Title: Exploring Sustainability in Community Based Natural Resource Management Groups in Southland, New Zealand

Author: Annichje Riemersma

Degree: Environmental Management (EM301), Southern Institute of Technology

Supervisor(s): Dr Anna Palliser

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CHAPTER ONE: INTRODUCTION

1.1. Introduction

This research explored the views of locals in Southland, New Zealand (NZ), who were involved in Community Based Natural Resource Management (CBNRM) groups, in relation to their views on sustainability of these groups. Sustainability, or "ability to carry on into the future", is important for organisations to cope with change, and adapt to shifting environmental, social, political and economic conditions. CBNRM groups are local, usually volunteer organisations, that carry out environmental work, with the aim of long-term sustainable management, and social and economic benefits for communities.

The research took place in Southland as this is where the researcher was based, and there is a growing CBNRM movement. The researcher is personally involved in conservation work, as a student on the Environmental Management Bachelor program at the Southern Institute of Technology (SIT), and as trustee on the Bluff Hill Motupohue Environment Trust (BHMET), which led to the motivation and development of the research.

As a social science project, an emphasis was placed on listening to and validating participants' personal experiences, using qualitative methodology. This will include semi-structured interviews and a reflexive approach.

1.2. Rationale

The NZ government has followed a world-wide trend, shifting resource management from centralised, government-agency driven to promoting decentralised, community-led projects, (Jones & Kirk, 2018, p.116). CBNRM and co-management is underpinned by political, neoliberal principles of decentralisation and the use of market mechanisms to transform nature into a commodity, working towards sustainable development, conservation goals, and producing a green economy (Acciaioli & Afiff, 2018, p.241). CBNRM groups in NZ have proliferated alongside public awareness of Resource Management Act limitations to protect the environment, and financial constraints of agencies to do so (Peters et al, 2015, p.187). The NZ government also introduced Predator Free 2050, an ambitious goal to rid the country of damaging introduced predators that threaten native species and the economy (PF2050Ltd, 2020).

Additionally, the benefits of undertaking resource management within communities is recognised, because they have local skills, resources, knowledge and enthusiasm, and resource management goals are considered more sustainable in the long-term when managed locally (Jones & Kirk, 2018, p.116). Community groups are often made up of volunteers, and usually require financial, technical, scientific and resource support from agencies (Jones & Kirk, 2016, p.116, Peters et al., 2015, p.180). Realistically, groups can struggle to get appropriate funding and support (Peters et al, 2105, p.185), and the growing complexity and time requirements of managing groups, with increasing administrative, governance, health and safety, and regulatory issues, can lead to groups struggling to achieve their goals and retain and attract volunteers (Gooch & Warburton, 2009, p.161). This can endanger group longevity and effectiveness, and Peters et al. (2015) found groups require more support, facilitation and engagement.

There is a known link between resilience of communities and organisational resilience, where continued operation during and after crises significantly influences long-term recovery and the well-being of organisations and communities (McManus, 2007, p.1). Organisations are becoming more aware of the need to prepare for identified crises and the unexpected, as demonstrated by the COVID pandemic, reminding us that change is constant. Resilience, essentially the capacity of a CBNRM group to respond to changing economic, social, political and environmental conditions, is critical to group longevity (Gooch & Warburton, 2009, p.159). Resilience is a product of the organisation's situational awareness, adaptive capacity, and management of keystone vulnerabilities (McManus, 2007, p.1).

In reality, there appears to be a conflict between responsibility and workload required of CBNRM groups, and their ability to carry out and maintain this important environmental work as volunteers. The researcher noted from personal experience that this conflict can lead to work overload, feeling undervalued, negativity towards agencies, and sometimes results in resignation of group members. The loss of social capital from CBNRM groups can ultimately affect the success of environmental work. It is very important that CBNRM groups are effective and successful, to achieve potential community social and economic benefits, and to work towards New Zealand's Predator Free 2050 goals.

Complex socio-ecological systems are better understood by investigating multiple perspectives (Gruber, 2010, p.1), correlating to the purpose of this research, to gather strands

of experience to add to global knowledge. The concepts of sustainability, resilience, and adaptive management are well researched and were reviewed in literature. However, the researcher was interested in how sustainability worked locally in CBNRM. This is in line with emergent, social research, where phenomena are localised, and participants experiences are unique and valid. It was hoped that the research would better inform how CBNRM groups are supported locally, how groups can become more resilient by learning from each other, and may work towards increasing sustainability by better planning and responding to change.

1.3. Aim

To investigate the experience of locals who are involved in Community Based Natural Resource Management groups in Southland, NZ, and their thoughts on sustainability of groups.

1.4. Objectives

1)   To review literature to investigate CBNRM, and resilience and sustainability in CBNRM.

2)   To approach 7 people who are involved with different CBNRM groups in Southland.

3)   To conduct semi-structured interviews in person with each participant about their thoughts and experiences of sustainability in groups.

4)   To transcribe interviews.

5)   To use emergent interpretation processes to analyse data.

6)   To compare participants experience.

7)   To compare data to sustainability and resilience in CBNRM literature.

8) To make conclusions about sustainability in CBNRM groups in Southland.

9) To make recommendations about how CBNRM groups in Southland could work towards to increasing sustainability.

10) To make recommendations for further research and next steps for CBNRM in Southland.

1.5. Timeframe and Budget

The budget was minimal, and equipment was limited to notebooks and a recording device borrowed from the SIT. Interviews were conducted within Southland, to limit travel costs which were covered by the researcher.

Table 1:

ACTIVITY / PERIODS	March	April	May	June	July	August	September	October	November
Proposal	X	X							
Literature Review		X	X						
Methodology Chapter		X	X						
Prepare/Organise Interviews			X	X					
Conduct Interviews				X	X				
Transcribe Data				X	X				
Results					X	X			
Interpret Data/Discussion					X	X	X		
Abstract							X		
Formulate Draft Report						X	X		
Formulate Final Report								X	X
Poster								X	
3-min Thesis presentation							X		
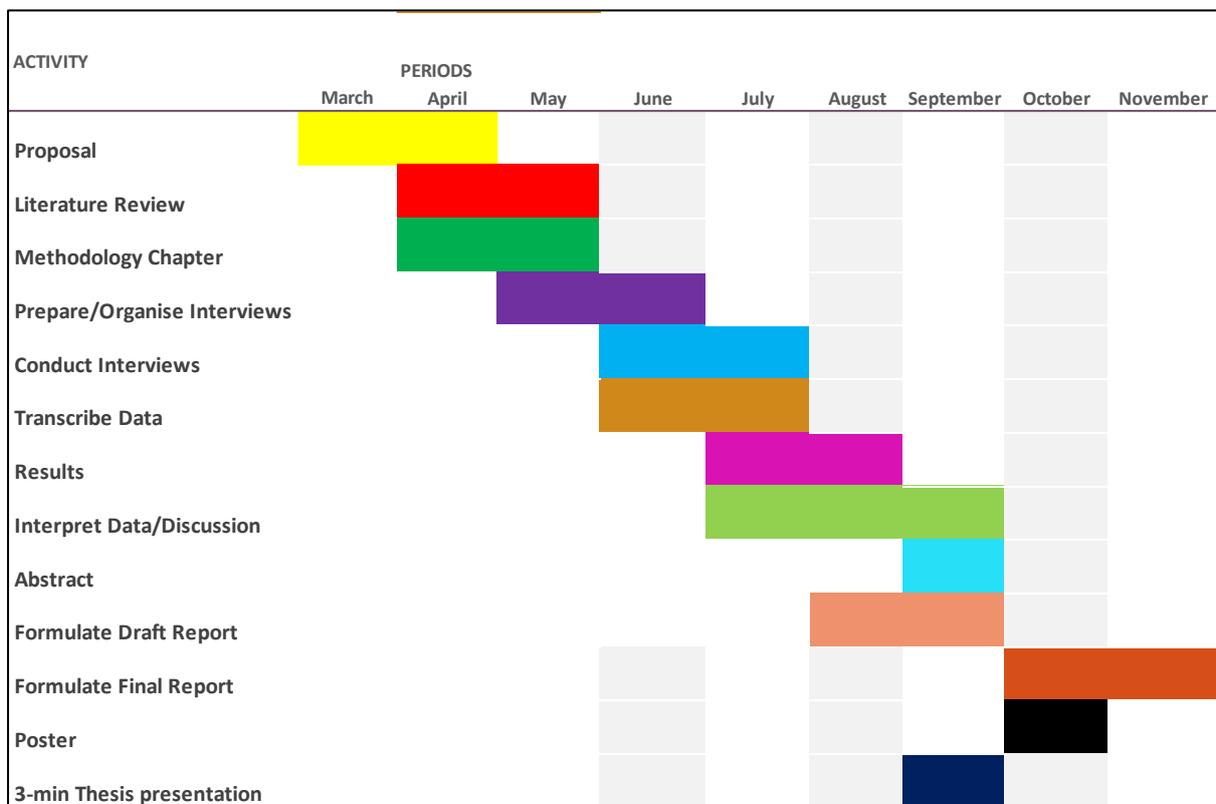
Timeline of the research.

