

Adapting Together: Exploring the Relationship between Social Capital and Planned Relocation
as a Disaster Risk Reduction Measure

by

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COMMITTEE APPROVAL

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Abstract

This integrative literature review explores the relationship between social capital and planned relocation as a disaster risk reduction measure. This is done by using qualitative data analysis methods to examine literature on relocation through the lens of an existing framework for the measurement of social capital, which can be understood as human relationships and their associated benefits. Following this, implicative logic is used to form a series of recommendations for preserving or increasing social capital in the context of relocation. Finally, a framework for applying the findings from this research in a real-world context is developed and proposed.

Dedication

First and foremost, I would like to thank Dr. Tara McGee, who took a chance and agreed to mentor me and supervise this project after only a few email exchanges. You have been an absolute pleasure to work with, and your extensive knowledge and experience as they pertain to the human dimensions of disasters have been monumental to this project. I would also like to thank Dr. Jean Slick for agreeing to be part of my committee and playing a key role in helping me shape what would become this thesis. Your first-hand experiences working with vulnerable populations displaced by disasters are an inspiration, and I am grateful that your perspectives are included in this work. To my employers at Public Safety Canada's Government Operations Centre, thank you for your support, trust, and flexibility over the last few years. To Perron Goodyear, Carla Hanson, Donna Coleman, and Kerrie Green – my fellow thesis-writing RRU colleagues, I cannot overstate how grateful I am that we have kept in touch throughout this process. Your support and friendship have been of immeasurable importance, and I hope that we remain friends for the long-term. To those who saw potential in me long before I could – you know who you are – thank you. To my partner, family, and friends, thank you for your patience, understanding, and continued encouragement as I participated less actively in our relationships while pursuing this M.A. and working full-time. Finally, I would like to acknowledge my dog, Kujo, who unfortunately passed away as I was writing the final pages of this thesis. You were my best friend for close to nine years, and thanks to you there is no doubt in my mind that social capital can extend beyond human-to-human relationships. Rest in peace!

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Chapter 1: Introduction

Human mobility as an adaptation strategy is by no means a new concept. In fact, it has been argued that some of the earliest human migrations out of Africa, which occurred over 100,000 years ago, were motivated by climate change (Carto et al., 2009; Castañeda et al., 2009; Scholz et al., 2007; Timmerman & Friedrich, 2016). As human life on earth has become more complex, however, so have the considerations surrounding relocation. For instance, in addition to potential issues surrounding matters such as borders, laws, property ownership, tribalism, and diplomatic relations, it has been widely demonstrated that beyond its intended benefits with regards to disaster risk reduction, relocation can also result in an array of negative psychosocial outcomes. To provide a few examples of these outcomes, previous relocation projects have been associated with social disarticulation, loss of livelihoods, lower levels of psychological well-being, and increased vulnerability (Abe & Shaw, 2014; Dannenburg et al., 2019; Ha'apio et al., 2018). Though it would not be incorrect to attribute these negative psychosocial outcomes to the inherent nature of this type of relocation – which most often arises in situations where individuals are forced away from their traditional lands, culture, and livelihoods (Bertana, 2019; Connell & Coelho, 2018; Maldonado et al., 2013; McLean, 1999), this would only partially illustrate the issue. In fact, it has also been widely demonstrated that several other factors, such as the pre-existing psychosocial health of communities and the extent to which community members are empowered to participate in their relocation play a significant influence on psychosocial outcomes following relocation (Correa & Gonzales, 2000; Lin & Lin, 2020; Yang, 2014).

Background

Acknowledging that a better understanding of the psychosocial impacts of relocation is primordial in maximizing the potential for positive outcomes following relocation, this project sought to better understand the relationship between relocation as a disaster risk reduction measure and social capital, which has been demonstrated to be a key contributor to the psychosocial health of communities (Helliwell et al., 2013; Woolcock, 2001; Yip et al., 2007). This was done by conducting an integrative review of literature that pertains to planned, permanent, whole-of-community relocation through the lens of an existing framework for the measurement of social capital, followed by an exploratory discussion on how social capital could potentially be preserved or increased in the context of relocation. The relevance and timeliness of this research can be highlighted by the fact that in the context of the ongoing climate crisis, it has been estimated that by 2050, anywhere between 25 million and one billion individuals worldwide will need to relocate, with the most commonly cited estimate being 200 million (International Organization for Migration, 2009). Furthermore, and as soon to be demonstrated throughout this work, the use of the word *worldwide* in the previous sentence goes beyond mere rhetoric. The literature reviewed herein pertains to relocation projects that have already taken place, and span from Fiji, the United States, Papua New Guinea, Colombia, Japan, Mongolia, and India, to name a few.

From a personal perspective, the motivation behind pursuing this research comes from my first-hand experience working with a Canadian First Nation during several flood-related evacuations between 2013 and 2018. The original intent of this research was to develop recommendations specific to this community, which is now actively planning for their relocation to a site where risk of flooding is significantly lower. Though for several reasons the community

was unable to participate in this project, it remains my intention to offer its recommendations to the community's leadership. Further to this, given that remote and indigenous communities are more likely to be impacted by natural hazards and the impacts of climate change (Galloway McLean, 2010; Green & Minchin, 2014; Norton-Smith et al., 2016), it is also my hope that these recommendations will be useful for similar communities as relocation is set to become a more common reality.

Paper Outline

Literature Review, Methodology, and Methods

Following this introduction, the literature review chapter elaborates on what is known about the key concepts relevant to this research in order to outline the theoretical and conceptual frameworks on which the basis of this work was formed. The concepts explored in this chapter revolve around social capital and complexity theories, different methods and approaches for measuring social capital, and the various types of community relocation associated to disaster risk reduction. Next, the research design chapter outlines the approach used to answer the two research questions associated with this project, which are:

- 1) *What is the relationship between planned relocation as a disaster risk reduction measure and social capital?; and*
- 2) *How can social capital be preserved or increased in the context of relocation?*

This chapter includes information on the worldview from which this research was approached, the methodology and methods used to answer the research questions, as well as information on the validity, reliability, and limitations of this research.

Findings, Discussion, and Recommendations

The fourth chapter of this thesis addresses the first research question by outlining the findings from a qualitative review of literature on relocation through the lens of an existing framework for the measurement of social capital. These findings are then used in chapter five, which aims to provide an answer to how social capital can be preserved or increased in the context of relocation by providing a series of recommendations geared towards addressing existing issues and leveraging best practices identified from previous relocation projects in chapter four. Lastly, the discussion and recommendations chapter features a discussion on my interpretation of the findings, the importance of applying them in practical contexts, and a proposed approach for taking social capital into consideration during future relocation projects.

Finally, recommendations for future research are offered. These recommendations fall under three broad categories, which can be understood as research meant to challenge and further specify the conclusions reached through this project, research geared towards painting a more holistic picture of the psychosocial impacts of relocation, and research that focuses on identifying areas of overlap between different fields that address the issue of psychosocial outcomes in the context of relocation.

Chapter 2: Literature Review

The purpose of this chapter is to provide context by exploring the primary themes that formed the basis of this research. First, the theoretical framework section discusses social capital, as well as complexity theories. Second, the conceptual framework section compares different frameworks for the measurement of social capital in order to identify the most appropriate approach for exploring the relationship between relocation and social capital in the context of this research. Lastly, different types of community relocations are outlined to demonstrate how research and article selection parameters were informed.

Theoretical Framework

This research was rooted in social capital as well as complexity theory. This section outlines what is currently understood about social capital, provides background information on complexity theory and more specifically complex adaptive systems, and explains why they are relevant to each other in this context. This information was also used to establish a general line of thinking from which this research can be understood, and as a basis for developing the methodologies and methods used for answering the research questions associated with this project.

Social Capital

Robinson et al. (2002) defined social capital as “a person’s or group’s sympathy toward another person or group that may produce a potential benefit, advantage, and preferential treatment for another person or group of persons beyond that expected in an exchange relationship” (p. 6). Similarly, Fukuyama (2000) defined social capital as “an instantiated informal norm that promotes cooperation between two or more individuals” (p.3). Furthermore, social capital is often subdivided into bonding, bridging, and linking social capital, where

bonding social capital “connects similar individuals, ... bridging social capital connects across caste and identity, [and] linking social capital ... allows normal citizens access to power brokers, authority figures, and decision makers” (Aldrich, 2017, p.359). Though there are variations in the understanding and definitions of social capital, they are typically centered around two primary aspects: human relationships and the benefits resulting from them. For the purpose of this research, this is how social capital was generally understood.

Perhaps of more importance than the minor differences in the definitions and understanding of social capital is its broad influence at a societal level. Starting with the obvious, social capital has been associated with higher levels of psychological well-being and happiness in virtually every context it was studied (Helliwell et al., 2013; Woolcock, 2001; Yip et al., 2007). As argued by Helliwell et al. (2013), this can be at least partly attributed to the fact that “the social fabric of a community or nation affects its capacity to deal with crises and to develop human and natural resources in ways that maintain and sustainably improve subjective well-being” (p.145). Further to this, social capital has also been demonstrated to play a positive role on sustainable economic development (Fukuyama, 2000, 2001; Woolcock, 2001), resilience (Aldrich, 2017; Aldrich & Meyer, 2015; Cai, 2017; Meyer, 2018; Murphy, 2007), and political outcomes (Fukuyama, 2001; Woolcock, 2001).

McKenzie et al. (2002) stated that “social capital has been characterized as the glue that holds societies together” (p.280). Further to this, Woolcock (2001) observed that “the well-connected are more likely to be hired, housed, healthy, and happy” (p.68). Given the obvious importance of social capital as a contributor to the psychosocial well-being of communities, and the potential negative psychosocial impacts of relocation, it becomes easy to theorize that

achieving a better understanding of the relationship between relocation and social capital will set the stage for maximizing the potential for positive outcomes following relocation.

Complexity Theory

Some researchers, such as Fukuyama (2000) and Stone (2001), criticized existing conceptualizations of social capital for using its outcomes in its definition. But where does the relationship between social capital and its outcomes begin and end? On the one hand, individuals who are happy, have strong relationships, and enjoy a certain level of political empowerment will have more capacity to contribute to the social relationships and sense of support and altruism that make up social capital. On the other hand, the absence of social relationships and ability to benefit from them will make it difficult to be happy, connected, and empowered. In addition to this, the complexity of the relationships between these factors, how they impact each other, and how the balance between them might impact social capital overall are just a few of the seemingly endless considerations and potential scenarios surrounding this issue.

