mismatch between local issues and national priorities; and differences between regional councils and unitary authorities (Kirk et al, 2020). According to my results, some of those barriers still exist. The regional council realises that lack of staff capacity might impede ethnic Chinese engagement because of a lack of communication between ethnic communities; ethnic Chinese people realise their lack of knowledge and expertise in terms of engagement and water management; and many ethnic Chinese people did not know the differences between regional councils and unitary authorities. As discussed previously, there are many things for the regional council to learn in order to overcome these barriers for the best practice.

As mentioned previously, the CMS aims to make Christchurch city a place where diversity is welcomed and celebrated. The third goal is that *all residents are able to participate in Council decision-making* and the fourth goal is to that *Christchurch is a city of cultural vibrancy, diversity, inclusion and connection* (see Section 2.3.3). In my study, public officials identified methods, including face-to-face meetings, online tools, traditional media and social media to improve public participation in regional council decision-making (see Section 5.6). However, there was a low rate of ethnic Chinese participation, mainly because of the awareness barrier. Therefore, to achieve the third goal more effort should be considered regarding more effective participation methods for ethnic Chinese group. Both leaders and public officials realise the importance of cultural diversity and inclusion in New Zealand and Christchurch. However, the connection between the regional council and communities is weak, which leads to a lack of awareness and trust. That is why leaders want to build trust and hope the regional council could hold some meetings or lectures for the community.

6.4 Practical implications for local authorities and central government

In addition to addressing my objectives, I have also distilled out some practical implications for local authorities and central government to consider when engaging with the ethnic Chinese community on freshwater management issues in the Canterbury region. These are summarised in Table 6.1. The evidence-base for these recommendations is included in the above sections (6.1-6.3).

Table 6.1 Some practical implications for local authorities and central government when engaging with the Canterbury ethnic Chinese community from this research

	Key points/recommended actions	Rationale/explanation
Local authorities	Discuss concerns about drinking water and water pollution with ethnic Chinese in community engagement strategies	My research shows that the greatest concern of ethnic Chinese is drinking water, and water pollution issue ranks the second.
	Use social media channels for communication	Local authorities should prioritise finding out precisely which websites or media avenues are preferred by ethnic Chinese and seek to gain a presence there for water and other environmental management issues for ethnic Chinese.
	Provide translation information in Chinese	My research shows the language barrier for ethnic Chinese to engage. Therefore, priority should be given to providing translations of information in Chinese.
	Identify a suitable physical place for ethnic Chinese to engage with local authorities	It is important to identify a suitable physical place for ethnic Chinese to engage with local authorities over environmental management. Hence, local authorities should ascertain from ethnic Chinese which kinds of places would be best suited for individual and group consultation..
	Provide training to enhance the multi-cultural competence of local authorities staff	The general lack of fluent Chinese speakers in local authorities was identified by respondents, and the lack of recognition of ethnic diversity in communications policy leaves local authorities there at a present and future disadvantage.
	Use different engagement methods for different gender groups	My survey results illustrate males preferred to do the survey in person while females preferred to do it online. This could be reflected in how engagement over water quality and other issues is initiated. Council should evaluate this difference as they go, because they may find something different or something similar to this depending on the issue(s).
	Collect more ethnicity data possibly from the official Census and other public sources	My research finding suggests the inadequate ethnicity data for all local authorities. Although some local authorities have better ethnicity data

		gathering records and processes than others it is still more or less optional.
Central government	Co-operate between government agencies, for example, MEC, MfE and Minster for Local Government should have formal agreements for co-operation over environmental issues	MEC provides some useful methods for engaging different ethnic groups. MfE and local authorities might draw lessons from these suggestions. In addition, MEC should have a workstream over engagement over important environmental issues which pose major threats to ethnic communities.
	Explore in what case that ethnic Chinese want to be involved	My survey data highlights that the issue of 'neutrality' as preferred or perceived preferred status amongst ethnic Chinese needs to be addressed or further explored as a general issue, perhaps best done via MEC.

6.5 Summary

This chapter discussed my results and literature together to achieve my three objectives. For my first objective, ethnic Chinese people living in Christchurch have more concerns about drinking water and water pollution issues; they worry about water-related issues that are close to their daily life. Their understanding of the hierarchy of Te Mana o te Wai was slightly different from the NPS-FM; ethnic Chinese think there are only two levels of hierarchy (the first level being the health needs of people, the second level being the health and well-being of water bodies and freshwater ecosystems). Ethnic Chinese think that their participation in the decision-making process is important, similar to other ethnic groups around the world. One of the community values of ethnic Chinese is the difference between 'host' and 'guest' and their devotion to this country.