1.6. Health and Safety

Health and safety was covered by a Risk Analysis and Safety Management System (RASMS) form (Appendix A). A Daily Schedule form was filled out as research activities took place. The researcher ensured the supervisor was informed of interview dates and places, due to potentially interviewing at participant's homes, and the researcher carried a mobile phone at all times.

1.7. Ethics

The research was covered by SIT blanket ethical approval. To upholds ethical standards an information sheet (Appendix B), a consent form (Appendix C) and question sheet (Appendix D) were given to each participant. Participants were over the age of 18years. In keeping with informed consent, the information and question sheet and consent form were sent prior the interview, allowing participants to familiarise themselves (Houghton et al, 2010, p.5). Signed consent forms were collected with participants keeping a copy. Potential power imbalances may exist between researcher and participants (Houghton et al. 2010, p.6), so the researcher created space for questions and openly stated conflicts of interest, as a non-active trustee on BHMET, prior to commencing interviews. This also created a dual-role awareness for the researcher, with both personal and professional interests at play (Houghton et al. 2010, p.11).

Transcriptions were sent back to participants for alterations, because interviews are a 'creation' between researcher and participant, thus participants have a right to a copy (Forbat & Henderson, 2005, p.1120; Palliser, 2015). If participants did not reply within 2 weeks, it was assumed no changes were required. Data storage was explained explicitly consent forms that participants signed.

1.7.1. Emergent Research and Ethics

Emergent research presents emerging and changing ethical issues and require researchers to remain mindful of changing and ongoing impact on participants, while being simultaneously "ethically sensitive and morally competent" (Houghton et al. 2010, p.13). This calls for an "ethics-in-process" approach (Cutcliffe & Ramcharran, 2002, p.1001). This may sometimes

conflict with informed consent, as issues that need to be stated at the outset may not always be known (Houghton et al. 2010). Emerging ethical issues were discussed with supervisors as they emerged and dealt with appropriately. Keeping a research diary assisted with emerging ethical issues.

1.7.2. Confidentiality

Confidentiality was of utmost importance because Southland is a sparsely populated region where 'everyone knows each other', particularly in the environmental field. In social research, ethics is a subjective process (Houghton et al. 2010, p.3). When publishing the report, it was decided not to use pseudonyms and some material was not used at all, to avoid risk of "deductive disclosure" or revealing identities (Kaiser, 2009, p.1). Qualitative researchers face conflict between providing detailed accounts of the social world and protecting identity (Kaiser, 2009, p.1). In this case, it was decided not to provide background accounts of groups or participants.

1.7.3. The Reflexive Approach

A reflexive approach is a continuous process of reflection, enhancing the quality, validity and rigor in qualitative research (Ibrahim & Edgley, 2015). This requires an awareness of the researcher's boundary judgements, values and personal context, while becoming aware of the other's (Ulrich & Reynolds, 2010, p.283). This was begun by writing a statement of reflexivity, with the process outlined in Chapter 2: Methodology, and the statement presented in Appendix Item E.

1.8. Limitations

Limitations included time constraints, particularly around transcribing. The use of some quotations and material was limited due to confidentiality, or the wish of participants to withdraw information. The subjectivity of qualitative research can be a limitation, although as much transparency as possible was provided, however due to the size of the project and its word limit, subjectivity was required to select only the material that was considered most important relating to sustainability.

1.9. Delimitations

Some data was not used if it was not relevant to the study themes and new material was added, at the discretion of the researcher. Small samples size is consistent with qualitative methodology, on the basis it will add perspective to the research by giving full appreciation to every participant's version of experience (Eastman, 2018, p.65). It was decided to interview participants from a variety of groups across the Southland landscape. This meant that generally only one perspective per group was obtained, which could limit the views of sustainability presented.

1.10. Conclusion

This chapter provided an introduction into the rationale behind the research and presented aims and objectives. It presented a timeframe, and health and safety and ethical concerns, and limitations and delimitations have been covered.

CHAPTER TWO: LITERATURE REVIEW

2.1.   Introduction

The literature review was thorough and expansive, due to the nature of qualitative study, the researcher's development as a social researcher, and to better understand the context behind the participant's experience. CBNRM in NZ was reviewed first, followed by an exploration of methodology and ethics. Sustainability was explored, followed by organisational resilience and effectiveness characteristics of CBNRM. Lastly, an overview of resilience planning, or strategic planning was presented.

2.2.   Background of CBNRM

Information about the general definition, purpose and function of CBNRM groups and the New Zealand setting was provided by Jones and Kirk (2018) and Peters et al. (2015). Peters et al. (2015, p.179) developed a profile of 296 community groups in NZ, looking at group and project characteristics, activities, objectives and project partner support. The aim was to improve delivery of support and develop meaningful partnerships to improve group outcomes and biodiversity goals. Peters et al. (2015, p.187) recommended further research into group longevity, governance, partnership models and environmental outcomes.

Roka (2019, p.1) presents CBNRM as a decentralised, localised, self-regulated system, to achieve social and conservation goals and attempt to address issues of centralised management of resources, that operate in a top-down manner and result in detachment from communities. Gruber (2010, p.63) provided a definition of effective and successful CBNRM as: those that make progress towards increased effectiveness and efficiency of managing natural resources (implying that natural ecosystems and resources are either recovering or sustainably managed) and attempting to sustain the local human population economically, socially, and culturally. Both Roka (2019) and Gruber (2010) provide a background and

characteristics of the CBNRM model, while Roka (2019) discusses benefits, case studies, challenges and the future of CBNRM. Palliser (2015) provided a good overview of resilience and adaptive capacity in CBNRM in NZ, and thoroughly outlined methodology, ethics, the reflexive approach, and conducting and structuring qualitative, emergent research.