Based on this, I chose to view the problem from the perspective of complexity theory, which “addresses fundamental questions on the nature of systems and their changes” (Walby, 2007, p.449). More specifically, complexity theory can be viewed as the study of *complex adaptive systems*, which are systems composed of dynamically interacting elements and which display behaviour that is contingent on the interaction between these elements. From a complexity framework, this pattern of behaviour is known as *emergence* (Amagoh, 2008; Cilliers, 2000; MacLean & MacIntosh, 2003; Walby, 2007). To reiterate, this means that “patterns emerge which are due to the collective behavior of the components of the system” (Amagoh, 2008, p.8).

Another important characteristic of complex adaptive systems is *non-linearity*, which essentially acknowledges that in complex adaptive systems, the relationship between cause and effect is not proportional (Amagoh, 2008; Walby, 2007). As contended MacLean and MacIntosh (2003) “non-linearity means that ... patterns cannot be understood in terms of simple sums or differences of interactions between the elements but arise out of the interconnectivity of the system” (p.153). Though non-linearity foreshadows the reality that the complexity of the interactions between a system’s various elements can make its behaviour challenging to predict, it is important to note that complexity does not equate to randomness; even though often far from straightforward or obvious, behaviour exhibited by complex adaptive systems is causal in nature (Goldstein, 2000; Introna, 2003; Walby, 2007). Therefore, and as argued by MacLean and MacIntosh (2003), there is potential for creating *conditioned emergence* by developing an in-depth understanding of a system and its properties, introducing change, and influencing outcomes as the system reorganizes itself.

For the purpose of this research, I took the position that social capital is in fact an emergent property of a complex adaptive system. The primary motivation behind this is to recognize the extensive interconnectedness between social capital and its components and the potentially unpredictable challenges associated with community relocation and its impacts on social capital. Further to this, it highlights the importance of approaching the problem from a holistic perspective, and the requirement for long-term investments in this regard if aiming to promote positive social capital and broader psychosocial outcomes in general in the context of relocation.

Conceptual Framework

Informed by the theoretical framework outlined above, this study relied upon the following assumption: in the absence of a significant body of literature specific to the relationship between relocation and social capital itself, exploring the relationship between relocation and various outcomes or components of social capital can provide an indication of how social capital can be impacted by relocation and vice versa. As such, the general concept employed for this research was the following: starting with a pre-existing framework for the measurement of social capital, literature on relocation was reviewed in order to determine how various components of social capital – and therefore social capital itself, can be impacted by relocation and vice versa. Following this, the findings from the literature review served as a basis for developing recommendations on how social capital can potentially be preserved or increased during future relocation projects.

The purpose of this section is twofold. First, it explores existing frameworks for the measurement of social capital in order to identify the one most appropriate for conducting this research. Next, it investigates different types of relocation as a disaster risk reduction measure in order to further inform research and article selection parameters.

Measuring Social Capital

There are many approaches to measuring social capital. And as the concept and definition of social capital continues to evolve, so too does the level of similarity between these various approaches. For instance, Fukuyama (2000) spoke of two broad approaches for measuring social capital. The first is to examine group memberships in a society, and the second pertains to looking at levels of trust and civic engagement. Grootaert (2002) used a combination of both, and measured social capital using memberships in local associations and networks, indicators of

trust and adherence to norms, and indicators of collective action. Further highlighting the similarities between methods, Narayan and Cassidy (2000) examined five approaches to measuring social capital and found that trust and group membership were present in all five, while connections, reciprocity, and political engagement were found in three or more of the examined approaches. Similarly, Stone (2001) talked about social relations, trust, and reciprocity, and van Deth (2002) spoke of networks, trust, norms, and values.

Grootaert et al. (2004) acknowledged that social capital is multidimensional and “most frequently defined in terms of the groups, networks, norms, and trust that people have available to them for productive purposes” (p.3). Based on this, they developed the *Integrated Questionnaire for the Measurement of Social Capital (SC-IQ)*, which measures social capital through the lens of the following six dimensions: groups and networks; trust and solidarity; collective action and cooperation; information and communication; social cohesion and inclusion; and empowerment and political action. Given that the SC-IQ encompasses all of the themes found in the other examined methodologies and that it has been used successfully in a variety of contexts (Grootaert et al., 2004), this methodology was used as the baseline for examining the selected literature.

Community Relocation

There are many forms of relocation associated with disaster risk reduction. As explained by Warner et al. (2013), human displacement can be temporary or permanent, local or non-local, forced or voluntary, and can be conducted in organized and non-organized manners. To name a few additional variations, relocation can also occur as whole-of-community, partial (where only a portion of a community is relocated), independent (where a community relocates as a single unit to new, uninhabited land) or dependent (where a community moves to an existing host

community). Many of these categories could then be merged and further subdivided, highlighting the fact that relocation is a complex issue requiring complex solutions specific to the scenario at hand.

This research project sought to explore the relationship between planned, permanent, whole-of-community relocation as a disaster risk reduction measure and social capital. Though information on communities relocating to host communities or communities being partially relocated was considered, the primary focus was placed on communities relocating as a single unit to new, uninhabited land. The motivation behind focusing on this type of relocation relied upon the fact that these findings are most applicable to remote and/or Indigenous communities, which are disproportionately impacted by natural hazards and the impacts of climate change (Galloway McLean, 2010; Green & Minchin, 2014; Norton-Smith et al., 2016).

Chapter 3: Research Design

Worldview

Creswell and Creswell (2018) contended that philosophical worldviews play a primordial role in determining whether researchers use quantitative, qualitative, or mixed methods approaches to their research. For instance, those who hold a postpositivist worldview see the world in a very linear, cause-and-effect fashion and tend to use quantitative methods (Creswell & Creswell, 2018). On the other hand, those who hold a constructivist worldview perceive truth as something that is relative and contingent on perspective, and tend to use qualitative methods (Baxter & Jack, 2008).

Beyond the classic and somewhat polarizing ‘quantitative versus qualitative’ dilemma, other worldviews place the focus elsewhere. Namely, those who hold a pragmatic worldview do not strictly adhere to a particular worldview or philosophy, but instead use whatever makes the most sense for addressing their research problem. Therefore, pragmatists can use quantitative, qualitative, or mixed methods, depending on the approach best suited to solve the problem at hand (Creswell & Creswell, 2018). Furthermore, those who hold a transformative worldview argue that research – especially research relevant to traditionally marginalized groups, should have a social or political agenda instead of focusing on “critiques that are chiefly concerned with deconstructing the present and the past without offering forward-looking, radical solutions to the problems and challenges we face” (Stetsenko, 2018, p.727). This is echoed by Bradbury Huang (2010), who argued that theory that is not put into practice is nothing short of speculation. Given that this research concerns an issue of growing relevance with global-political implications likely to disproportionately impact traditionally marginalized populations such as Indigenous

communities, and that I am hoping its findings will contribute to achieving more positive outcomes following relocation, this work was conducted using a transformative paradigm.

Methodology

Though the SC-IQ uses quantitative methods to measure social capital, there is no literature available on its use to measure social capital in communities prior to and following relocation. Given that identifying communities to be relocated and quantitatively measuring social capital in the context of their relocation was not feasible within the confines of this project, a more exploratory approach needed to be used for identifying ways in which social capital can be impacted by relocation and vice versa. For this, reviewing the extensive body of literature that pertains to relocation in general proved useful for identifying the broader psychosocial impacts of relocation, with the intention of further refining them into social capital impacts.

As argued by Snyder (2019), there are three broad approaches to conducting literature reviews. These three approaches are systematic, semi-systematic, and integrative. Typically, systematic approaches aim to synthesize and compare evidence using quantitative methods, integrative approaches aim to synthesize and critique existing literature using qualitative methods, and semi-systematic approaches fall somewhere in between. Of relevance to this, Creswell and Creswell (2018) contended that qualitative research is inductive, contingent on personal meaning, and focused on reporting the complexity of a situation. Given that my aim was to synthesize information from existing literature to better understand the complex relationship between relocation and social capital, and that these conclusions relied heavily on my own interpretation of the literature, the methods used were qualitative in nature, and this research project can therefore be classified as an *integrative literature review*.

Methods

Here it is useful to revisit the two main objectives of this research. The first was to assess how previous instances of community relocation impacted social capital across the six dimensions outlined in the SC-IQ, and the second was to develop recommendations geared towards preserving or increasing social capital in the context of relocation. These research goals were achieved using a chain-reasoning model, which uses discovery arguments – or what we know about a subject, and advocacy arguments – or what we can conclude from what we know about a subject, to form conclusions or theses (Machi & McEvoy, 2016).

In this context, discovery arguments were crafted by answering the first research question using qualitative data analysis methods to conduct a review of literature pertaining to relocation. Then, based on the findings drawn from the literature review, implicative reasoning was employed to form advocacy arguments, which provided the answer to the second question by developing a series of recommendations focused on preserving or increasing social capital in the context of relocation.

Objective 1: Exploring the Relationship between Relocation and Social Capital

This phase of the research consisted of a literature review geared towards answering the first research question associated with this project, which is: “*What is the relationship between planned relocation as a disaster risk reduction measure and social capital?*”. This was achieved by examining existing literature on community relocation in order to assess how it may have impacted social capital via the six dimensions outlined in the SC-IQ: groups and networks; trust and solidarity; collective action and cooperation; information and communication; social cohesion and inclusion; and empowerment and political action.

Article Selection

When selecting cases for multiple-case studies, it is of utmost importance to carefully choose the cases to be researched, based on the fact that comparisons made between these cases play a significant role in the interpretation of the findings (Baxter & Jack, 2008). Though this project is not a multiple-case study, this philosophy was employed for selecting the literature to be reviewed, given that similar results across several articles can increase the validity of findings, and contrasting results can outline areas where findings may need to be further investigated. For instance, if it was theorized that community participation is important in preserving social capital, the literature needed to show this consistently in order for this theory to be accepted. Alternatively, if the literature would have shown a variety of results or potential issues linked to community participation, this would have served as an indication that this matter needed to be further investigated and elaborated upon.