For the second objective, there are many barriers that impede ethnic Chinese engagement. Some barriers were similar to Wang's (2019) findings. Potential solutions such as disseminating translated information through social media channels, providing safe places for engagement and holding meetings or workshops particularly for ethnic Chinese people could overcome some of the barriers.

For the third objective, I found that most of the ethnic Chinese participants sit at rung 'manipulation' and 'therapy' in Arnstein's ladder and that few reach rung 'informing' and

'consultation'. In terms of the spectrum of public participation, few ethnic Chinese are at the first level (inform), while most were not even on the spectrum. Next, I discussed some findings from a conference held by the Ministry for Ethnic Communities about best practices. They provided some useful methods for engaging different ethnic groups, such as convening hui to provide a particular place for people to build connections, training staff to understand other cultures, securing belonging to make people feel comfortable and working with youth. The regional council might draw lessons from these suggestions. The seven documents I reviewed only mentioned 'engagement with public', especially engagement with Māori and not specific to ethnic Chinese engagement. It could be a future improvement or direction for those organisations to practise better engagement with different ethnic groups. Finally, the Ministry for the Environment released its Guidance on the National Objectives Framework of the National Policy Statement on Freshwater Management; however, few efforts have been made to provide engagement opportunities, which is what they should do in the future for the best practice.

Moreover, Section 6.4 showed some practical implications for local authorities based on my findings. More details were provided in Table 6.1. I distilled nine recommended actions for local authorities and central government seeking to engage with ethnic Chinese residents when dealing with environmental or freshwater management issues in the Canterbury region. These actions might help local authorities engage more effectively with ethnic Chinese residents, and ultimately deliver freshwater management outcomes that reflect the diverse values and aspirations of Canterbury's increasingly multicultural communities.

Chapter 7

Conclusion

The final chapter of this thesis discusses the summary of research findings and the implications of these findings for the literature, regional council (ECan) and ethnic Chinese community leaders living in Christchurch. The limitations of this study will also be discussed and suggestions for future study are given.

7.1 Summary of findings

Literature shows the importance of different ethnic groups participating in the decision-making processes in planning and water management around the world. The current research particularly focuses on the ethnic Chinese group in decision-making processes in Christchurch, New Zealand. Both qualitative and quantitative research methods were used for this study: a survey consisting of 151 respondents through in-person and online channels and ten interviews. I also reviewed seven documents and found an absence of ethnic Chinese engagement in those documents.

Objective 1: Explore what Te Mana o te Wai means to ethnic Chinese people living in Christchurch.

The first objective of this study was achieved according to survey and interview data analysis. Firstly, it was found that ethnic Chinese people living in Christchurch are concerned about water-related issues that are close to everyday life, such as drinking water quality and water pollution, but not about larger scale issues. In addition, they only consider the first and second priorities of Te Mana o te Wai in the hierarchy. Ethnic Chinese people living in Christchurch showed willingness to be involved in the decision-making process in planning and water management because they believe that participation is important. This study illustrates some community values for ethnic Chinese people: that they think of themselves as 'host' of this country rather than 'guest' and that they want to integrate into New Zealand society for better quality of life and future generations. Local ethnic Chinese people want to give something to this country, such as participating in decision-making processes in planning or water management in order to show their devotion to New Zealand as their home.

Objective 2: Identify and evaluate ways of engaging with ethnic Chinese that could be effective for regional councils in developing long-term visions for freshwater management within each Zone Committee area.

My findings indicate a low level (11%) of public participation from the ethnic Chinese group in Christchurch in decision-making processes in planning or water management. The engagement barriers include lack of knowledge for both government staff and community members, cultural barriers, language barriers and time restraints. However, a substantial proportion of ethnic Chinese people do care about water-related issues and want to participate in the decision-making process. Moreover, ethnic Chinese community leaders encourage other ethnic Chinese to elect councillors as a means to building power and trust between ethnic groups. Decision-making processes include public participation as a key to ensuring the quality of the decisions and outcomes. In Christchurch, public meetings, workshops and hearings are held by the regional council that are open to the public. However, ethnic Chinese attendance is relatively low compared with other ethnic groups. This study provides potential options for councils to consider in terms of engaging with the ethnic Chinese group, including use of social media tools such as WeChat to improve the efficiency and quality of public participation. Additionally, local government could provide translated documents and actively pursue regular interaction with the ethnic Chinese community. It is important to address the disconnection between the local government and local ethnic Chinese community.