2.3.   Qualitative Methodology

Before commencing data collection, becoming a social researcher required embedding in literature on qualitative inquiry methodology and the phenomena (Eastman, 2018, chapter 3; Palliser, 2015, chapter 5; Schutt, 2018, chapter 10), and embedding in the phenomena itself in its naturalised setting (Palliser, 2015). A reflexive approach, and a statement of reflexivity, was used throughout the research, as part of the methodology and a sound ethical approach (Ibrahim & Edgley, 2015; Palliser, 2015, p110). A high standard of trustworthiness, quality and rigor was required (Eastman, 2018, p.78) and the use of credibility tools was explored, including triangulation (Carter et al., 2014, p.545; Eastman, 2018, p.77; Palliser, 2015, p.114).

Semi-structured interviews allowed for a two-way conversational style of communication (D'Arcy, 1990, Chapter 8: Tool 9), and interview style was explored in research by Finlay (2006, p.1) and Binder et al. (2012). Participant recruitment was investigated (Eastman, 2018, p.67; Marshall, 1996, p.523), and research instruments determined, including a research diary (Houghton et al, 2010, p.13; Palliser, 2015, p.141). Data was transcribed using sound ethical guidelines (Palliser, 2015, p.142; Kitchin & Tate, 2000, p.237). Palliser (2015, p. 142) and Eastman (2018, p.72) demonstrated how to interpret and organise qualitative data, while Schutt (2018, p.323), Bennett et al. (2018) and Wong (2008) provided details of managing and organising data and interpreting and developing themes and patterns.

2.4.   Ethics in Qualitative Research

A qualitative researcher is simultaneously interacting with participants and interpreting "data", therefore being responsible for addressing initial and ongoing ethical concerns. This presents challenges including confidentiality, informed consent, anonymity, and consequences of relationships between researcher and participants (Sanjari et al., 2014, p.1).

Prior to gathering data, the researcher needed to gain an awareness of their own values, interests and personal context, that could affect their interpretations, and would assist others to better interpret the research. This was initiated by writing a statement of reflexivity, with an example presented by Palliser (2015, p.104), forming the basis of a reflexive approach (Ibrahim & Edgley, 2015; Lyle, 2009, p.294; Palliser, 2015, p.110). The practises of effective boundary critique (Ulrich & Reynolds, 2010, p.288), bracketing and creative indifference (Joyce & Sill, 2010, p.19), were researched to initiate a process of developing self-awareness in relation to the research and participants.

An "ethics-in-process" approach was used to deal with emerging ethical issues (Cutcliffe & Ramcharran, 2002, p.1001), and tools of credibility created a feedback system and accountability (Eastman, 2018; Palliser, 2015). Kaiser (2009) and Houghton et al. (2010) presented how to protect confidentiality, anonymity, and ensure informed consent, beyond providing a simple consent form, while Palliser (2015, p.140-141) outlined procedures to protect confidentiality during data use. Evaluating the researcher-participant relationship was also of concern (Houghton et al., 2010, p.6).

2.5.   Sustainability and Resilience

There are many definitions of sustainability, but for the purpose of this research keeping it simple was important, therefore a phrase to work with was "the ability to carry on into the future", or "maintaining options for the future" (Gooch and Warburton, 2009, p.159). A more complex definition expanded the understanding of sustainability: "a set of effective and efficient actions taken by an organization, through good governance, to ensure the economic

stability, growth, and financial success, with the most positive societal outcome and the least negative environmental impact" (Alibasic, 2018, p.37). The United Nations states: "development that meets the needs of the present without compromising the ability of future generations to meet their own needs." (Alibasic, 2018, p.3). Sustainable organisations commit to pursuing and developing a collective understanding of sustainability (Alibasic, 2018, p.2).

To increase resilience of organisations and communities, it was necessary to understand resilience, starting with a definition: "ensuring an enterprise has the current and ongoing capacity and capability to continue to achieve its specified (or unspecified) purpose(s) in the face of predicted and unpredicted exposure to hazards, disruptive events and continual stress" (Wright et al., 2012, p.51).   This could be achieved by: "anticipating, preventing, mitigating, responding expediently to minimise the extent, duration and cost of any disruption, learning, adapting and recovering". There are many ideas of resilience, and Wright et al. (2012, p.48) state that they are all viewpoints of the same idea. This was important to remember in my research, that all participants experiences, and groups ideas of sustainability and resilience were equally valid.

In the organisational context, McManus et al. (2007, p.1) defined resilience as "a function of: situation awareness; management of keystone vulnerabilities and adaptive capacity in a complex, dynamic and interconnected environment", enabling people to deal with predicted change and unforeseen crises. McManus (2007, p.4) presented a resilience management framework combining risk management, business continuity and emergency management applied to industry sector organisations in NZ. This may not apply directly to small CBNRM volunteer groups, however, some groups incorporate infrastructure management, such as plant nurseries, trap networks and staff employment, so the concepts may be useful. A resilient organisation can see opportunities and move forward in the face of adversity (McManus et al. 2007, p.3).

Gruber (2010) identified the most effective characteristics of CBNRM, with twelve organisational principles identified: "(A) public participation and mobilization; (B) social capital and collaborative partnerships; (C) resources and equity; (D) communication and information dissemination; (E) research and information development; (F) devolution and

empowerment; (G) public trust and legitimacy; (H) monitoring, feedback, and accountability; (I) adaptive leadership and co-management; (J) participatory decision making; (K) enabling environment: optimal preconditions or early conditions; and (L) conflict resolution and cooperation." (Gruber, 2010, p.55). Social capital, adaptive leadership, collaborative partnerships and participatory decision making were identified as most important and a component across most of the characteristics (Gruber, 2010, p.63). The principles were useful in developing and comparing emerging themes in my research.

Gooch and Warburton (2009, p.158) explored capacity of CBNRM groups in Australia to proactively respond and adapt to changing settings. They identified attributes that enhanced or eroded adaptive capacity, and highlighted issues influencing resilience. Three concepts of resilience, adaptability and transformability were used as a framework to: develop an understanding of a groups existing circumstance; negotiating and making sense of change; and considering and reflecting on choices (Gooch & Warburton, 2009, p.168). Some factors that they found enhanced resilience was: ensuring access to resources; effective leadership and ability to negotiate the political nature of NRM decision-making; and a strong sense of purpose linked to a sense of place (Gooch & Warburton, 2009, p.166). The framework may be useful for government agencies to assist with community capacity building and identifying support and resources that groups may need (Gooch & Warburton, 2009, p.168). This paper was useful when developing and comparing themes and recommendations in my research.

Mountjoy (2014) determined and discussed 10 key characteristics to build capacity in CBRNM and achieve successful conservation outcomes: respect, shared values, education/outreach, communication, marketing, planning, equipment/supplies, funding, leadership and motivation. Mountjoy (2013) explored links between capacity in groups and resource management plan implementation success. Findings suggested bonding social capital and outreach were crucial, and found linkages between factors, for example leadership, motivation, and vision, where improving one would positively impact another. Leadership, motivation and vision also best distinguished highly successful groups.

2.6. Strategic Planning or Resilience Planning

Gooch and Warburton (2009, p.159) stated to manage resilience, first we must understand how it is acquired or lost and determine areas of intervention to increase resilience. This requires groups to think creatively, map out alternative scenarios, ask questions about consequences, and 'who, what, and when' interventions are enacted. Planning for resilience is part of managing resilience. Bryson (2015, p.515) stated that "strategic planning is a leadership tool that may enhance strategic thinking, acting and learning", and is a deliberative and disciplined approach to improved decision-making and acting in a way that shapes and guides the organisation. Strategic planning for communities tends to have a holistic focus, including social, economic, political, environmental and cultural, and is more participatory, action oriented and sensitive to the community's strengths, weaknesses, opportunities and threats (Bryson, 2015, p.516). It is tailored to fit a specific community, or group, and helps them deal effectively with changing environments. It enhances organisational effectiveness, responsiveness, resilience, teamwork and expertise, and positively affects the wider community and social systems in which the organisation works. The paper described strategic planning purpose and outlined a step-by-step planning process (Bryson, 2015, p.515).