For this project, articles were identified by conducting keyword searches of various online databases, mainly Google Scholar, the Royal Roads University Library, and ProQuest. Keywords used were combinations of the following: disaster relocation, planned relocation, climate change relocation, community resettlement, planned retreat, flood relocation, and community relocation. The search results were then organized into three categories: articles pertaining to planned, independent, whole of community relocation as a disaster risk reduction measure; articles on relocation that only partially meet the criteria outlined in category one; and articles that do not fit either of the aforementioned categories. The first category was the main source of information for this research, the second was used to increase the validity of the findings from the first category when necessary, and articles in the third category were discarded.

In total, 27 articles were selected for analysis. The location, reason for relocation, and authors are represented in the table below.

Table 1: Article Categorization

Category 1: Planned, independent, whole of community relocation as a disaster risk reduction measure			
Location	Reason	Author(s)	Year Published
1. Narikoso, Fiji	Sea-Level Rise/Coastal Erosion/Flooding	Barnett & McMichael	2018
2. Narikoso, Fiji	Sea-Level Rise/Coastal Erosion/Flooding	Bertana	2019
3. Newtok, Alaska	Coastal Erosion	Bitoune	2014
4. Pacific Island Countries – General	Sea-Level Rise/Coastal Erosion/Flooding	Campbell et al.	2005
5. Vunidogoloa, Fiji	Sea-Level Rise/Coastal Erosion/Flooding	Charan et al.	2017
6. Mekong Delta, Vietnam	Flooding	Chun	2014
7. Asia and the Pacific - General	Climate-Related/Sea-Level Rise/Coastal Erosion	Connell & Coelho	2018
8. El Choncho, Colombia	Coastal Erosion	Correa & Gonzalez	2000
9. Pune, India	Flooding	Cronin & Guthrie	2011
10. USA/Panama/Fiji/Papua New Guinea/Solomon Islands/Vanuatu	Climate Change/Sea-Level rise/Coastal Erosion	Dannenburg et al.	2019
11. Carteret Islands, Papua New Guinea	Sea-Level Rise/Coastal Erosion/Flooding	Edwards	2013
12. East Honiara, Solomon Islands	Flooding	Ha’apio et al.	2018
13. Louisiana, USA Tribal Communities	Environmental/Technological Disasters/Climate Change	Maldonado	2014
14. USA Tribal Communities	Climate Change/Sea-Level Rise/Land Erosion/Permafrost Thaw	Maldonado et al.	2013

15. Shishmaref, AK, USA	Sea-Level Rise/Coastal Erosion	Marino	2012
16. Vunidogoloa, Vunisavisavi, and Narikoso, Fiji	Sea-Level Rise/Coastal Erosion/Flooding	McMichael et al.	2019
17. Vunidogoloa, Fiji	Sea-Level Rise/Coastal Erosion/Flooding	McNamara & Des Combes	2015
18. Nabukadra and Navuniivi, Fiji	Sea-Level Rise/Coastal Erosion/Flooding	Nichols	2019
19. Allenville, AZ, USA	Flooding	Perry & Lindell	1997
20. Denimanu and Vunidogoloa, Fiji	Sea-Level Rise/Coastal Erosion/Flooding	Piggott-McKellar et al.	2019

Category 2: Articles on relocation that only partially meet the criteria outlined in category one

1. Zhulu Tribal Community, Taiwan	Typhoon (Unplanned Relocation)	Lin & Lin	2020
2. Royal Chitwan National Park, Nepal	Development (not Disaster Risk Reduction)	McLean	1999
3. Kotaka, Japan	Earthquake (unplanned resettlement before permanent relocation occurred)	Abe & Shaw	2014
4. Worldwide – General	Review of relocation literature	Petz	2015
5. Wan Sheng, Inner Mongolia, China	Environmental and poverty-related resettlement (not Disaster Risk Reduction exclusively)	Rogers & Wang	2006
6. Canadian Subarctic Indigenous Communities	Development – (not Disaster Risk Reduction)	Waldram	1987
7. Inner Mongolia, China	Environmental and poverty-related resettlement (not Disaster Risk Reduction exclusively)	Yang	2014

Analysis

When analyzing qualitative data, it is important to view the data as a whole in order to gain a thorough understanding of the situation at hand, as opposed to focusing on individual parts or factors of influence (Baxter & Jack, 2006). To achieve this, Creswell and Creswell (2018) “urge researchers to look at qualitative data analysis as a process that requires sequential steps to be followed, from the specific to the general, and involving multiple levels of analysis” (p.193). For this phase of the research, the data – or information pulled from the literature, was analyzed using a five-step process outlined by Creswell and Creswell (2018). A brief description of each step and how it was applied during this research is provided below.

Step 1: Organize and Prepare Data for Analysis. As explained by Creswell and Creswell (2018), “this step involves transcribing interviews, optically scanning material, typing up field notes, cataloguing all of the visual material, and sorting and arranging data into different types depending on the sources of information” (p.193). During this step, I read through the selected literature in order to identify passages that pertain to the impacts of relocation on each of the SC-IQ dimensions, and organized them thematically by dimension. For example, if an article described a situation where individuals voiced their desire to keep the same neighbours following relocation, this passage was extracted and categorized under the *groups and networks* dimension of social capital because it signals the importance for community members to retain their existing networks. This was repeated for each selected article, and each SC-IQ dimension. These passages were perceived as raw data, organized and prepared for analysis.

Step 2: Read or Look at the Data. Once organized and categorized, I spent time reading through and reflecting on the collated passages associated with each of the SC-IQ dimensions. As explained by Creswell and Creswell (2018), this step “provides a general sense of the

information and an opportunity to reflect on its overall meaning” (p.193). This process enabled me to begin identifying emerging themes in the literature, which were then used to code the data in step 3.

Step 3: Start Coding the Data. As described by Guest et al. (2012), codes are “typically developed to represent the identified themes and applied or linked to raw data as summary markers for later analysis” (p.10). Additionally, Guest et al. (2012) posited that codes used for exploratory qualitative research are *not* predetermined; they are developed iteratively based on the data collected. After spending time reading the data as described in step 2, themes on *how* the dimensions of the SC-IQ can be impacted by relocation began to emerge. For instance, and remaining with the example of the *groups and networks* dimension of social capital, the most commonly recurring factors of influence mentioned in the literature revolved around physical location and community layout, availability of livelihoods following relocation, and place attachment. Therefore, the passages identified as part of Step 1 were further subdivided based on the aforementioned hypothesized factors of influence, which for the purpose of this research can be perceived as the codes used to represent the identified themes. As such, the codes developed here helped further specify the impacts to the dimensions of the SC-IQ by identifying ways in which this occurred across various cases.

Step 4: Generate a Description and Themes. Here, Creswell and Creswell (2018) discussed using the coding process to “generate a description of the setting or people as well as categories or themes for analysis” (p.194). In this context, the themes or categories to be analyzed were twofold. First, the primary themes under which the data were categorized were the six dimensions of social capital as outlined in the SC-IQ. Second were the sub-themes that emerged during step 1 to 3 of this process. As such, the themes, and their descriptions were

generated by using Grootaert et al.'s (2004) description of each dimension of social capital, subdivided into the themes that were identified while analyzing the literature. These descriptions are outlined in the introductory paragraphs of each section of chapter 4, which is organized thematically by social capital dimension.

Step 5: Representing the Description and Themes. Creswell and Creswell (2018) contended that the purpose of this step is to “advance how the description and themes will be *represented* in the qualitative narrative”, and that “the most popular approach is to use a narrative passage to convey the findings of the analysis” (p.195). Remaining in line with this, I represented the themes by providing evidence from the literature to support their existence. This evidence is outlined in chapter four of this thesis, which as previously mentioned is organized thematically by social capital dimension and sub-themes identified through the literature analysis process.

Objective 2: Preserving or Increasing Social Capital in the Context of Relocation

In the chain-reasoning model, implicative logic is used to form advocacy arguments which ultimately lead to conclusions. As explained by Machi and McEvoy (2016), implicative reasoning “is a logical interpretation of evidence that produces propositions that signal a specific conclusion, forming a deductive argument. If *A* is true, then we can assert that *B* is also true” (p.112). This is the approach that was employed to solve the second research problem. In this context, the evidence interpreted were the findings from the first research problem, which aims to assess the relationship between relocation and social capital. Based on this, implicative logic was used to answer the second question: “*How can social capital be preserved or increased in the context of relocation?*”.

Machi and McEvoy (2016) outlined nine patterns of implicative logic used to form arguments. For this research objective, *parallel case*, and *ends-means* logic was used. In parallel

case logic, if something is true for one case, the same should be true for a similar case. For example, if a relocated community experienced positive relocation outcomes linked to increased livelihood opportunities, then another similar community being relocated is likely to also benefit from increased livelihood opportunities. In the ends-means pattern of implicative logic, “the rule of logic employed states that a result is directly attributable to carrying out a chosen action. Here, the direction or action claimed by the premises will achieve the end sought in the research question” (Machi & McEvoy, 2016, p. 119). For instance, if we know that a sense of empowerment leads to positive social capital outcomes, and we also know that a particular course of action leads to an increased sense of empowerment, then we can make the conclusion that taking this course of action in the context of relocation is likely to contribute positively to social capital, which achieves the ends sought in the second research question.

In brief, objective 2 elaborated further on the findings from the literature review to answer the second research question from this project. In alignment with the chain-reasoning model, the findings from the first research question served as the discovery arguments and outlined what is known about the relationship between social capital and relocation. As for advocacy argumentation, a better understanding of how relocation and social capital can impact each other served as the basis for using implicative reasoning and the chain-reasoning model to identify ways in which the negative impacts of relocation can potentially be mitigated, and ways in which social capital outcomes in general can be improved in the context of relocation.

Validity and Reliability

As explained by Creswell and Creswell (2018), there are several procedures to ensure validity in qualitative research, and using multiple of these procedures is necessary to ensure that findings are valid from various standpoints. As such, I chose three that are pertinent to my

research from the work of Creswell and Creswell (2018). The first is triangulation, where themes are validated by using several sources of data. In this scenario, this was achieved by looking at several different articles and case studies. Themes that emerged multiple times from one case to another were considered valid. The second validation method used revolves around confronting the findings that contradict the main themes and hypotheses of the research. As subjective experiences collected during qualitative research are contingent on personal experience and perspective, it is possible that certain findings diverge from what was expected or hypothesized. It would however be misrepresentative (not to mention unethical) to intentionally exclude these findings from the study. Third, this thesis was reviewed by my thesis committee as well as an external reviewer.