Objective 3: Review existing Environment Canterbury practices with respect to best-practice for engagement with ethnic Chinese group on the NPS-FM and for other important environmental issues.

Seven documents were reviewed in this study. A key finding in those documents was the absence of ethnic Chinese engagement. The documents all discussed engagement with the public, especially for Māori as Treaty partners. However, they rarely mentioned engagement with ethnic minority groups such as ethnic Chinese. In this case, the regional council has a long way to go to achieve best-practice with the ethnic Chinese group.

The Ministry for the Environment released Guidance on the National Objectives Framework of the NPS–FM; however, few efforts have been made to provide engagement opportunities that are targeted at specific ethnic groups, especially ethnic Chinese, which ECan should do in the future as a matter of best practice. For example, ECan staff could be trained to

understand other cultures, which would help solve the lack of staff capability by teaching the skills needed to engage with different ethnic groups. In terms of capacity, such as time and resources, ECan could offer programmes to collaborate with different ethnic groups, youths or student. Building trust and connection between the ethnic Chinese community and ECan is also important and could be achieved through meetings or lectures, Increasing people's awareness and encouraging them to participate in the decision-making process in planning or water management.

7.2 Implications of these findings

The results of this study will contribute to the literature, regional council and ethnic Chinese community leaders. This study contributes to the literature on ethnic Chinese engagement in the decision-making process in planning or water management in New Zealand, which previously has been absent. Irvin & Stansbury (2004) talked about the advantages and disadvantages of citizen participation in government decision-making and some of their points were similar to my findings for the ethnic Chinese participation. My findings also show where the ethnic Chinese group sits in decision-making processes in the models of Arnstein's ladder of citizen participation and the IAP2 spectrum of public participation.

Fenemor (2017) identified the relationship between freshwater objectives, limits and methods, especially for values in this relationship (Figure 2.5). My findings highlight the values of the ethnic Chinese community living in Christchurch. The absence of ethnic Chinese engagement in regional council documents show the need and potential for engagement methods to bridge this gap in the future, as ethnic Chinese people have shown their willingness to participate. Ethnic Chinese community leaders hope to build connection between the regional council and ethnic Chinese community and are willing to help the regional council by gathering their communities and participating in decision-making process. My findings may also help ethnic Chinese community leaders to gain more knowledge about engagement through different documents, understand what the councils have done and how regional councils might use a variety of methods to engage the ethnic Chinese group in Christchurch.

7.3 Limitations and suggestions for future study

Despite the success of the study, there were also limitations. The small sample size for the interviews (10 participants), due to the limited time-frame, capacity and nature of this research being conducted during the COVID-19 pandemic, was a challenge. In addition, I could not convey the complex concept of Te Mana o te Wai via a survey. In the survey, 151 responses provided a good sample size, but when broken down into different groups I found under-representation of people who stayed in New Zealand or Christchurch for 11-20 years or more than 20 years. For the online survey, I took precautions to stop individuals completing the survey multiple times, but I could not be completely confident that this did not occur.

There are several future research opportunities to follow up from this study. In a post-COVID-19 world it would be good to add depth to my findings by conducting more interviews or focus groups with ethnic Chinese about Te Mana o te Wai. In addition, my study did not uncover why ethnic Chinese people do not want to be engaged in decision-making processes of local government. A future case study focusing on the ethnic Chinese group, or on other different ethnic groups, may discover this, which would be worthwhile. Finally, it would also be worthwhile to examine best-practice for engagement with the ethnic Chinese group on the NPS-FM and for other important environmental issues after many years, to see if the council has placed some effort in this area and what changes have been seen.

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Appendix A

Search Methodology

This literature review consisted of three parts. Each part included a snowball method, where papers that met the criteria for inclusion were examined for relevant references. This method is the best approach for identifying sources published in journals according to their study (Wohlin, 2014). The search terms, sources, number hits, number relevant and criteria for inclusion are set out in Table 1, divided by three different parts.

Connected Papers (www.connectedpapers.com) uses a single, user-chosen 'origin paper' to build a map of related research. It means researchers can search for an origin paper that interests them and see from the resulting map which recent papers have made an impact in their field, how they relate to other research and how many citations they have accrued (Matthew, 2021).