Resilience planning is resilience thinking applied to strategic planning. Sellberg et al. (2018) looked at resilience planning in practice in NRM in Australia and outlined four recommendations for successfully using and embedding resilience strategies into organisations. It includes a discussion and literature review about resilience planning, and presents the Resilience Planning Framework (Sellberg et al., 2018, p.909, figure 3). This paper could initiate reflection on how to use resilience planning in practice for sustainability. Mitchell et al. (2014) apply resilience thinking to strategic planning in NRM, developing the 'planning-by-doing' framework to bridge the gap from theory to practice. The authors emphasized 'planning-by-doing' instead of 'planning-then-doing', reminding practitioners that they are not separate activities, rather intertwined, flexible and continuous (Mitchell et al. 2014, p.310).   The goal was to collectively explore what is enabling or hindering the existing system from achieving its set of shared ideals. For innovative experiments to be realised and nurtured, it requires adequate resourcing and monitoring, which is essential to learning

(Mitchell et al. 2014, p.310). The framework could be useful for groups interested in applying resilience thinking.

2.7. Conclusion

This chapter presented a thorough review of literature to prepare the researcher in terms of methodology and ethics of qualitative research. An understanding was gained of the background of CBNRM, and sustainability and resilience, specifically relating to non-profit and community-based organisations. Strategic planning, or resilience planning was explored

CHAPTER THREE: METHODOLOGY

3.1. Introduction

This research used qualitative inquiry to try to understand the experience of participants in relation to a phenomenon, in the participants 'natural setting', and within the context in which the phenomenon was situated (Eastman, 2018, p.60). The phenomenon was the sustainability of CBNRM, and the focus was to understand the meaning that participants had about this phenomenon. The following chapter presents the methodological approach, including a statement of reflexivity. It discusses aspects of conducting a high standard of qualitative research, including preparation as a social researcher, data collection and data analysis.

3.2. Statement of Reflexivity

A social researcher should be conscious of their reference system while simultaneously developing an awareness of the participants' reference system (Ulrich & Reynolds, 2010, p.283). A reference system is how we conceive and define a situation, based on our in-built selectivity, which in turn is made up of our values, life experiences, pre-conceptions of the phenomena and personal contexts (Ulrich & Reynolds, 2010, p.253). Boundaries make up our reference system and inform our thinking. By questioning and developing understanding

of them, called boundary judgement, we develop a holistic awareness of how we relate to others, how we frame situations, and reveal our judgements of them (Ulrich & Reynolds, 2010, p.245). Boundary judgement, or boundary critique, allows a social researcher some control of them, instead of boundary judgements operating unrecognised in the background. This helps to identify one's influence on interactions and how data is interpreted, ultimately affecting findings (Ulrich & Reynolds, 2010, p.283). Effective boundary critique is a constant, fluid and iterative process of unfolding, and operates in the background as a reflective framework to increase tolerance and understanding, improve communication, and includes a willingness to revise one's own initial views of a phenomenon (Ulrich & Reynolds, 2010, p.283). This is also called 'bracketing' in Gestalt psychotherapy, whereby one does not attempt to be free of preconceptions and values, rather is able to put them to one side, in order to be fully present with the participants experience and avoid premature judgements (Joyce & Sills, 2010, p.19). The practise of creative indifference is also useful and encourages a state non-attachment to an outcome (Joyce & Sills, 2010).

Despite these practises, it is inevitable a researcher's selectivity and boundary judgements will influence the research, in fact, the researcher can be considered a 'tool' in themselves, becoming a part of and shaping the research (Palliser, 2015, p.103). The key is to remain aware of how this affects research and provide transparency for readers. Humans are increasingly the "instrument of choice", due to our ability to respond, perceive, and interact in dynamic situations, and synthesize information (Sanjari et al. 2014, p.1)

A statement of reflexivity is a process that helped me to become conscious of my values, interests, and personal context that could have affected my interpretations, and hopefully assisted others to better interpret the research. This reflexive approach was a continuous process of reflection, that enhanced the quality, validity and rigor in this qualitative research (Ibrahim & Edgley, 2015; Palliser, 2015, p.110)

3.2.1. My Statement of Reflexivity

The Statement of Reflexivity (Appendix E) is important to read to help interpret the research and understand the researcher's position in relation to the research.

3.3. Methodological Overview

3.3.1. Becoming a Social Researcher

As research began, I learned about becoming a social researcher and realised I was part of the research itself. Literature and discussions with my supervisor developed the methodological approach (Palliser, 2015; Eastman, 2018; Joyce & Sills, 2010; Ulrich & Reynolds, 2010). An integral part was developing my skills and attitude and initiating self-reflection.

3.3.2. Embedding in the Research

Immersion in literature on sustainability and resilience in socio-ecological systems (SES) provided context and understanding (Palliser, 2015, p.137). I was already embedded in the research phenomena and research location and context, due to my position as trustee of BHMET (Palliser, 2015, p.128). However, during the time of the research a 'leave of absence' was taken. My passion and knowledge of the topic was strong, so I attempted to maintain an attitude of curiosity and presence, while simultaneously maintaining a lack of investment in any particular outcome (Joyce & Sills, 2010, p.40).

3.3.3. Standard and Trustworthiness of Qualitative Research

Qualitative research must maintain a high standard of trustworthiness, quality and rigor by demonstrating credibility, transferability and confirmability (Eastman, 2018, p.78). Transferability means providing sufficient information about the context and researcher, and confirmability enables readers to see that findings are true of the data, and not preferenced by the researcher (Eastman, 2018, p.78). Various tools ensured a high standard of this research, some of which have already been discussed: boundary critique, reflexive approach, creative indifference, and transparency of how the researcher was embedded in the phenomena. Other credibility tools are discussed further.

3.3.3.1. Credibility Tools

a) Peer review: this was utilised with a research supervisor, Anna Palliser, and research teacher, Christine Liang. Research was discussed at every stage and whenever required. The supervisor was well-informed about the phenomena but not directly involved (Eastman, 2018, p.78), and provided perspective, and was a sounding board for developing ideas and themes.

b) Participant Feedback: sharing data with participants was part of the reflexive approach and sound ethics, while determining accuracy (Eastman, 2018, p.77, Houghton et al, 2010, p.9).

c) Triangulation: multiple sources of data or methods helped gain a better understanding of the phenomena from different perspectives (Carter et al., 2014, p.545; Eastman, 2018, p.77; Palliser, 2015, p.114). Sources included semi-structured interviews, literature, field notes/diary, conversations, and observations. Rather than testing validity, because every participants perspective was considered valid, triangulation tried to understand as much as possible about those experiences (Palliser, 2015, p.114).

3.3.4. Exploring Relational and Interview Style

My personal values of self-awareness, compassion, healthy and positive relationships, and my empathetic and adaptable approach to life positively influenced my interview style. The explorative and reflexive interview process results in a style of dance, composed of synchronised and spontaneous interactions (Finlay, 2006, p.1), only possible with face to face interviews. The process is much more than gathering data, it is an organic relationship aiming to investigate the participants experience. What emerges depends on the quality of the relationship, which started as soon as participant and interviewer met (Binder et al. 2012, p.12).