Generally speaking, “reliability refers to the consistency, stability, and repeatability of results” (Twycross & Shields, 2004, p.36). Because qualitative research tends to vary widely from one scenario to another and rely heavily on researcher and participant perspectives, some have argued that reliability in qualitative research lies within specificity as opposed to generalizability (Caracelli & Greene, 1997). That said, it has also been argued that literature reviews can actually be superior to single case studies for answering research questions, as they provide the opportunity for integrating a variety of empirical findings and perspectives (Snyder, 2019). This research operated on this premise. As the framework used for assessing the relationship between relocation and social capital is identical for all articles reviewed, it is assumed that findings that are similar from one to another are reliable.

Limitations

Given that there is limited research on the relationship between relocation and social capital specifically, most of the findings from this literature review were drawn using deductive

reasoning. That is, the literature examined speaks to the impacts of relocation in general, and conclusions as they pertain to social capital were drawn by examining said literature through the lens of the six dimensions of the SC-IQ. This limits the conclusions to theoretical concepts as opposed to specific, quantifiable data. In order to specifically measure how social capital is impacted by relocation, case studies would be required to quantifiably measure social capital prior to and following relocation.

Another limitation of this study pertains to scope. As relocation becomes a more common reality, there is much research on the subject being conducted from several different fields such as climate change adaptation, disaster risk reduction, development, and sociology. Further to this, there are several frameworks and best practice documents being developed for conducting relocation projects (Doberstein & Tadgell, 2016). As such, it can be expected that there are several areas of overlap between different frameworks and areas of research. This research in particular approached the problem from the perspective of social capital and systems theories, while acknowledging the fact that overlap with the findings and recommendations stemming from other disciplines is likely.

Finally, it needs to be acknowledged that sustainable development theory outlines five kinds of capital (financial, natural, produced, human, and social), and that all five are essential contributors to sustainable development outcomes (Goodwin, 2003). Though this research can be used for developing conclusions based on social capital, if approaching the problem from a sustainable development perspective, all forms of capital must be taken into consideration to develop a truly holistic perspective of the psychosocial impacts of relocation.

Chapter 4: Relocation and Social Capital

In this chapter, the results from the literature review are presented. These findings elaborate on the relationship between relocation and social capital through the six dimensions outlined in the SC-IQ, thus answering the first research question associated with this project. Further to this, the findings discussed in this chapter served as the discovery arguments employed in the chain-reasoning model outlined by Machi and McEvoy (2016) to answer the second question, which pertains to preserving or increasing social capital in the context of relocation.

Groups and Networks

For this category, the SC-IQ seeks to measure “the nature and extent of a household member’s participation in various types of social organizations and informal networks, and the range of contributions that one gives and receives from them” (Grootaert et al., 2004, p.5). For the purpose of this research, I examined the literature on relocation in order to find evidence of factors that might influence participation in groups and belonging to networks. Relying upon the analysis methods outlined in Chapter 3, the themes that most commonly emerged revolve around physical location and community layout, livelihoods, and place attachment.

Physical location and community layout are a consistent factor of influence in both the planning and execution phases of relocation. First, the strong desire for communities to remain physically close to each other is well documented in the literature. For instance, communities showed reluctance to relocate when presented with an offer of partial relocation (Bertana, 2019), chose to keep the same neighbours when given the opportunity to design their new village (McMichael et al., 2019; McNamara & Des Combes, 2015), or waited *years* for relocation to occur in order to remain together as a community (Perry & Lindell, 1997). In cases where

individuals were dissatisfied with life after relocation, such dissatisfaction was commonly due to discontent towards the physical disarticulation of their existing networks (Campbell et al., 2005; Charan et al., 2017; Maldonado, 2014). Furthermore, it was demonstrated that relocated individuals were satisfied with the positive impacts to their interpersonal networks when relocated closer to major transportation routes which made it more convenient for them to visit or be visited by their friends and relatives (Yang, 2014).

Livelihoods are another important factor of influence on groups and networks. Of course, livelihoods are central to long-term community resilience and therefore must be considered in the context of relocation (Doberstein & Tadgell, 2015; Lin & Lin, 2020). In addition to this, livelihoods exert a significant influence on groups and networks. Quite simply, the absence of adequate livelihood opportunities at the new site can result in at least a portion of individuals returning to the old site or relocating elsewhere to find new opportunities (Chun, 2015; Correa & Gonzalez, 2000; Edwards, 2013; Maldonado, 2014; Nalau & Handmer, 2018). As physical disarticulation of communities can have a significant negative impact on groups and networks, social capital has the potential to be negatively impacted by a lack of adequate livelihood opportunities.

The third point to be made with regards to groups and networks revolves around place attachment. From a western perspective, land is often viewed as an asset to buy, sell, trade, or otherwise use. But given that natural hazards and the impacts of climate change are more likely to affect Indigenous communities (Galloway McLean, 2010; Green & Minchin, 2014; Norton-Smith et al., 2016), there is value in acknowledging Indigenous perspectives with regards to land, for whom the importance cannot be understated. For instance, Ravuvu (1988) explained that for Fijians, individuals and their land are an extension of each other as opposed to being two

discriminate entities. This is represented in the Fijian term *vanua*, which is “all-encompassing; it roughly translates to land, soil, people, ancestors, and country, but it also describes a concept. It symbolizes a relationship people have to their land” (Bertana, 2019, p.6). From this viewpoint, where there is no clear delineation between people and their land, it becomes easy to make the argument that the land is in fact part of the community and vice versa. As such, the very act of separating a community that holds this type of perspective from its land is a form of social disarticulation from which communities grieve as they would grieve the loss of a friend or family member (Charan et al., 2017).

Trust and Solidarity

This section of the SC-IQ “seeks to procure data on trust towards neighbors, key service providers, and strangers, and how these perceptions have changed over time” (Grootaert et al., 2004, p.5). Here I examine trust and solidarity within the community, and trust towards leadership, key service providers, and government.

Trust within the community seems to be impacted the most when relocation results in new interactions with outside influences or changes in community composition. For instance, the chief of Vunidogoloa, Fiji, expressed concerns about people interfering with his community’s customs and culture at the new site (McMichael et al., 2019). This referred to influence on everything from spiritual beliefs, diet, alcohol consumption, and even youth fashion. Similar concerns associated with community composition were reported by Maldonado et al. (2013); in the case of an Indigenous community in Louisiana awaiting relocation, a portion of the community gradually left in search of livelihoods, leading to a change in the composition of the current community. In this scenario, many people expressed concerns with regards to trust and safety, stating that they no longer felt safe to wander around at night and sleep with the doors

unlocked as they did before. Furthermore, it needs to be acknowledged that these types of changes seem to be most troubling for older people, who sometimes become isolated as a result and face the most challenges in adapting to their new environments (Rogers & Wang, 2006; Yang, 2014).

At certain points during relocation projects, trust in institutions becomes extremely important. For instance, trust in institutions is necessary for communities to remain committed to relocation, as well as to encourage communities to follow directions and guidelines geared towards facilitating the relocation project itself (Campbell et al., 2005; Ha'apio et al., 2018; Maldonado, 2014; Marino, 2012; Perry & Lindell, 1997). The biggest influencer of trust towards leadership or government revolves around failed promises and lack of information sharing (Bertana, 2019; Edwards, 2013; Maldonado, 2014). This is particularly relevant for traditionally marginalized populations, who have a history of being excluded from sustainable adaptation strategies. Perhaps best explained by Marino (2012), unless the relationship between government and marginalized populations evolves, "traditionally marginalized populations, whose very marginality contributes to vulnerability, will likely continue to be marginalized from adaptation decision-making and continue to distrust governance structures that are already in place" (p.379).

Collective Action and Cooperation

As explained by Grootaert et al. (2004), "this category explores whether and how household members have worked with others in their community on joint projects and/or in response to a crisis" (p.5). In this section, I examine how communities work together in the context of relocation, including interacting with external stakeholders.

Unequivocally, the research showed that active community involvement – especially with regards to participatory decision-making, is an important contributor to positive outcomes

following relocation (Bertana, 2019; Bitoune, 2014; Campbell et al., 2005; Chun, 2015; Connell & Coelho, 2018; Cronin & Guthrie, 2011; Dannenburg et al., 2019; Edwards, 2013; Maldonado et al., 2013; McMichael et al., 2019; McNamara & Des Combes, 2015; Perry & Lindell, 1997; Petz, 2015; Piggott-Mckellar et al., 2019). Further to this, when given the opportunity to participate, communities do so readily and extensively. Where adequate governance structures and capacity exist, communities participate in activities such as decisions surrounding the logistics of their relocation (Bitoune, 2014; McMichael et al., 2019), restoration of livelihoods (Lin & Lin, 2020; McNamara & Des Combes, 2015), and even construction of the new settlement (Correa & Gonzales, 2000; Cronin & Guthrie, 2011).

That said, it also appears that the pre-existing sense of collective action and cooperation within a community plays an important role with regards to how it can be impacted by relocation. On the one hand, for closely-knit communities with a habit of collective action and cooperation, relocation projects can be seen as an opportunity to work together and further develop this aspect of their community (Correa & Gonzales, 2000; Lin & Lin, 2020; Yang, 2014). On the other hand, in instances where communities are not given the opportunity to participate, lack equal opportunities for all community members, or face challenges approaching complex issues in a collaborative manner, relocation can further erode the sense of collective action and cooperation (Chun, 2015; Ha'apio et al., 2018; Piggott-McKellar et al., 2019).

Information and Communication

This section of the SC-IQ exists based on the principle that “access to information is being increasingly recognized as central to helping poor communities have a stronger voice in matters affecting their well-being” (Grootaert et al., 2004 citing World Bank, 2002, p.5). Though not all communities experiencing relocation are presumably poor, it is evident that access to

information would enable individuals to have a stronger voice during relocation, regardless of their socio-economic status. As such, this section explores how the literature addresses the issue of information in the context of relocation.