Advanced search in Google Scholar was used to find articles with all of the words in the title of the article. Many articles were then used in the literature review, rather than using all of the articles that were relevant to this study. Using "or" in the search terms meant that Google Scholar used an advanced search to find articles with at least one of the words in the title of the article. For example, the search "Stakeholder collaboration, planning or water" means "find articles with all of the words 'stakeholder collaboration' with at least one of the words 'planning' or 'water' in the title of the article". This method minimises the search results, leads to result-focusing, helps me control the search words I use and allows me to search more precisely.

Table 1: Literature search methodology used in this thesis. The literature review was undertaken in three parts (see text).

Part 1: Explore the literature on *public participation and collaboration concepts, importance, models, effectiveness, evaluation, and barriers*. In addition, the phrase "A ladder of citizen participation" was entered on Connected Papers as this article was the basis of citizen participation and might find some highly relevant articles to my research.

Search terms	Sources	Number hits/ Number relevant	Criteria for inclusion
A ladder of citizen participation	Connected Papers	40/7	Relevant articles mentioning public participation in planning or water management worldwide. Including the definition of the public participation (PP), examples of IWRM, methods for facilitating public participation and PP in environmental and water management in different countries.
IAP2 spectrum of public participation	Google Scholar	349/38	
Stakeholder collaboration, planning or water		60/3	
Stakeholder involvement, planning or water		34/4	
Stakeholder engagement planning, water		28/2	
Stakeholder participation, planning or water		265/6	
Public involvement approach		96/3	
Effective collaboration, planning or water		51/3	
Effective engagement, planning or water	39/4		
Participation barriers, planning or water		71/7	Costs and benefits; benefits and barriers of PP. Some of these barriers might be the same as results from my
Engagement barriers, planning or water		12/2	

Participation obstacles, planning or water		30/2	research to be analysed more in the discussion chapter
Engagement barriers, planning or water		12/2	
Participation barriers, planning or water		30/2	

This search included eight articles from Wang’s dissertation. Wang (2019) studied ethnic Chinese attitudes to resource management planning in Christchurch. More details have been shown in literature review chapter.

Part 2: Explored *collaborative water governance in New Zealand*

Canterbury Water Management Strategy (CWMS)	Google Scholar	38/6	Example of collaborative governance in NZ, why important, key elements of the strategy, opportunities for public input, empowerment, barriers or issues for the public. Water governance in NZ. Barriers to local government implementation of freshwater policy and some recommendations. Improvement for water management in NZ. Freshwater reforms and collaborative planning.
Local government freshwater		23/2	
Public participation New Zealand, planning or water		6/2	
Governance New Zealand public participation		3/1	
Water management practice Canterbury		1/1	

Part 3: Explored *engagement with multi-ethnic communities in collaborative decision-making*. From both international literature and New Zealand context. In addition, I also explored Māori values and perspectives in terms of engagement in water management because Māori are Treaty partners (as the indigenous people of New Zealand). Then, what do Chinese people think about water management, because my research focused on the ethnic Chinese group, so their thoughts about water management are also important.

Search terms	Sources	Number hits/ Number relevant	Criteria for inclusion
Indigenous Māori freshwater	Google Scholar	3/2	Māori perspectives and values in terms of engagement in water management. The meaning of Te Mana o te Wai.
Māori involvement freshwater		1/1	
Te Mana o te Wai		9/1	
Chinese water culture	Google Scholar	66/2	What water management means to Chinese people or in Chinese culture.
Chinese engagement New Zealand		8/1	
Chinese participation New Zealand		8/1	
Diversity engagement	Google Scholar	12/1	Multicultural challenges, multiculturalism in Auckland. Urban planning responses to ethnic diversity city programme through regulating and making the urban public realm. Diversity advantage. Role of regional and local governments when dealing with multicultural issues.
Ethnic differences public participation		3/1	
Diversity consultation New Zealand		1/1	
Culture New Zealand, planning or water		25/1	
Culture difference, planning or water		12/1	
Intercultural diversity, planning or water		11/2	
Intercultural diversity New Zealand		1/1	
Multiculturalism, planning or water		69/2	
Multicultural urban planning		3/38	
Urban planning multi ethnic		5/1	
Urban design multi ethnic		3/1	

Documents/reports:

Table 2: List of relevant document sources from key council and government websites used in the thesis related to the setting of the National Policy Statement for Freshwater Management and collaborative processes.