3.4. Method

3.4.1 Recruitment Sampling

Purposeful, or judgement sampling, was used to recruit participants, which required subjectivity to select participants that added value and helped to understand complex social issues (Eastman, 2018, p.67; Marshall, 1996, p.523). New recruits were chosen to explore new themes emerging during data collection (Marshall, 1996, p.523). Qualitative research is often emergent because it changes as research progresses (Grey, 2014).

Groups were selected from the Southland Ecological Restoration Network website (https://www.sern.org.nz/organisations/). Groups coordinated conservation activities including: pest trapping, managing native species, revegetation, removal of weed species, and litter clean-ups, mostly carried out by volunteers. Governance bodies also comprised of volunteers, carrying out networking, administration, coordinating events, managing volunteers, working with local agencies, and accessing funding. Groups were spread across Southland, representing the diversity in CBNRM, with small to large groups, rural and urban, and varying public profiles and degrees of perceived 'success'.

One or two members from each group were interviewed, usually including a governing member, resulting in 7 interviews. Sample size should be big enough to deliver meaningful data, but not that the data volume is over-whelming: between three and eight participants is suggested (Eastman, 2018, p.68). Local groups allowed face to face to interviews, which was important due to methodology, and time and budget constraints.

A research diary was used to record field notes and manage emerging ideas and themes, as part of sound qualitative methodology. This helped to 'coalesce' thoughts into form, where the act of writing creates space for the following idea to emerge (Palliser, 2015, p.141). Reflective writing promotes internal dialogue, encourages awareness of the self and the purpose of the study (Houghton et al, 2010, p.13).

3.4.2. Schedule Interviews

Appointments were booked, contact details provided, and information sheets, consent forms, and question sheets sent ahead of time, allowing participants to think about the phenomena and feel comfortable with the upcoming interview. Due to the level 2 restrictions of the COVID pandemic, which allowed for face-to-face interviews, participants were also offered Zoom interviews as an alternative, however these were not required.

3.4.3. Interview Structure

Question sheets (Appendix D) helped to guide the semi-structured interviews, which allowed for a relaxed, two-way conversational style of communication and made space for questions to develop and new ideas to emerge (D'Arcy, 1990, Chapter 8: Tool 9). The questions/topics were designed to initiate conversation and thought, using everyday language, and not academic terms.

3.4.4. Conduct Interview

Interaction was deliberately relaxed, and participants chose the venue. I was conscious of how I was dressed and seated, but not to the point of feeling unnatural, and shared in food and drinks. Participants were informed of their rights, and my position as trustee on BHMET, and asked if there were any questions. Signed consent forms were collected, including consent to record, and the information and question sheets looked over.

The participant could "veer off" but the researcher also attempted to get questions answered by "bringing them back", however this was not always a priority. This required a reflexive approach and skilled awareness to make decisions in the moment, and boundary critique. Inevitably, there are power imbalances in research, and it was important to try not to ask leading questions to control the responses given (Palliser, 2015, p.136).

The interview was ended, participants thanked and reminded they could access their information and would receive a copy of the transcript. They were reminded they could get in contact with the researcher or supervisor (Forbat & Henderson, 2005, p.1114).

Immediately following, field notes were taken to contextualise data and reflect on the interaction (Eastman, 2018, p.71).

3.5. Data Analysis

The purpose of the social researcher is to put individual experiences into words, to understand and categorise them, so the essence can be recorded in writing and result in a comprehensive account of the phenomena (Sanjari et al. 2014).

3.5.1. Transcribing data

Interviews were transcribed as soon as possible, because emerging questions and ideas could inform the next interview, meaning data analysis began during the interviewing stage (Palliser, 2015, p.142). Immersion proceeded immediately by reflection, note taking, identify themes, and asking further questions of the participant if required (Palliser, 2015, p.142; Kitchin & Tate, 2000, p.237).

3.5.2. Interpreting Data

Once interviews were concluded, a systematic process of reading and re-reading took place, recording first impressions, keywords, explanations, phrases, objects, experiences and events that stood out (Eastman, 2018, p.73). Interpretation allowed developing themes to be expressed, as ideas or phrases representing both the participant's original words, and the researcher's interpretation (Eastman, 2018, p.73). It was vital to practise self-awareness, to understand how I influenced the themes that were standing out to me (Ulrich & Reynolds, 2010, p.283), and discussing these with my supervisor was useful. Interpretations were made cautiously to enable all perspectives to be acknowledged (Palliser, 2015, p.142).

3.5.3. Data Comparison

The last stage required looking for patterns across all the whole data set, and comparison between participants experiences (Eastman, 2018, p.75). Themes were reviewed, clarified,

contextualised and arranged into related groups or sections, and continuously re-organised. This material was then peer-reviewed, before being used further. Themes were compared to relevant literature and to each other. Potential generalisations, links, conclusions and recommendations were made.

3.6. Conclusion

This chapter presented the methodological approach for the qualitative inquiry and the process of becoming a social researcher. It endeavoured to clarify how I was already embedded in the phenomena, while simultaneously attempted to discover and present the lived experience of others. It also attempted to show that social research is often a fluid process, lacking the clear boundaries between the different stages of data collection and data analysis. This was also why the following chapters, Results and Discussion, were merged into one section, Chapter 4: Results and Discussion, as during the interpretation process, they became one and the same.

CHAPTER 4: RESULTS AND DISCUSSION

4.1. Introduction

The material was arranged into themes by interpretation and comparison, and these fluid processes meant results and discussion were amalgamated into one chapter. Three themes emerged. Theme 1 – "Group Dynamics", presented the nature of groups, and Theme 2 –

"Beyond the Group", presented how groups interacted with their community and stakeholders. Themes 1 and 2 discussed sustainability at the moment, while Theme 3 - "Thinking About Sustainability" presented ideas participants had about sustainability in general.

An overarching theme that wove through every part of the research was group uniqueness, and this was presented first, providing context for the following themes.

Material is presented in a way that participants perspectives were interwoven with literature on CBNRM, which sometimes supported or contradicted participants ideas and experiences. This was to gain context and better understand sustainability in CBNRM, consistent with the triangulation method (see Chapter 3.3.3.1. Credibility Tools: Triangulation) and was not meant to invalidate participants experience. It also helped to form conclusions and recommendations to increase sustainability.

4.2. Group Uniqueness

Uniqueness was the overarching theme weaving through every aspect of the research, due to the essence of CBNRM. The centre of any CBNRM project is the community, and a community's interests, values and needs are complex, diverse and unique (Gooch & Warburton, 2009, p.160; Peters et al., 2015, p.180; Roka, 2019, p.11).

People were involved with groups for different reasons: "clear some traps and spin some yarns and have fun", compared to "someone has to step up and advocate, not be out in the mud doing the fun stuff". The community base was unique, which affected group membership, purpose and operations, "it's an old community…people have grown up for one or two generations with no birds". Unique project terrain also affected operations, volunteer engagement and funding: "terrain that is very inaccessible, so you need somebody who's fit, and got skills, like a contactor".

Gooch & Warburton (2009, p.166) stated "a strong sense of purpose linked to a strong sense of place" is an attribute of CBNRM that enhances adaptability. Uniqueness can be seen as a product of a group's place, and therefore needs to be acknowledged, maintained and encouraged. It means that when working towards sustainability, what works for one group may not work for another.

4.3. Theme One: Group Dynamics

4.3.1. Membership Diversity

All participants stated groups had limited age diversity, with aging volunteers. One participant likened groups to an "old people's home", which may inhibit recruitment of younger people. This may threaten group longevity, particularly in smaller groups (Peter et al., 2015, p.186). It also restricted activities and operations, especially on difficult terrain: "some of these hills are too steep for retired people". Including tangata whenua was seen to contribute to sustainability: "to be supported by tangata whenua, to have as diverse a group as possible".