First, open communication and access to information is crucial for gaining and keeping the trust of the community being relocated (Bertana, 2019; Edwards, 2013; Ha'apio et al., 2018; Perry & Lindell, 1997; Piggott-McKellar et al., 2019). Trust, as argued previously, is in and of itself an important contributor to positive outcomes in the context of relocation. Further to this, ensuring that communities have an appropriate level of understanding of risk in their current environment is key to gaining and maintaining commitment to relocation. Communities which underestimate the seriousness, permanence, or degenerative nature of the hazard they are facing often fail to see the point of relocation (Charan et al., 2017; Dannenburg et al., 2019; McMichael et al., 2019). Finally, information is extremely important with regards to empowering communities to participate meaningfully in their relocation, including being adequately informed and prepared for their post-relocation site, which plays an important role in adaptive capacity and long-term resilience (Charan et al., 2017; Chun, 2016; Connell & Coelho, 2018; Ha'apio et al., 2018; Lin & Lin, 2020).

Another consideration is the importance of traditional and cultural information. On the one hand, traditional and cultural knowledge is understood to be a significant source of adaptive capacity and resilience (Campbell et al., 2005; Edwards, 2013; Lin & Lin, 2020; Maldonado et al., 2013; McMichael et al., 2019). On the other hand, communities who rely heavily on specific, place-based traditional knowledge and information can face significant challenges in adapting to a new way of life in a new location (Maldonado, 2014; McLean, 1999; Waldram, 1987). As such, even though challenges with communication can exist due to language and cultural

differences (Bitoune, 2014), all efforts should be placed towards information sharing between the community and the entity facilitating the relocation in order to both take traditional and cultural knowledge into consideration, and to share information to maximize the potential for an adaptive, culturally appropriate relocation.

Social Cohesion and Inclusion

In the SC-IQ, Grootaert et al. (2004) examine social cohesion and inclusion by identifying the differences between members and subsections of communities, “ways in which they are managed, and which groups are excluded from key public services” (p.5). This section examines both how relocation can influence community cohesion and inclusion, as well as how pre-existing social cohesion and inclusion can influence the relocation process.

When the possibility exists, the first decision about relocation that needs to be made is whether to relocate at all in the first place. On this subject, the literature demonstrated that different groups within communities tend to hold different views, and that this is particularly true among different age groups. Typically, younger people are prepared to relocate more readily, while older people have a stronger sense of place attachment and are much more hesitant to do so (Charan et al., 2017; Maldonado, 2014; Rogers & Wang, 2006). It also appears that these concerns are not unfounded, as older people seem to have the hardest time adapting to their new environments following relocation (McMichael et al., 2019; Rogers & Wang, 2006; Yang, 2014). Unfortunately, in some cases discussions surrounding relocation can rapidly become sensitive and cause division within communities, even where strong communal participatory decision-making skills exist (Barnett & McMichael, 2018; McMichael et al., 2019; Nichols, 2019).

With regards to inclusion, it is also important to ensure that all subsections of the community have the chance to participate in the decision-making process. For instance, it has been documented that women are not always as involved in the process as their male counterparts (Campbell et al., 2005; Ha'apio et al., 2018). As an example, in one case study of a relocated community in East Honiara, Solomon Islands, men decided to relocate the community to the new site before adequate water, sanitation, and health services were available. This decision caused a serious inconvenience for the women in the community, who did not feel they were adequately consulted before this decision was made (Ha'apio et al., 2018).

Finally, there have been instances where a strong pre-existing sense of social cohesion and inclusion has resulted in delays to the relocation project. For example, community members in Vunidogoloa ended up voting against relocation based on the respect that the younger generation had for the elders. The elders did not want to move, so the younger generation decided to stay in place until the elders that were against relocation passed away (Charan et al., 2017). Further to this, relocation can be delayed based on the simple fact that thorough deliberation takes time, especially on the subject of issues as potentially contentious as community relocation (Bitoune, 2014; Cronin & Guthrie, 2011; Dannenburg et al., 2019; McMichael et al., 2019).

Empowerment and Political Action

In this section, the SC-IQ seeks to explore individuals' "sense of happiness, personal efficacy, and capacity to influence both local events and broader political outcomes" (Grootaert et al., 2004, p.5). For the purpose of this research, I examined the extent to which relocating or relocated individuals felt they had an opportunity to influence the outcomes of their relocation,

as well as their personal sense of well-being as it pertains to relocation. The main themes revolve around empowerment itself, agency and sense of ownership, and well-being in general.

On the subject of empowerment, the importance of community involvement in the process and power to exert control over the decisions surrounding their relocation is well documented (Bertana, 2019; Bitoune, 2014; Campbell et al., 2005; Chun, 2015; Cronin & Guthrie, 2011; Dannenburg et al., 2019; Edwards, 2013; Ferris & Weerasinghe, 2020; Maldonado et al., 2013; Perry & Lindell, 1997; Petz, 2015; Piggott-McKellar et al., 2019). It has also been demonstrated that relocation tends to have the best outcomes when it is initiated and/or led by the community itself (Campbell et al., 2005; Dannenburg et al., 2019). To reinforce this point, one of the most common complaints associated with negative relocation outcomes revolves around the lack of adequate community involvement and consultation (Chun, 2015; Edwards, 2013; Maldonado et al., 2013; Piggott-McKellar et al., 2019). In brief, it is evident that extensive, continuous, and meaningful community participation is key to both promoting positive outcomes following relocation and promoting a sense of empowerment within the community.

However, even when communities are enabled to take control of the decisions surrounding their relocation, some further challenges can exist with regards to ensuring all community members are empowered equally. For instance, traditionally marginalized groups often lack opportunities to participate meaningfully in decisions surrounding relocation (Connell & Coelho, 2018; Edwards, 2013). This is particularly true for women (Campbell et al., 2005; Connell & Coelho, 2018; Ha'apio et al., 2018; Piggott-McKellar et al., 2019). As such, it is also possible that a relocation project can increase the sense of empowerment for certain members of a community, while simultaneously decreasing it for others.

Another important aspect of extensive and adequate community involvement is that it seems to promote agency and a sense of ownership within the community, leading to increased resilience and livelihood outcomes (Cronin & Guthrie, 2011; Dannenberg et al., 2019; McMichael et al., 2019). For instance, McMichael et al. (2019) contended that multi-scalar engagement with communities helped create momentum leading to more effective decision-making. This sense of agency is also reflected by Ha'apio et al. (2018), who observed that some of the empowered community members in East Honiara were seeking to pursue formal education in order to increase their adaptation options, and by Cronin and Guthrie (2011), who reported that during the relocation of a slum in Pune, India, families became much more involved in construction when they were made aware of which tenement was theirs. In the latter case, when revisited nearly six years later, not one resident had moved away from the new settlement.

Finally, it needs to be acknowledged that relocation has been demonstrated to have a significant impact on individuals' personal well-being. As explained by Edwards (2013), "displacement results in increased stress and associated mental health problems for those who move" (p.174). For instance, Charan et al. (2017) posited that communities with a strong attachment to their land "collectively view the process of relocation as agonizing, poignant, and one that is robbing them of their communal identity" (p.24). This deep attachment to land and associated grief is reflected broadly throughout the literature, especially in cases on the subject of Indigenous communities (Bertana, 2019; Campbell et al., 2005; Charan et al., 2017; Edwards, 2013; Maldonado et al., 2013).

Implications

Two broad conclusions can be drawn from these findings. The first is obvious: relocation can have a significant impact on social capital, which in turn has a significant influence on the

psychosocial outcomes of relocation. The second is that though relocation has the potential to cause negative impacts to social capital, there are also instances where it has had positive effects on certain of its dimensions. As such, it can be theorized that a) being aware of the potential negative impacts of relocation can help stakeholders identify and avoid the circumstances in which they can arise, and b) there is potential for relocation projects to be leveraged in ways that promote positive social capital outcomes.

First, social capital and its various dimensions are deeply woven into the social fabric of communities and exert a significant influence on a broad range of psychosocial outcomes, including livelihoods, long-term resilience, and adaptability. The findings from this research strongly suggest that the various dimensions of social capital can be significantly impacted by relocation in both negative and positive ways, and that the pre-existing state of social capital can influence relocation processes and outcomes. These findings can therefore be used as a starting point to reiterate the fact that social capital is an extremely important consideration as it relates to promoting positive psychosocial outcomes in the context of relocation, as well as to identify the circumstances in which negative outcomes can occur in order to make efforts towards avoiding them. For example, and as abundantly demonstrated throughout this chapter, lack of information sharing with the community being relocated can result in the erosion of trust towards external stakeholders and negatively impact commitment to relocation. From the perspective of an organization facilitating relocation, this information could be used towards promoting an understanding of the importance of this consideration, and to justify the allocation of resources towards developing a communication strategy geared towards keeping communities informed on all matters pertaining to their relocation.

Second, though the literature is saturated with instances of various dimensions of social capital being negatively impacted by relocation, there are also scenarios where the opposite is true. In these scenarios, there are several common, recurring themes such as adequate community participation and empowerment, and preservation or amelioration of livelihood opportunities. In the instances of positive relocation outcomes, an important success factor seems to revolve around creating momentum across the various dimensions of social capital. Though it could be argued that there needs to be a certain level of pre-existing social capital in a given community for this momentum to be triggered, it could also be argued that all communities hold strengths and weaknesses, and that identifying them in order to leverage strengths and address weaknesses would be an important starting point for putting the wheels in motion.

Chapter 5: Promoting Positive Social Capital Outcomes

This chapter outlines a series of recommended actions geared towards preserving or increasing social capital in the context of relocation. This is based on the findings from the literature review and uses chain-reasoning – or if/then, argumentation. As it applies to this research, *if* the findings from the literature review suggest that a certain aspect of relocation can negatively impact a given component of social capital, *then* it is reasonable to recommend an action which aims to achieve the opposite effect if aiming to preserve the integrity of said component. As with the chapter that aims to explore the relationship between relocation and social capital, the recommendations in this section are organized by dimension of social capital as outlined in the SC-IQ. Following this, a few recommendations on governance are provided, as it is likely to help enable the recommendations offered throughout this chapter.

Groups and Networks

Here, the literature demonstrated that there are three main themes pertaining to how groups and networks can be impacted by relocation. These themes are physical location and community layout, livelihoods, and place attachment. As such, the recommendations herein revolve around how to address potential issues related to these three themes.