Name	Organisation	Year	Purpose/relevance
Canterbury Water Management Strategy (CWMS)	Environment Canterbury	2009	It provides a collaborative framework to help manage the multiple demands on this resource.
Christchurch Multicultural Strategy 2017 --2021 (CMS)	Christchurch City Council	2017	This strategy outlines what the council can do in terms of improving service delivery, upskilling the internal organisation and developing authentic relationships to achieve the outcome of a diverse, inclusive and welcoming city.
Christchurch West Melton Zone Implementation Programme (ZIP) for the Canterbury Water Management Strategy	Environment Canterbury	2013	ZIP was designed for the Christchurch West Melton Zone to be produced under the CWMS.
Collaborative Processes and the Roles of the Council	Landcare Research	2013	Recommendation roles of the council playing in the freshwater reforms and collaborative planning.
Evaluating public input in National Park	Department of Conservation	2011	To identify facilitators and constraints that affect public input into DoC's statutory

Management Plan reviews			management planning processes and to provide guidance to improve the practice of public consultation in DoC's statutory planning processes.
Land and Water Forum Commentary on the Ministry for the Environment's 'NPS-FM Implementation Review'.	Land and Water Forum	2017	The comment on the MfE includes NPS-FM implementation progress, community engagement and collaboration, engaging with iwi and hapū, engaging with territorial authorities.
Land and Water Forum Commentary on Implementation of the NPS-FM	Land and Water Forum	2017	To provide ministers with comments on a number of key NPS-FM implementation issues and to provide advice on necessary improvements.
Mahaanui Iwi Management Plan 2013	Mahaanui Kurataiao Ltd	2013	It provides a statement of Ngāi Tahu objectives, issues and policies for natural resources and environmental management. It also provides a tool for local authorities, other agencies and the wider community to achieve some goals.
Māori Values and Perspectives to Inform Collaborative Processes and Planning for Freshwater Management	Landcare Research	2015	It provides the guidance, frameworks and tools to inform the collaborative process. It shows existing and emerging models of Māori co-governance and co-management for freshwater.
NPS-FM 2020	Ministry for the Environment	2020	It provides local authorities with updated directions on how they should manage freshwater under the RMA 1991.

Appendix B

Human Ethics Approved Letter



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HUMAN ETHICS COMMITTEE

Application: HEC2022-19

June 2022

Title: How can multicultural communities be engaged effectively in the process of setting long-term visions for freshwater? A case study of the ethnic Chinese community, Ōtautahi, Christchurch

Applicant: Chu Zhao

The Lincoln University Human Ethics Committee has reviewed the above noted application.

Thank you for your response to the questions which were forwarded to you on the Committee's behalf.

I am satisfied on the Committee's behalf that the issues of concern have been satisfactorily addressed. I am pleased to give final approval to your project.

Please note that this approval is valid for three years from today's date at which time you will need to reapply for approval.

Once your field work has finished can you please advise the Human Ethics Secretary, Angela Milner, and confirm that you have complied with the terms of the ethical approval.

May I, on behalf of the Committee, wish you success in your research.

Yours sincerely

Grant Tavinor
Chair, Human Ethics Committee

PLEASE NOTE: The Human Ethics Committee has an audit process in place for applications. Please see 7.3 of the Human Ethics Committee Operating Procedures (ACHE) in the Lincoln University Policies and Procedures Manual for more information.

Appendix C

Survey Research Information Sheet

Lincoln University

Environment, Society and Design Faculty

Survey Research Information Sheet

I would like to invite you to participate in a master thesis project aims to explore the engagement and participation of ethnic Chinese groups in decision-making processes in planning/water resource management in Canterbury.

Your participation in this study is entirely voluntary and anonymous. It will involve filling out a survey with some questions, the questions include your understanding of water management, your participation in decision making in water management or planning. I estimate that the online survey will take 15 to 20 minutes. You will be given a number for the survey and the same number for this information sheet, you can call me or email me to withdraw your survey before 31st August 2022 if you like, just tell me your number. The confidentiality of your responses will be preserved at all times.

The results of this project will be presented in a Master's thesis, and may also be disseminated at conferences and submitted for publication in academic journals. To ensure anonymity, survey data will be seen only by me and my supervisors, and all files will be stored securely.

The project has been reviewed **and approved** by the Lincoln University Human Ethics Committee. If you have any questions, or concerns about this project, you can contact me or my supervisors below.