Membership diversity improved volunteer coordination: "each volunteer coordinator manages the different dynamics within the volunteer workforce". Inclusivity and representing diverse stakeholders improve networking and engagement (Mountjoy, 2014, p.340; Roka, 2019, p.3). Larger groups could share workload, avoiding volunteer burnout (Roka, 2019, p.4), but were also more complex to manage, particularly when needing to consider an increased number of diverse views, and volunteer engagement: "it's pointless bringing a lot of people in if you don't have something for them to do so it's a catch-22 situation". Group size, diversity and expertise was influenced by the community base, which could affect project success (Gooch & Warburton, 2009, p.165)

4.3.2. Engaging and Recruiting Volunteers

Engaging and recruiting volunteers was unique to groups and required time, effort, innovative thinking. Successful engagement involved: "a giving and a taking, and a receiving. In terms of knowledge…networking…the enjoyment and food". Regular gatherings ensured volunteers were not isolated, and recruiting volunteers was a sustainability issue. Mechanisms to connect people to a project were useful: "when you plant a tree…that is part of your place….and they think wow I've really contributed to something". Mechanisms included "headhunting and talking to people". Recruiting younger people was a serious

sustainability issue, particularly concerning succession. Providing opportunities for "casual" volunteering, like one-off planting days, could offer ways for youth and family involvement, without ongoing commitments to better suit their needs (Peters et al, 2015, p.182).

4.3.3. Group Governance

Groups were structured differently, with advantages for both large or small governing bodies. Small groups of trustees could remain "tightly focused", while larger, more diverse committees shared workload but also dealt with increased 'politics', less productivity and inability to make decision during meetings: "we couldn't come to a decision on anything, too many people with different ideas, some with very little knowledge, all wanting to have an opinion". Improving communication and conflict management could encourage effectiveness in governing bodies.

4.3.4. Communication

Creating group culture where people can raise issues improves problem solving, and good communication skills create group effectiveness by building relationships, trust, commitment and respect (Gooch & Warburton, 2009, p.162; Gruber, 2010, p.56; Mountjoy, 2013, p.1551; Mountjoy, 2014, p.342; Roka, 2019, p.4). Despite this no participants mentioned communication skills within groups, suggesting a lack of awareness of the importance of effective communication for group success. Communication is particularly important when including diverse stakeholders and building community bridges (Gooch & Warburton, 2009, p.162; Mountjoy, 2014, p.340).

Communication pathways were important to establish, especially relating to succession, so that "a lot of the gains would be maintained because you know what's involved, you know what's out there, you know what volunteers are around and you know what the idea of the trust is", but that "a lot of places aren't actually doing that". Participants noted they did not have regular planned discussion, but rather casual conversations, stating "it just happened". When discussions were happening, groups didn't always know the next step, "we talked about it, we just don't know a way forward".

Conflict resolution was not mentioned by participants, and it appeared groups avoided conflict by reducing group size and not including stakeholders with diverse views (see 4.1.4. Governance). Resolving conflict is a key characteristic of effective CBNRM (Gruber, 2010, p.62; Roka, 2019, p.3). Good communication helps groups respond to change, improving adaptability, creates rapid strategy development, and social learning, and enhances marketing and funding access (Gooch & Warburton, 2009, p.162; Gruber, 2010, p.56; Mountjoy, 2013, p.1557).

4.3.5. Leadership

Strong leadership qualities were defined as: "kind, and you've got to be able to get on with people, and you've got to maintain professional relationships with different organisations". Stepping into leadership roles does not have to be daunting, if we remember that "we're all different and we all have our strengths and weaknesses". Being clear on leadership qualities was important because leaders are "often very strong personalities, and that kind of determines the group to an extent". Poor leadership can undermine group function, structure and purpose, and lead to high volunteer turnover (Gooch & Warburton, 2009, p.165).

Strong, visionary, yet adaptable, leadership is one of the most important elements of effective CBNRM, and requires strategic thinking, experience and informed decision-making (Mountjoy, 2013, p.1551). Motivation was instrumental, "motivation motivates people". Leadership, motivation and vision are linked and create adaptive groups that cope with change, try new options, reject things that don't work and focus on process instead of static structures (Gruber, 2010, p.57; Mountjoy, 2013, p.1558).

4.3.6. Succession

Leadership succession planning was a key sustainability issue (Boykins, 2019, p.1; Elkin et al., 2012, p.35; Santora et al., 2015, p.68; Eastman, 2018, p.5), and appeared in every conversation, particularly concerning aging members and difficulty recruiting younger members: "if those key people step away, I suppose that's where you maybe think things are going to go in a different direction or stop all together". Succession was discussed in groups, but members did not necessarily know what to do about it. Succession was considered easier

with larger groups, however, having confidence to step into leadership role, and capacity in leadership in conservation in Southland were a barrier.

Two participants talked about a succession "plan", which comprised of a conversation with a younger group member who "seemed as if he would" take on the role. Another group had a mentoring style plan, where a member was working alongside a leader towards succession, with one of the participants stating, "I'm a bit structured and I like to think about things before-hand", indicating a planning mindset and succession may be linked. Succession planning is a proactive, strategic approach to leadership development (Eastman, 2019, p.5, Bozer et al., 2015, p.3).

Knowledge transfer is an important element of succession planning to develop and retain institutional knowledge (Boykins, 2019; Eastman, 2018, p.8; Elkin et al, 2012, p.37). Collecting and recording knowledge and data was vital so the next person didn't have to "start from zero".

A strategic approach to leadership succession may include identifying, pursuing and fostering capable individuals (Mountjoy, 2013, p.1558), particularly as effective leaders are a primary aspect of group resilience (Gooch & Warburton, 2009, p.165; Gruber, 2010, p.57). One participant stated: "succession planning, it doesn't guarantee that it continues exactly like that, because every leader is going to be different. But at least it makes sure that it kind of continues in the same direction maybe and the gains aren't completely lost".

4.3.7. Knowledge and Data

Recording knowledge and data was important for many reasons, including teaching new members, retaining local knowledge, succession, and as evidence for funders. Statistics were considered influential: "it's really powerful that stuff…keeping records of all that stuff and the monitoring", and helped to engage people as a celebratory tool "numbers are a real celebratory thing…it shows people turning up they're all adding to the bigger picture".

4.3.8. Skills

Skill limitations hindered group effectiveness. Skill and expertise availability varied due to the unique volunteer base. Limitations were noted around technology, governance,

administration and communication. Running volunteer groups is becoming more complex: "the administration management type things are getting more like you're running a business", and participants noted they are "digitally ignorant". Diversity in skills improved CBNRM effectiveness (Gooch & Warburton, 2009, p.164).

4.3.9. Funding

Money affected sustainability, particularly if groups were very reliant on funding, and extreme events like Covid occur: "we don't need a massive amount of money to run the group, but other groups who have a paid position and suddenly that's stopped because funding has ceased, how do they then pick it up again?". Mapping out a diversity of options, around project tools, trapping networks and funding, may help groups cope during funding shortages. One participant noted they felt "we're just treading water", when thinking about their group.

CBNRM will always require a certain amount of funding (Peters et al, 2015, p.187), of which participants were aware: "for the funding organisations when they say that you're going to be self-sustaining in 3 or 5 or whatever years, I haven't encountered that in 20 years…they don't want to hear that". Without on-going funding, enthusiasm and decision-making suffer, and resilience is eroded, and realistically, short-term funding does not support long-term ecological restoration (Gooch & Warburton, 2009, p.164).