Physical Location and Community Layout

1. *When planning for the new site, design and layout should focus on creating opportunities for positive interactions between community members.*

It has been widely demonstrated that community layout plays a significant role in how communities interact with each other. For instance, Waldram (1987) observed that “the relocation and consolidation of subarctic native populations into settlement patterns designed according to southern, urban models has often resulted in cultural confusion and an increase in

interpersonal tension, alcohol abuse, and violence” (p.117). Further to this, and unsurprisingly, when these communities were given the opportunity to lead their own relocation with limited government intervention, relocation initiatives and new settlements were conducted and created in a much more culturally appropriate fashion.

The importance of community layout is also reflected by the fact that when given the opportunity to design their own community, community members are highly motivated to participate, and typically aim to keep the same neighbours and spatial configuration in order to preserve pre-existing community dynamics (McMichael et al., 2019; McNamara & Des Combes, 2014). With regards to positive interactions in private spaces, relocation projects can also serve as opportunities to address issues such as overcrowding, or issues related to house design. For instance, McMichael et al. (2019) explained that during the relocation of Vunidogoloa, villagers used the opportunity to build more houses and reorganize households so that each family or married couple would have their own home. In this case, house design was also a result of a thorough deliberation among the community, the final decisions of which were made by the women.

Per this recommendation, emphasis should be placed on creating communities that help promote positive interactions between community members. This can be done by creating community layouts that enable community members to retain a sense of normalcy and cultural appropriateness in their new environment, addressing existing issues such as overcrowding, and creating opportunities for improving house design and layout.

2. *When planning for the new site, communal spaces should be attributed as much importance as residential spaces.*

As contended by Aldrich and Meyer (2015), social capital can be increased by “creating areas where residents can meet and spend time – however short – together” (p. 263). Examples provided by Aldrich and Meyer (2015) include coffee shops, bookstores, bars, hair salons, public squares, and libraries. Though most of these examples might not be applicable to small, remote communities that are most likely to be relocated, the principle remains the same. Indeed, efforts should be placed on understanding where and how community members interacted and socialized with each other at the previous site, and on replicating or improving these conditions at the new site. Community consultation is important here, because areas where individuals socialize can often be informal. For instance, Abe and Shaw (2014) reported that in Japan, the relocated community of Kotaka habitually used their community shrine and its front lawn as a gathering place. Among a variety of celebrations, they used the grounds to celebrate the new year, and to hold monthly tea parties. When they were informed that the relocation initiative would not fund a large parcel of land on which to house the shrine, they used their own savings to buy the necessary land, once again underlining the importance for communities to retain a sense of normalcy at the new site. Ultimately, relocation projects that aim to promote positive social capital and psychosocial outcomes in general must view the process beyond an autocratic relocation of people and their homes. As captured by one Fijian official, relocation “is not about moving houses, it’s about moving lives” (McNamara & Des Combes, 2015, p.317).

3. *When selecting a new site, consideration should be given to relationships that extend beyond the community.*

Upon reviewing the literature, it became evident that the impacts of relocation on social networks significantly influences social capital in the context of relocation. Unsurprisingly, those whose relationships suffered due to relocation commonly cited this as a reason for their discontent following relocation (Campbell et al., 2005; Charan et al., 2017; Maldonado, 2014). However, impacts of relocation on relationships are not indiscriminately negative. For instance, Yang (2014) reported that following the relocation of the Wan Sheng village in Inner Mongolia, interpersonal networks that extend beyond the community actually *improved*, as the new village was closer to major roads and railways, making it safer and more convenient for individuals to visit or be visited by their friends and family.

Based on this, when selecting a new site, a certain level of focus should be placed on relationships that extend beyond the community in order to determine the level of influence this should exert on the decision-making process. In this context, factors to be examined could be access to transportation routes and methods, proximity of kin, and importance of relationships, to name a few. Once a thorough understanding of this has been achieved, it can be added to the list of factors for consideration during site selection.

Livelihoods

4. *During the site selection process, an assessment of potential livelihood opportunities should be conducted for all sites being considered, and once a site is selected, efforts should be placed towards preparing community members to pursue these opportunities.*

As argued by Chun (2015), “the purpose of planned relocation programs should not simply be to move people from one location to another. Relocation is rather a means to improve

the well-being of individuals and to this end, their immediate and long-term livelihood outcomes are of critical importance” (p.31). Further to this, livelihoods have a significant influence on groups and networks in the context of relocation, since a lack of adequate livelihood opportunities at the new site may likely force at least a portion of the community to relocate elsewhere in search of opportunities (Chun, 2015; Correa & Gonzalez, 2000; Edwards, 2013; Maldonado, 2014; Nalau & Handmer, 2018). This is an important consideration during the site selection process.

With that said, lack of opportunities in and of itself is not always the culprit. It is often the case that livelihood opportunities are present, but that relocated community members have challenges accessing them due to the fact that they do not hold the necessary skills or knowledge (Ha’apio et al., 2018). Based on this, it becomes evident that developing new livelihood strategies involves not only confirming whether livelihood opportunities exist at the new site, but it also requires that relocated residents have the necessary skills and knowledge to access them.

5. *The relocation project itself should be used to generate opportunities for skills development and employment within communities.*

Any relocation project is a large endeavour that requires efforts in several areas, including administrative, planning, and bureaucratic efforts; physical efforts revolving around moving to and the construction of a new site; community support efforts geared towards mental health and emotional support for relocating community members; and overall project management. As extensively as possible, relocation projects should be leveraged to both provide community members with opportunities for learning new skills, and opportunities for employment in positions related to relocation. In addition to generating income, this will contribute to the development of new skills which will help increase adaptive capacity and self-

sustainability for when relocating to the new environment. Furthermore, this will help create a sense of involvement, which has been widely demonstrated to help with keeping communities committed to relocation, and a sense of agency, which in the context of climate change adaptation, increases resilience to change, mitigates against negative environmental and socio-political impacts, and enables individuals to make use of resources for adaptation in general and for re-establishing livelihoods (Cinner et al., 2018).

Place Attachment

6. *In preparation for relocation, consideration should be given to ceremoniously honour the land communities are departing from, and the land to which they are relocating.*

Communities that perceive their land as an important spiritual and cultural aspect of their community and an extension of themselves experience serious grief and loss when forced to relocate. This is clearly represented by Nalau and Handmer (2018), who explained that for villagers in Biausevu, Fiji, “the move had profound impacts on their identity, with some describing the relocation as a funeral process” (p.9). A similar observation was made by Charan et al. (2017), who stated that “a representative from the Vunidogoloa women’s group described the movement, ‘as if a funeral procession was underway’” (p.26).

Based on this, this recommendation seeks to acknowledge the fact that for many, having to leave their land goes beyond a simple change of environment, and instead is akin to the loss of a beloved family member with whom they have a deep connection with. In these instances, communities should take the opportunity to pay respects to the land they are leaving in whichever ways they would when honouring the loss of a member of their community. At the same time, approaching and settling on the new land should be perceived as entering a new relationship. In this case, communities can consider holding a ceremony for which a new union

is formed and be cognizant of the fact that as with any new relationship, efforts must be placed into getting to know the new land and allowing time to form a deep and meaningful bond.

Trust and Solidarity

With regards to trust and solidarity, two important themes were explored during the literature review. The first relates to how relocation can impact trust and solidarity within the community, and the second relates to how relocation can impact trust towards leadership, key service providers, and government. Below are recommendations pertaining to each.

Trust and Solidarity Within the Community

- 7. In preparation for relocation, factors of influence on community composition, culture, and norms should be taken into consideration.*

Previous instances of relocation have shown that relocation can have a significant impact on trust between community members. Mostly, this has been attributed to change in community composition if the community becomes scattered (Maldonado et al., 2013), the impact of outside influences (McMichael et al., 2019), and of particular relevance to older community members, the increased presence of strangers in the community (Rogers & Wang, 2006; Yang, 2014). If aiming to mitigate the impacts of relocation on trust within the community, these factors must be taken into consideration during the site selection process, as well as the broader planning process. For instance, is the community considering moving to a location in which outsiders can also establish themselves? Does the relocating community have a significant amount of young, impressionable youth susceptible to outside influences? If so, does the area being considered have a high crime rate, which may both negatively impact the youth and cause potential issues for vulnerable community members? In summary, the point being made here is that once an understanding of the site being considered and its potential impacts on trust within the

community has been established, communities will be better positioned to select a site that is suitable for their needs, and to prepare for life in their new location.

Trust Towards Leadership, Key Service Providers, and Government

8. *In preparation for relocation, efforts should be made to build or strengthen relationships between communities and all stakeholders, including community leadership, government bodies, and other stakeholders involved in the project.*

In addition to the trust and solidarity required for relocating individuals to work together effectively as they move forward with relocation, a similar requirement exists for enabling relocating communities to work effectively with other stakeholders, follow guidelines, and remain committed to relocation (Campbell et al., 2005; Ha’apio et al., 2018; Maldonado, 2014; Marino, 2012; Perry & Lindell, 1997). In fact, and as explained by Perry and Lindell (1997), there are times during the relocation process when the role of the citizenry goes from being actively involved to having to simply trust their community leaders as well as external organizations participating in their relocation. For trust between the community and other stakeholders to be built and upheld, both the relocating communities and external stakeholders have important roles to play.

First, the most common contributors to the erosion of trust towards external stakeholders revolve around two things: lack of information sharing, and external stakeholders failing to follow through with previous commitments (Bertana, 2019; Edwards, 2013; Maldonado, 2014). Though information sharing is a recommendation in itself to be further elaborated upon later in this chapter, here we can state the obvious: external stakeholders should commit to keeping communities informed on all developments pertaining to their relocation. In addition to this, external stakeholders should be cautious when making commitments to relocating communities.

In other words, they should avoid making empty promises and unlikely commitments. Furthermore, should a previous commitment not come to fruition for one reason or another, external stakeholders should communicate this with relocating communities in a timely, respectful, and transparent manner, and be prepared to discuss alternative solutions.

Building and maintaining trust between communities and external stakeholders can be achieved through hosting social events, team building activities, and workshops with the intention of providing networking opportunities for parties who will be collaborating with each other. These opportunities will hopefully encourage the development of effective working relationships. Given that relocation involves uprooting and disrupting the lives of entire communities, it should therefore not be approached as a menial task that requires a minimal level of commitment. As such, if aiming to ensure a respectful process that maximizes the potential for positive psychosocial outcomes, external stakeholders should be committed to developing a deep understanding of the communities they are relocating. This includes developing an understanding of culture and customs, which is made possible by taking the time to craft trusting relationships with community members.