Researcher: Chu Zhao, Master of Water Resource Management Student, Faculty of Environment, Society and Design

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Supervisor: Dr Steve Ulrich, Faculty of Environment, Society and Design

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Appendix D

Survey Questions

1. Can you confirm you are over 18 years old?
 - a. Yes
 - b. No

2. What is your age group?
 - a. 18 - 24
 - b. 25 - 40
 - c. 41 - 55
 - d. 55+
 - e. Prefer not to say

3. Gender
 - a. Male
 - b. Female
 - c. Prefer not to say

4. Do you live in New Zealand?
 - a. Yes
 - b. No
 - c. Prefer not to say

5. Are you just visiting for your family members, friends, or other people here?
 - a. Yes
 - b. No
 - c. Prefer not to say

6. How long have you been living in New Zealand?
您来新西兰多久了?
 - a. Less than 1 year
 - b. 1 - 5 years
 - c. 6 – 10 years
 - d. 11- 20 years
 - e. More than 20 years

7. How long have you been living in Christchurch?
您来基督城多久了?
 - a. Less than 1 year
 - b. 1 - 5 years
 - c. 6 – 10 years
 - d. 11- 20 years
 - e. More than 20 years

8. How much longer do you intend to stay in New Zealand?
您还打算在新西兰待多长时间?
 - a. Less than 1 year

- b. 1 – 5 years
 - c. More than 5 years
9. Have you heard of Environment Canterbury (ECAN)?
您有没有听说过 Environment Canterbury?
- a. Yes
 - b. No
 - c. Not sure
10. Do you know what they do?
您知道他们是做什么工作的吗?
- a. Yes
 - b. No
 - c. Not sure
11. Have you had previous dealings with them?
您之前有接触过他们吗?
- a. Yes
 - b. No
 - c. Not sure
12. If so, please describe what those dealings were about? (Optional)
如果有，能简单说明一下和他们接触是哪方面吗? (选答题)
13. Do you know about Environment Canterbury's (ECAN) role in water management?
您知道 ECAN 在水资源管理中的角色吗?
- a. Yes
 - b. No
 - c. Not sure
14. Have you heard of the Christchurch West Melton Water Zone Committee?
您有听说过 Christchurch West Melton Water Zone Committee 吗?
- a. Yes
 - b. No
 - c. Not sure
15. If so, please describe what you think they do? (Optional)
如果有，您认为他们是做什么的? (选答题)
16. Have you ever felt concerned about water-related issues in New Zealand/Christchurch?
您在新西兰有关心过水资源这类问题吗?
- a. Yes
 - b. No
 - c. Not sure
17. If so, please state which water issue(s) you concerned? (Optional)
如果有，能简单说一下是哪(几个)方面吗?

18. How willing are you to be involved in consultation on decisions made about water management?

您有多希望自己能参与到水资源管理的决策中？

- a. Likely
- b. Neutral/Not Sure
- c. Unlikely
- d. Prefer not to say

19. Which specific water issues would you be willing to be involved in?

您希望参与到下面哪（些）有关水的问题？

- a. Water pollution
- b. Drinking water
- c. Water ownership
- d. Shellfish collection
- e. Biodiversity decline in freshwater
- f. Other (please state)
- g. All of the above

20. How likely do you think ethnic Chinese people should be involved in water management in Christchurch? (Is it a good idea for ethnic Chinese people to be involved?)

您有多希望基督城华人应该参与到水资源管理中来？

- a. Likely
- b. Neutral/Not sure
- c. Unlikely
- d. Prefer not to say

The Government has introduced a Māori concept to guide the management of freshwater. This is called Te Mana o te Wai.

政府引入毛利的概念来管理水资源，并把它称为Te Mana o te Wai.

21. Have you heard of this term?

您有听说过这个短语吗？

- a. Yes
- b. No
- c. Not sure

22. If so, what is your understanding of it? (Optional question)

如果有，能简单说一下您的理解吗？（选答题）

23. If not, what do you think it might mean in relation to the life-supporting importance of water? (Optional question)

如果没有，能简单说一下您对水是维持生命重要性的理解吗？（选答题）

24. Where does your knowledge of water issues come from?

您有关水资源问题的知识来自于哪？

- a. Family
- b. Friends
- c. TV
- d. Print media (newspaper)
- e. Social media
- f. Community boards
- g. Council events
- h. Participation in environmental restoration activities
- i. Others (please state)

25. How many times have you ever engaged in any decision-making process, such as making submissions or engaging in council meetings?

您参与了多少次决策制定中，比如对政府的政策提意见，参加他们的会议？

- a. Never
- b. 1 – 5 times
- c. 6 – 10 times
- d. More than 10 times

26. How likely do you think ECAN staffs should have a particular place or group meeting for us in the decision-making process?