4.4. Theme Two: Beyond the Group

4.4.1. Connecting the Project

Community engagement had many benefits, compared to working in isolation. A wide support network helped groups cope through change, even if community members did not necessarily actively volunteer, but would support or promote the group: "got those (people) that may not work actively for the trust, but they advocate for us, and they see that we're doing", and "everyone in our community sees the trapping network as an extension of them now, it's their project…if it all turned to custard…there's somebody to back it up".

Communication and engagement mechanisms helped to create that network, and groups needed to actively gain trust, legitimacy and respect from the community. One participant felt their community: "value our trust because they see the benefit in their backyards and in their community, where there's birds there and a healthy forest". Gaining support may require innovative thinking, relationship building, engaging non-represented stakeholders, and a tailored communication strategy (Mountjoy, 2013, p.1551).

Connecting people to the project required unique mechanisms, "My hope is that people who have planted a plant have a connection. That kids who have planted a plant 5 years ago and take their own families back there and say we helped with this. And that's definitely a sustainable ongoing thing", and personal engagement, "done guided walks dozens and dozens over the years…and they hear you talk about the passion, for it, and they see the stats, it's just a combination". Barriers to community engagement were time and energy, and lack of community and stakeholder willingness to engage "we've tried, and nobody responded".

4.4.2. Communication and Visibility

Connecting a project required visibility, and a communication strategy unique to communities (Mountjoy, 2013, p.1551). This means groups were "constantly visible and talking about what you're doing and showcasing it". One participant stated listening to their community was important: "tell us more about what you do…you just don't tell us enough".

Working in isolation was a sustainability issue, "if they were to get vandalised or they were to disappear overnight, nobody would even know". However, communication was severely limited by time and skill limitations: "there's a big gap with groups telling their stories, because they're too busy doing it to tell the story".

4.4.3. Education and Capacity Building

Education, awareness and building capacity to complete conservation work was a sustainability factor that participants seemed to accept was part of groups roles, "it's the education, particularly of children, that's the key to everything being sustained in the future".

Creating education pathways, job opportunities, and engaging kids in conservation to build capacity was vital, particularly with Predator 2050 goals, "if you look at predator free in general, it's not going to be me and you who are going to be finishing that, it's going to be the kids coming out of school". However, a major challenge was funding, resulting in groups taking on the responsibility: "we've come up against brick walls, where everybody says that, but nobody is funding it, like educators at ES, and DOC doesn't have any educators anymore". Creating public awareness for restoring natural ecosystems and groups projects was important: "we've made it quite obvious and quite clear to the community that this is a forever project because we cannot stop, if we stop everything goes back and all the birds will die".

4.5. Theme Three: Ideas on Sustainability

4.5.1. What is Sustainability?

All participants agreed groups needed to be sustainable indefinitely, due to the nature of the pest problem in NZ: "I can't see any end to it, like there's always going to be rats", and "you will always need pest control, certain things will always need to be done".

Interview dialogue led to questions on "What is Sustainable?". One participant noted: "Would you think a group that's lasted 20 years was good? Or not? Or is it to last forever? Is that what you mean by sustainability? Or is 5 years good? With no interference? And that's what funders want and its impossible in my opinion".

Sustainability was often linked to funding and capacity: "to sustain what we're doing, you need money…really you have to have the people as well". Education, awareness and advancing the conservation movement were sometimes considered more important to sustain, rather than a group itself, "we don't necessarily think it's physically the building or even the organisation, its more the education of other groups to take over those roles". Some participants struggled to think beyond their present circumstance: "we just don't know a way forward. So, if somebody could guide people on how you could move forward with that it would be useful".

To manage sustainability, it helps to understand how it is lost or gained and pinpoint parts where it can be enhanced. Discussing "sustainability of what?", and mapping out alternative pathways, may help groups to think and act more strategically (Gooch & Warburton, 2009, p.159).

4.5.2. Thinking and Acting Strategically

Strategic thinking and visionary, adaptive leadership are vital for CBNRM success and effectiveness (Mountjoy, 2013, p.1551). Some participants stated groups operated strategically from the beginning: "from the start, we're cutting all these lines into the forest, were putting this infrastructure in, what happens if it fell over? So, there's always been the question of how do we stay sustainable", while other groups operate in a day to day fashion. This will be affected by uniqueness, and some groups benefited from members who naturally think strategically.

4.5.3. Strategic Planning

Strategic planning is a deliberate approach to decision-making and a tool that improves "strategic thinking, acting and learning", which guides and shapes organisations (Bryson, 2015, p515). It is a component of success in CBNRM (Gruber, 2010; Mountjoy, 2013, p.1558). Planning ahead was considered useful: "for all of us it's important to know just how we're going to look in 10 years' time, some strategic planning would be great", but may also challenge why groups first started "most people get involved in these groups because they want to get out and do stuff. Not because they want to sit in an office, and think about, you know, planning it like a business". Participants noted strategic documents guide groups and help to access funding. Most groups did not have a strategic plan: "they've got to see that you have this deed and strategy and that you're adhering to it…otherwise your credibility goes out the door, and no one will give you money if you're not following your deed".

Strategic planning is a participatory, individualised process, and for communities has an action-orientated, holistic focus (Bryson, 2015, p.516). What groups incorporate in a plan will reflect their uniqueness "provide advice and provide a list of what should be considered possibly to help with sustainability, but it would then be an individual handpick from that for what would work for that group in their environment for what they want to do."

4.5.4. Diversity

Having a diversity of options encouraged sustainability: "if we put all our eggs in one basket and it goes pear shaped, if you've got resilience and you get lots of threats to whatever you do then you're more likely to survive". Developing diversity and creating opportunities are key components of adaptive capacity (the ability to respond and adapt to change) and encourages reorganisation and renewal (Armitage, 2005, p.706). Planning alternative options enabled work to carry on during crises like Covid "there's no guarantee to that funding continuing, and we're seeing it now with Covid…have that business mindset…how can we diversify and change things to maintain the network if we don't get paid?". Diversity can be implemented across many aspects of groups, including funding and trap network options, membership, skills and stakeholder representatives. Organisational and institutional diversity result in learning organisations better able to cope with external change (Gruber, 2010, p.62).

4.5.5. Partnership

Working in partnership with agencies and organisations could form part of groups wider support networks. Partnership was viewed "just like a marriage, someone's got your back", and required trust, support, engagement and communication from both sides, "you have to put in the effort if you want to engage properly". Although CBNRM groups are in the best position to manage local resources (Peters et al, 2015), local government still have obligations and responsibilities to support and navigate issues, particularly when volunteer groups are working on public land. Willingness and ability to form partnerships is a mechanism of transformability: the capacity of groups to create opportunities and re-organise (Gooch & Warburton, 2009, p.162).

4.5.6. Support

Poor communication and inadequate funding and support leads groups to feel undervalued and unsupported (Gooch & Warburton, 2009, p.161). Participants had different ideas about levels of support offered by agencies in Southland. One participant stated the regional council had supported a group to develop a strategic plan, which had facilitated sustainability

and identifying issues. Most participants thought that more support by agencies to build skills and capacity would be useful: "support from agencies giving groups support in doing those sorts of documents possibly might be good… a guiding document to guide what you're going to do in the future". However, participants generally felt unsupported and unheard, leading to lack of trust, and working in isolation: "get the same old story, underfunded…they've more or less just passed it over volunteer groups,", and "we're doing a lot of running around and we don't always get acknowledged. Sometimes it's not money that you need, you just need encouragement". It was important groups did not feel inadequate when offering support, but rather "giving some ideas and offer help and advice…but if they use it in the end is up to them", and different groups could require support in different areas (Gooch & Warburton, 2009, p.168). Agencies need to develop new ways of supporting, facilitating and engaging the diverse number of community groups in NZ (Peters et al. 2015, p.187) and assist with community capacity building (Gooch & Warburton, 2009, p.168).