Collective Action and Cooperation

On the subject of collective action and cooperation, the findings from the literature review revealed that when it comes to relocation, the importance of community involvement cannot be understated. They also indicated that community members seem highly motivated to participate in their own relocation, and that enabling them to do so results in more positive outcomes following relocation. Furthermore, the findings suggest that relocation can either strengthen or erode existing relationships within communities, contingent on the pre-existing sense of collective action and cooperation. As such, the recommendations below focus on

ensuring that communities have opportunities to participate thoroughly, and on preparing them to work together effectively in the context of relocation.

9. *In preparation for relocation, efforts should be placed towards developing team building, communication, and collaborative problem-solving skills within the community in order to encourage effective collective action and cooperation during the planning, execution, and post-relocation phases.*

Relocation projects require extensive collaboration between community members. In communities where strong relationships and a habit of healthy collective action and cooperation exist, the literature showed that working together in the context of relocation can actually serve to further deepen these attributes (Lin & Lin, 2020; Yang, 2014). At the same time, for communities where the opposite is true, relocation can cause division and further challenges as they pertain to pre-existing relationships (Chun, 2015; Ha'apio et al., 2018; Piggott-McKellar et al., 2019).

Based on these findings, the argument can be made that the pre-existing state of relationships and collaborative work habits within a community, regardless of how they were formed, play a significant role in social capital outcomes in the context of relocation. This was exemplified in instances such as the relocation of Narikoso, Fiji, where village women worked together effectively to design new homes (McMichael et al., 2019), and in Wan Sheng, where many villagers felt their already-positive relationships became even stronger following relocation, attributing this to the increased need to rely on each other due to the loss of income and lifestyle changes associated with their relocation (Yang, 2014).

As such, this recommendation revolves around deepening relationships within the community as soon as relocation becomes a reality. The ways in which this is achieved does not

have to be related to the relocation project. To provide a few examples, they could take shape as community social events, team building activities, workshops, or smaller-scale projects that enable community members to work together. Ultimately, anything that affords the community opportunities to gain experience with and knowledge on addressing complex or contentious issues collaboratively is likely to contribute to better preparing the community for their relocation effort.

10. Individuals who are relocating need to remain involved throughout every step of the process.

As underlined by Doberstein and Tadgell (2015), “participation and partnership with potentially resettled communities is seen to be an important foundation of resettlement actions” (p.28). This is a theme that is reflected throughout the literature, which consistently showed that relocation projects tend to be most successful when communities have the opportunity to participate meaningfully (Correa & Gonzales, 2000; Lin & Lin, 2020). In government-facilitated relocations, a steering committee composed of all stakeholders – including community leadership, should be implemented in order to promote collaborative decision-making as it pertains to relocation. From the perspective of the community leadership, every opportunity for community members to participate in the decision-making process or in relocation efforts should be provided. This can be done by holding regular town hall meetings, and by implementing community-level working groups focused on facilitating community participation.

Information and Communication

On this matter, the literature review demonstrated that access to information and communication is of monumental importance in both empowering communities to participate meaningfully in their relocation, and in ensuring a positive and culturally appropriate relocation

experience. Further to this, it showed that information sharing and communication is important in every direction. In other words, the community being relocated should be adequately informed of all developments pertaining to their relocation, and the entity facilitating the relocation should be apprised of what is important and relevant to the community in order for the relocation to be appropriate and successful. The recommendations here are categorized by information for the community, information from the community, and enabling communication.

Information for the Community

11. Throughout every step of the relocation project, relocating individuals should be provided with accurate, understandable, up-to-date, and transparent information pertaining to their relocation.

As reflected throughout the literature, challenges stemming from lack of information sharing with communities experiencing relocation arose often. Such roadblocks ranged from lack of risk awareness, such as villagers in Vunidogoloa unaware that their receding shoreline was associated to climate change (Charan et al., 2017), to lack of relocation guidelines in the Mekong Delta, Vietnam, which resulted in confusion with regards to procedures and entitlements for relocating individuals (Chun, 2015). In contrast, McMichael et al. (2019) demonstrated that in Narikoso, when the time was taken to educate villagers on climate change and the benefits of relocation, community members who were once reluctant to relocate finally accepted their reality and began participating actively in relocation efforts. As such, one of the first commitments that should be made by the entity facilitating the relocation is to develop a contextually-appropriate information sharing strategy with the simple goal of keeping all stakeholders – especially the community impacted by relocation, informed.

With regards to transparency, the literature confirmed that relocation can cause significant hardship in the lives of those being relocated (Charan et al., 2017; Connell & Coelho, 2018; Maldonado, 2014). Even in instances where relocation is inevitable, the reality of these potential hardships should be communicated thoroughly. If the ultimate goal is to empower communities to make informed decisions pertaining to their own relocation, all information, including information on the unfortunate realities associated with relocation, is to be communicated.

The literature review also showed that there are many instances where communities felt adequately consulted up until the decision to relocate was made, only to be excluded from further developments. For example, Edwards (2013) reported that in the relocation of the Carteret Islands, Papua New Guinea, individuals were consulted early in the process, before being left largely uninformed of further developments, leading to feelings of abandonment and frustration among community members. Bertana (2019) discussed a similar situation, where in Narikoso, community members became frustrated with the lack of information and started to doubt whether relocation was going to take place at all. In order to keep communities empowered, committed to relocation, and to maintain a healthy relationship between stakeholders, communities need to remain informed. This can be easily achieved by holding regularly scheduled information sharing meetings or newsletters, and by maintaining open lines of communication.

Information from the Community

12. Traditional and cultural knowledge and adaptation strategies should be leveraged throughout the relocation project.

Information sharing between the entity facilitating the relocation and the community being relocated should be bi-directional. Further to this, it is of utmost importance to take the

local context of the community being relocated into account (Bertana, 2019). This is at least in part due to the fact that traditional knowledge is a rich inheritance that has contributed vastly to the long-term survival of many communities (Edwards, 2013; Maldonado et al., 2013). Further reinforcing the point that community-based knowledge is primordial to successful relocation outcomes, Lin and Lin (2020) argued that “appealing to a relocated tribe’s culture, not their land, as their community’s foundation could reduce conflicts within the community and increase social resilience” (p.1).

Based on this, the benefits of understanding and leveraging traditional knowledge systems where applicable are twofold. First, the community to be relocated is likely to have a more in-depth understanding of their environment than the outside stakeholder facilitating their relocation. Having an understanding of how the relocating community interacts with their environment will prove useful for making collaborative decisions aimed at maximizing the chances for success following relocation. Second, and as argued by Lin and Lin (2020), culture – as opposed to location, may serve as somewhat of an anchor for promoting positive relationships and resilience outcomes. For this reason, time should be spent with the community to ensure that all involved have at least a working understanding of how a community survives in order to determine how it can thrive.

Enabling Communication

13. Open lines of communication should be established and maintained early in the relocation process.

Access to information is important to empower communities to make meaningful decisions pertaining to their relocation, as well as to enable communities to remain trusting of external partners and committed to relocation. Therefore, every effort should be made to avoid

scenarios where communities are ill-informed on matters pertaining to their relocation, such as in the Carteret Islands, where lack of information from the government, albeit associated with a desire not to raise expectations, led to community members becoming “disgruntled and distrustful” (Edwards, 2013, p.75). In order to avoid this type of scenario, a point of contact within the entity facilitating the relocation should be identified and provided to the community early in the process. In addition, it should be ensured that the community has adequate means to communicate with this point of contact.

This measure aims to ensure that the community has an opportunity to communicate with the entity facilitating their relocation outside of official communiqués and meetings. This will allow communities to ask questions, voice concerns, and have informal discussions on the subject of their relocation, ensuring that they remain adequately informed. This will also likely contribute to the working relationship between community and stakeholder, which as discussed as part of recommendation #8, is another important contributor to promoting positive social capital outcomes in the context of relocation.

14. In preparation for relocation, potential language or cultural barriers to effective communication should be identified and addressed.

Due to potential language and other cultural gaps, effective communication with relocating communities and keeping them meaningfully involved in decision making processes can sometimes prove to be challenging (Bitoune, 2014). To provide an example that puts this into context, there are 522 documented languages in the islands that makeup Polynesia, Micronesia, and Melanesia (Hammarström et al., 2020). Given that small pacific islands are at particular risk for the impacts of climate change and associated coastal erosion (Kumar et al., 2018), it becomes obvious that language and cultural barriers can pose significant challenges to

maintaining a collaborative approach during future relocation projects. Based on this, those in charge of relocation should aim to identify and appoint an individual – preferably from the impacted community, to play a liaison role between the community and other stakeholders. Here, I am purposely avoiding the use of the word translator, because the role of this individual or group of individuals would extend beyond simple translation duties. Instead, the liaison’s role would be to ensure that stakeholders understand not only the surface-level communication, but also the traditional and cultural considerations in place for a given community in their interactions with them.

Social Cohesion and Inclusion

With regards to social cohesion and inclusion, the literature review showed three broad conclusions. First, decisions surrounding relocation can be contentious and cause divisiveness within communities. Second, there are cases where not all community members have the opportunity to be heard equally and participate meaningfully in decision-making. Third, thorough deliberation takes time. The recommendations here are geared towards leveraging the relocation project itself to create opportunities for increasing social cohesion and inclusion, and ensuring thorough and adequate deliberation.

Leveraging Relocation to Increase Social Cohesion and Inclusion

- 15. The relocation project itself should be leveraged to generate opportunities to further develop interpersonal support and collaboration skills.*

The literature on relocation has shown that relocation can lead to both the strengthening of community relationships in some instances, and the erosion of community relationships in others. This is based on factors such as pre-existing skills in this regard and the level of equal opportunities for community members to voice their opinions and participate meaningfully

(Chun, 2015; Correa & Gonzales, 2000; Ha'apio et al., 2018; Lin & Lin, 2020; Piggott-McKellar et al., 2019; Yang, 2014). Consistent in the reviewed literature, is that relocation projects provide extensive opportunities for community members to interact and collaborate with each other. This, in combination with the unfortunate reality that relocation is a significant source of stress which can potentially result in hardships for at least a portion of the community, presents relocating communities with a unique opportunity to develop and strengthen their social capital. In this regard, relocation will generate opportunities for communities to include each other in decision-making processes, work together towards goals, and to support each other as they adapt to the changes brought on by relocation. Based on this, this simple assumption can be made: if communities leverage the opportunities to help, support, and include each other, the potential for increasing the sense of social cohesion and inclusion within the community, and more broadly, social capital can be maximized. This is well demonstrated by Yang (2014), who reported that in Wan Sheng, the community stated they felt closer to each other even after losing income and having to experience significant lifestyle changes. This is attributed to the fact that “with the rigid disposal of income and financial capitals, some villagers attach higher reliance and expectation for financial and physical help from other villagers” (Yang, 2014, p.60). As such, relocating communities should be made aware of this fact from the start and encouraged to pursue opportunities to provide support to each other.