您有多希望 ECAN（政府）员工能提供一个特别的地方让我们参与到决策制定中来？

- a. Likely
- b. Neutral/Not Sure
- c. Unlikely
- d. Prefer not to say

27. Which of the following method you think could increase the efficiency of engagement for our Chinese people? (Could be multiple)

下面哪些方法您认为可以增加华人参与政策的效率？（可多选或者补充）

- a. ECAN should provide more information
- b. Promoting the use of social media
- c. Translated in Chinese
- d. Particular workshop with Chinese people
- e. Others, please state

28. How would you like ECAN to make you aware of these?

您认为 ECAN（政府）怎么做可以让您更容易了解并参与政策制定中来？

Email newsletters in Chinese (中文邮件): Likely/Neutral/Unlikely
ECAN website having Chinese translations of water management policies and engagement opportunities 政府官网有关于水资源管理的中文翻译: Likely/Neutral/Unlikely
Holding public meetings in Chinese (举办中文会议): Likely/Neutral/Unlikely
Having Chinese speaking people available to call at ECAN (政府有中文服务的接线员): Likely/Neutral/Unlikely
Having Chinese speaking staff attend Chinese cultural events to raise awareness and seek views (安排会说中文的员工参加中国文化活动, 以提高文化的认知和征求意见): Likely/Neutral/Unlikely
Others (please state)

29. What types of engagement with ECAN staff on water management would you be most to do?

您有多希望 ECAN (政府) 员工做以下的努力在水资源管理方面可以让华人更容易参与进来?

Email newsletters in Chinese: Likely/Neutral/Unlikely
ECAN website having Chinese translations of water management policies and engagement opportunities: Likely/Neutral/Unlikely
Holding public meetings in Chinese: Likely/Neutral/Unlikely
Having Chinese speaking people available to call at ECAN: Likely/Neutral/Unlikely
Having Chinese speaking staff attend Chinese cultural events to raise awareness and seek views: Likely/Neutral/Unlikely
Others (please state)

Appendix E

Interview Research Information Sheet

Lincoln University

Environment, Society and Design Faculty

Interview Research Information Sheet

I would like to invite you to participate in a project entitled *“How can multicultural communities be engaged effectively in the process of setting long-term visions for freshwater? A case study of the ethnic Chinese community, Ōtautahi, Christchurch”*.

My research focuses on ethnic Chinese participation in decision-making processes in freshwater management. I aim to provide insights into what Te Mana o te Wai (introduced under the recent National Policy Statement for Freshwater Management (NPS) 2020) means to people of Chinese ethnicity living in Christchurch. I am also interested in evaluating what ways of engaging with ethnic Chinese could be effective for regional councils, such as Environment Canterbury, in developing long-term visions for freshwater management under the NPS. The benefit of this research includes the increasing of cross-cultural understanding and participation. It is important for local authorities such as Christchurch City Council and Environment Canterbury (ECAN) to engage with a diversity of cultures. Moreover, some of the future policies might be designed according to the point of view of different ethnic groups.

Your participation will involve meeting with me for an informal interview at a venue of your choice in early August 2022. I will ask you several open-ended questions about your experiences of multicultural community participation in decision-making processes, with a specific focus on water management or planning. I expect this interview will last about 30 minutes to one hour.

Your participation in this research is voluntary and you may decline to answer any question. You may withdraw from the project, including withdrawing any information you have provided, up to 31st August 2022. If you do withdraw at any stage, any information you have already provided will be destroyed. The data will be kept confidential. Only my supervisors and I will have access to the collected data.

The results of this project will be presented in a Master’s thesis, and may also be disseminated at conferences and submitted for publication in academic journals. However, you may be assured of your anonymity in this investigation: the identity of any participant will not be made public, or made known to any person other than the Human Ethics Committee in the event of an audit. To ensure anonymity, interview data will be seen only by me and my supervisors, and all files will be stored in an electronic form with password protection. A pseudonym will be used when quoting from this data in publications and presentations, and no information will be reported in a way that might identify individuals. For example, I will use the term ‘public official’ as a pseudonym for staff from ECan staff, council representative(s), community members, staff from the Ministry for Ethnic Communities, and use the term ‘Local Chinese leader/manager’ for local Chinese community group leaders, if you would like to keep anonymous.

This project is conducted as a research requirement for the Master of Water Resource Management by Chu Zhao under the supervision of Dr Steve Urlich and Dr Sarah Edwards, who can be contacted via the details below. We will be happy to discuss all matters concerning your involvement in this project.

The project has been reviewed **and approved** by the Lincoln University Human Ethics Committee.