4.5.7. Partnership with Iwi

Resource management groups are required to consult and include local iwi (tribe) under the Resource Management Act (1991) and the Treaty of Waitangi, when working on public lands (Harmsworth, 2005).

Most participants stated they had a working relationship with their local runanga (tribal council), while also stating it could be improved upon: "we don't have an ongoing dialogue…we've been trying to a limited extent, but I wouldn't say that's a strength of ours. And certainly, on our committees we don't have (tangata whenua), we could do better". Participants stated partnership meant "to engage and include and collaborate with the local iwi" and ensuring "Ngai Tahu come along on that journey". Iwi partnership was considered beneficial, and participants wanted to create stronger links between groups and runanga, however, capacity in both was a barrier.

4.5.8. Collaboration

Collaborating with other CBNRM groups in the region was considered beneficial, through sharing, learning, and building wider support networks. This was considered advantageous

when doing conservation across larger landscapes to connect projects: "I am hoping we can all work closer together, because we are all working in isolation, and to start trying to control in between these areas then there's going to be a lot of cross boundary working together.". Collaboration increases support within communities and between groups (Mountjoy, 2014, p.341).

Collaboration is not a top-down approach, and judging each other, rather "helping each other along", providing "power in numbers," and "collective voice". Participants believed collaboration to increase impact when applying for funding or support, and Roka (2019, p.4) stated collaboration builds social capital, learning opportunities, supports implementation and leverages resources.

Participants noted that people in conservation in Southland often "wear many hats", and usually belonged to multiple groups, meaning "cross-fertilisation", or sharing of ideas, is already happening**: "**it's a small population in Southland, we're all on different groups, and we all bring some strengths from one group to another". Sharing ideas and collaborative partnerships is a critical aspect of adaptive management and social learning (Gooch and Warburton, 2009, p.162).

Barriers to collaboration were time, money, physical distance between groups, and trust and perceived competition between groups, related to funding, "Covid came and now there is competition because there is so little money around…I think people will have that worry, seeing each other as competition". Many groups have worked in isolation for a long time and may not be used to working together. Support to develop collaboration, conflict management, and communication skills may alleviate this. Collaboration requires creating shared space while not detracting from another groups uniqueness.

4.6.   Interconnectedness of Factors

It is apparent that one unique factor is linked to and will influence another. For example, group diversity is affected by the community, while diversity affects recruitment due to inclusivity and relatability. This may impact group size, affecting skill, expertise, succession and sharing workload. Group size and communication impacts functioning and governance, in turn impacting problem-solving, group culture, and conflict resolution, and issues such as

succession and leadership development. Leadership is linked to adaptability, motivation, and maintaining vision. Community and volunteer engagement is linked to innovative thinking, group culture and willingness to try new things and reject what doesn't work.

These linkages are important as changing one area will influence another, when working towards sustainability.

4.7. Conclusion

Participants discussed sustainability in CBNRM groups they were involved in, resulting in three emerging themes, and one overarching theme of uniqueness. These sustainability factors were shaped into a set of outcomes, and recommendations, presented in the conclusion chapter.

CHAPTER 5: CONCLUSION

5.1. Introduction

Perspectives on sustainability were gathered from conversations with locals, who were involved in CBNRM groups in Southland, NZ, with an emphasis on personal experience. The data from participants was used in an emergent process to uncover themes. Sustainability was stated as "being able to carry on into the future". Three themes emerged: Theme 1 - "Group Dynamics", or the nature of groups, and Theme 2 - "Beyond the Group", or how the group connected to its community. Themes 1 and 2 presented what was and wasn't sustainable in groups at the moment, while Theme 3 - "Thinking About Sustainability", presented ideas about creating sustainability in general.

5.2. Uniqueness

Uniqueness wove through every facet of the research, making every participants' perspectives of groups and sustainability unique. Due to the nature of CBNRM, every group was also a unique entity.

Each group's community base and project terrain was different. This affected group dynamics, including: membership diversity, purpose, governance, leadership, succession, volunteer engagement, recruitment, expertise, knowledge, communication, technical, operational and administration skills, stakeholder and agency engagement. Project terrain presented challenges and opportunities that influenced group activities and volunteer engagement. Uniqueness could affect access to funding and support, and community engagement, and ability to connect projects beyond the group.

Uniqueness is what made a group in the first place and was important to keep in mind when looking at sustainability in groups.

5.3. Outcomes

Uniqueness resulted in unique factors that inhibited or created sustainability. Therefore, working towards sustainability requires an individualised approach, because what works for one group may not work for another. The research presented some key sustainability factors that groups could apply in individualised means, including:

- Thinking ahead and planning strategically.
- Connecting the project and group positively with the wider community
- Creating mechanisms to engage and recruit volunteers, and promote casual volunteering
- Creating a wide support network to avoid isolation and surviving crises
- Education, awareness and building capacity in environmental work.
- Well-functioning governance structures and promoting positive group culture
- Self-reflection on what works and doesn't work and asking for help
- Active skill building particularly relating to running groups: administration, management, governance, collaboration, communication, conflict management, marketing, leadership, succession, and strategic planning.
- Having a diversity of options across groups
- Partnership with stakeholders, agencies, community groups, and iwi.
- Collaborating, sharing and learning with other groups

Strategic, or resilience planning, is a framework that could be used by groups in an individualised way to maintain uniqueness.

5.4. Recommendations

If the NZ government requires communities to manage resources locally, primarily as volunteers, then groups will require support to develop attributes and skills to maintain group longevity and effectiveness, and plan for resilience. As one participant noted, "it is more and

more like running a business", in your spare time. Every group may choose something different they require support with.   A recommendation is to return to groups, reflect together on research outcomes, and ask what they require support with. Further research could include clarifying the needs of groups working in different areas of the region, particularly rural versus urban.

Developing and testing tools to enhance strategic thinking and resilience planning could be useful for current and future groups. Setting up and supporting collaboration with other groups is also recommended to spread knowledge and create dialogue.

A better working partnership, with agencies and stakeholders, including iwi, needs development and encouragement, so groups feel supported and acknowledged, and will require two-way participation.   It is clear that groups will likely never be independent of funding and support, and it is imperative that any support acknowledges and encourages group and community uniqueness, to sustain the inherent essence of CBNRM.

5.5.   Reflective Account

Learning to conduct social research was challenging and rewarding. I struggled with not allowing my own ideas to override the findings and needed encouraged to take a much wider view, and allow the research to go where it wanted to, instead of narrowing it down. This required a degree of surrender where the research took on a life of its own and I was merely a tool. The amount of resulting material, ideas, concepts, feelings and themes were at times overwhelming, although I enjoyed the process of attempting to shape it into something useful. Regular chats with my supervisor helped develop my awareness practise and brought me back on track as I navigated the world of social research.

The most interesting features that stood out was the uniqueness that made itself so apparent in every aspect, the issue of succession, the increasing complexity of administering groups and the subsequent impact on volunteers, and the necessity of funding as an ongoing requirement to sustain CBNRM.

5.6. Conclusion

CBNRM is important to manage resources as sustainably as possible and provide social and economic benefits for communities. Locals are passionate, knowledgeable, and willing to go extra lengths to do environmental work in their backyard. However, they require funding, support, and genuine partnership to cultivate sustainability in their groups, to increase longevity, impact and successful conservation outcomes.

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