Researcher: Chu Zhao, Master of Water Resource Management Student, Faculty of Environment, Society and Design, Lincoln University

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Appendix F

Interview Questions

Questions for Council representatives (CCC/ECan), community representatives, and ECan staff involved in the Christchurch West Melton Zone Committee /ECAN staff (responsible for communication & engagement part)

1. Could you please introduce yourself first? Could you please describe your background, role, and working experiences, including anything that relates to public participation in planning/water management?
2. Tell me about the Zone Committee and how it engages with the local community to make decisions on freshwater issues?
3. In your opinion, how does public participation affect decision-making on water management or planning issues?
4. The NPS-FM calls for long-term visions for freshwater to be developed with Māori and the wider community. What are the challenges and opportunities of engaging with different ethnic communities in this process?
5. Which approaches are you using for engaging different ethnic groups?
6. Are they effective methods? How do you measure the effectiveness of this engagement?
7. More specifically, ethnic Chinese people make up 15% NZ population, can you tell me about your previous experiences in engaging with the ethnic Chinese community on water management issues?
8. Are you aware of any previous engagement on water management issues with the ethnic Chinese community? If so, what was involved in these engagement exercises?
9. Are there any barriers when you engage with different ethnic communities/ ethnic Chinese? How do you overcome those barriers?
10. What are the challenges and opportunities do you think that the ethnic Chinese community might bring to public engagement on water management issues?
11. Can you suggest any improvements to current methods of engaging with the ethnic Chinese community in planning/water management process?
12. What lessons have emerged from public engagement in water management that could be tailored to different ethnic communities?
13. Based on our discussion, is there anything you would like to add?

Questions for Ministry for Ethnic Communities staff:

1. Could you please introduce yourself first? Could you please describe your background, and your current role.
2. How does your organisation (Ministry for Ethnic Communities) approach multi-ethnic community engagement in planning/policy issues?
3. What engagement processes do you follow, and how do you assess whether these engagement exercises have been effective?
4. Following from the previous question, can you speak more specifically about engagement with the ethnic Chinese community in a large city such as Christchurch?
5. Are there any barriers when you engage with different ethnic community/ethnic Chinese? How do you overcome those barriers?
6. Have you got any good examples of local authorities engaging with multi-ethnic communities in planning/ policy issues?
7. Is there any improvement you would like to suggest for council such as ECAN for engaging with the Chinese community in planning/water management processes?
8. The NPS-FM calls for long-term visions for freshwater to be developed with Māori and the wider community. What are the challenges and opportunities of engaging with different ethnic communities in this process do you think?

I have some questions based on information I have read on your website:

9. How might the responsiveness of the public sector to the needs of ethnic communities be improved?
10. How might ethnic communities be helped to achieve their aspirations, particularly around participating in environmental issues?
11. Based on our discussion, is there anything you would like to add?

Questions for local Chinese community groups leaders:

1. Could you please introduce yourself first? Background, work/study experience in New Zealand, and position in local community?
2. When living in Christchurch, are there any water issues that concern you and your community? If so, what are these issues? Where does your knowledge of these issues come from?

3. Have you heard of 'Te Mana o te Wai'?

-If so, where does your knowledge of this term come from? What is your understanding of this term?

-If not, the Government has introduced a Māori concept to guide the management of freshwater. This is called Te Mana o te Wai – the life-force of water. What do you think it might mean in relation to the life-supporting importance of water?

4. What is your knowledge of how members of the public can participate in freshwater management?

5. Have you/your community ever engaged in any planning/water management process?

6. Are you willing to participate in planning/water management process? Why or why not?

7. Do you think Chinese community participation in planning/water management is important? Why or why not?

8. What advantages and disadvantages do you think the Chinese community bring to water management/planning processes?

9. Are there any barriers you think for ethnic Chinese to engage in these processes? How do you think to overcome those barriers?

10. Are there any recommendations you think that Environment Canterbury would help to improve engagement with ethnic Chinese people?

11. Based on our discussion, is there anything you would like to add?

Appendix G

Consent Form

Name of Project: How can multicultural communities be engaged effectively in the process of setting long-term visions for freshwater? A case study of the ethnic Chinese community, Ōtautahi, Christchurch.

I have read and understood the description of the above-named project. On this basis I agree to participate in the project, and I consent to publication of the results of the project with the understanding that anonymity will be preserved. I understand also that I may withdraw from the project, including withdrawal of any information I have provided, up to 31st August 2022.

I consent to the following (please tick all that apply):

- Having an audio or video recording made of my interview.
- Having notes taken of my interview.
- Being identified by my profession or role (please state):

Name: _____

Signed: _____ Date: _____