Ensuring Thorough and Adequate Deliberation

16. Communities should strive to ensure adequate representation of all community members throughout every step of the relocation process.

As argued by Edwards (2013), “the notion of belonging is a key consideration in any resettlement process and one that may determine the success or otherwise of any scheme”

(p.102). In line with this statement, Perry and Lindell (1997) discussed the importance of paying special attention to the social and personal needs of individuals going through the relocation process. That said, even in cases where communities as a whole are empowered to participate in the decision-making process surrounding their relocation, there are instances where some demographics – typically traditionally marginalized demographics such as women, do not have the opportunity to participate as meaningfully as other members of their community (Campbell et al., 2005; Ha’apio et al., 2018). In these instances, how can the notion of belonging be achieved, and how can special attention be given to social and personal needs, if these under-represented demographics have no means to voice them?

As it would be challenging for external stakeholders to heavily influence this outcome, it falls on the community leadership to devise ways in which all members of their community can have an opportunity to participate in the development of a new community setting that meets their needs. This has been achieved successfully in a few instances, often enabled through the existence of well-functioning community organizations. This was the case for the Zhulu, who worked together to develop Indigenous culture-based tourism in their new site as a source of livelihoods (Lin & Lin, 2020), and in Allenville, AZ, United States, where the community was able to leverage a pre-existing community organization specifically designed to facilitate the participation of all community members (Perry & Lindell, 1997). This recommendation revolves around ensuring that community leadership understands the importance of social cohesion and inclusion in promoting positive psychosocial outcomes in the context of relocation, recommending ways in which this can be achieved, and making support such as training or help with facilitation of community organizations available throughout the relocation project.

17. Throughout the relocation project, sufficient time should be allotted for thorough deliberation.

Even where participatory decision-making is a pre-existing strength, discussions that pertain to relocation have been known to be sensitive and have the potential to result in tensions and divisiveness within communities (Nichols, 2019). This is quite understandable, given that many “collectively view the process of relocation as agonizing, poignant, and one that is robbing them of their communal identity” (Charan et al., 2017, p.24). As contended by McMichael et al. (2019) and by Charan et al. (2017) it takes time to generate an understanding of the hazard causing the requirement for relocation, as well as for developing consensus on matters related to relocation – including whether to relocate at all.

Ultimately, there is no denying that relocation is a challenging event for individuals and communities. It is a sensitive matter, and it should therefore be treated as such. Throughout every step of the relocation, it is important that communities are given the time to first come to terms with the reality that they must relocate and the challenges they are likely to face in this context, and to make decisions surrounding their relocation as a community, which includes the opportunity for all community members to be heard and all potential options to be considered.

Empowerment and Political Action

Empowerment and political action can be significantly impacted by relocation. First and foremost, community empowerment to control decisions related to their relocation is particularly relevant in this matter, from both the community’s collective perspective as well as from the perspectives of individual community members. This promotes a sense of empowerment in and of itself, as well as a sense of agency, which has been shown to increase resilience and livelihood outcomes (Cronin & Guthrie, 2011; Dannenberg et al., 2019; McMichael et al., 2019).

Furthermore, it has been widely demonstrated that relocation can have a significant impact on the well-being of relocated individuals. Based on this, the recommendations in this section focus on enabling the empowerment of communities both in the context of their relocation and in their new settlement, and on addressing potential issues with regards to the impacts of relocation on well-being.

Enabling Empowerment

18. From the onset of the project, all stakeholders should share a common understanding that a community-driven approach is vital in ensuring positive outcomes following relocation.

As extensively outlined in the literature review, one of the most important concepts in ensuring success in the context of relocation lies upon adequate representation of community voices throughout every step of the process. Effectively, relocation projects have been known to be much more successful when the input and participation of communities are integrated, when the projects stray from top-down bureaucratic approaches, and when communities have a sense of ownership in the process (Campbell et al., 2005; Maldonado et al., 2013, Waldram, 1987). The growing body of evidence on relocation consistently points to the fact that community empowerment is not only important, but is crucial to securing positive outcomes following relocation. This evidence should therefore be used to generate a common understanding among all stakeholders that communities should be at the center of their relocation, while the role of external stakeholders is to support communities in their relocation wherever necessary.

Well-Being

19. Prior to, during, and following relocation, support focused on achieving self-sustainability should be offered to communities for as long as necessary.

With relevance to adaptation in new locations, Connell and Coelho (2018) reported issues with regards to re-establishing livelihoods, access to services, disruption to education, as well as the fact that “loss of connection to land, cultural identity, and indigenous knowledge is also a reality for people moving away from ancestral lands” (pp. 46-47). This is also reflected in the fact that as previously discussed, relocating individuals sometimes have challenges re-establishing livelihoods not because of lack of opportunities, but because of lack of education and knowledge required to pursue the opportunities that exist in their new location (Ha’apio et al., 2018). Based on this, focus should be placed on offering community support as it relates to both preparing for the new site, as well as in the context of their adaptation following relocation.

As explained throughout this paper, these types of investments can be in the form of training focused on enabling community members to access livelihoods at the new site, or the promotion of relational conflict resolution and collaborative working skills, among others. Such investments may also offer temporary financial support until relocated individuals generate sufficient momentum to achieve self-sustenance. That said, a balance with regards to this needs to be maintained because as argued by McMichael et al. (2019), everyday agency is of particular importance in promoting adaptive capacity. Therefore, support to communities should be provided, but it should focus on leveraging personal agency and adaptability with the intention of encouraging relocated individuals and communities to become self-sustaining.

20. Following relocation, progress pertaining to how the community is adapting to their new environment should be closely monitored.

In discussing relocation, Piggott-McKellar et al. (2019) explained that “unforeseen outcomes, even with appropriate planning and forethought, would not be unexpected when implementing such large-scale adaptation interventions” (p.13), and recommended long term

monitoring and evaluation as well as the implementation of formal mechanisms to facilitate the communication of concerns or issues related to relocation. Though Piggott-McKellar et al.'s (2019) recommendations focused more on infrastructure issues, in a situation where entire communities are relocating to a new environment with potential new livelihoods, loss of traditional lands, cultural disarticulation, and potential associated psychological trauma and grief, it can be expected that the aforementioned unforeseen outcomes are going to extend to social capital considerations. Therefore, following relocation, the state of social capital in relocated communities should be monitored in order to serve as a baseline for course correction at the new site. This can be done through periodic follow-up interactions with the community with the intention of assessing how the community is faring through the six dimensions outlined in the SC-IQ.

21. Following relocation, communities should strive to resume cultural and spiritual activities as quickly as possible.

As argued by Lin and Lin (2020) “culture is as important as economic rehabilitation in disaster-resistant recovery. It serves as a force to gather tribe members, to stabilize social networks, and to enhance resistance to external disturbances” (p.14). This is reflected consistently throughout the literature. For instance, Abe and Shaw (2014) reported that following the relocation of Kotaka, the resumption of cultural events such as a sports festival and traditional dancing served as a catalyst for bonding within the community. In line with this, Charan et al. (2017) cited a village representative in Vunidogoloa who stated that in order for relocation to be successful, individuals should be moved along with their church, as well as their faith.

In the context of relocation, which can clearly have significant impacts on relationships, culture, spirituality, and traditional values, the disruption of culturally relevant activities should be minimized, if not avoided. It is understandable that during a project of this magnitude, in addition to the sense of loss and grief that may be associated with relocation, these types of activities may not be at the forefront of relocating communities' thoughts. With that said, however, the literature clearly demonstrated that these activities significantly influence the wellbeing of relocated community members. As such, making time for these types of activities both throughout the relocation process, and as promptly as possible once relocation has occurred has the potential to be a significant contributor to positive psychosocial outcomes – including in terms of social capital.

Governance

22. Early in the process, a governance structure which outlines the roles and responsibilities of all stakeholders should be created.

Relocation is a large-scale and complex endeavour. As demonstrated throughout this research, successful relocation projects require the engagement of an extensive number of stakeholders ranging from individual community members to government and non-government organizations. For instance, McMichael et al. (2019) explained that in the relocation of low-lying and coastal villages in Fiji, decisions are made through engagement with individuals, households, communities, community leadership, provincial councils, the office of the Prime Minister, several government ministries, as well as external and international donors and organizations. When taking this into consideration, it is easy to assume that communities – especially smaller Indigenous communities who may tend to keep to themselves, could easily become overwhelmed by the sheer number of stakeholders involved in their relocation.

To ensure that communities are adequately informed, empowered, trusting of external entities, and able to develop working relationships which enable them to participate meaningfully in their relocation, they must first possess a basic understanding of the roles and responsibilities of partnering stakeholders. It has already been established that communities need to be at the center of their own relocation. In order to do so, however, communities must have an understanding of *who does what*. Beyond the relocating community, having the same understanding will also prove to be useful for any and all stakeholders involved. As such, a governance structure should be determined early in the process, and documentation that outlines involved stakeholders and their respective roles and responsibilities should be distributed among all stakeholders in order to avoid any confusion related to who is involved, and how they are responsible for supporting the community in their relocation.

23. In preparation for relocation, the potential implication of a non-government organization specializing in the matter should be considered.

NGOs can and have played important roles in past relocation projects. They can bring subject matter expertise, contribute to mobilizing community efforts, and help advocate for relocating communities in their interactions with government (Cronin & Guthrie, 2011). NGOs can also be of help for smaller governments in their endeavours to secure funding from international partners (Bertana, 2019), and on a broader scale, they can help with the development of frameworks and best practices that guide relocation projects (Doberstein & Tadgell, 2015). In smaller nations and smaller communities especially, NGOs with experience and expertise in matters related to relocation can be an important asset in both providing guidance to all stakeholders and facilitating the sometimes-strained relationship between a

relocating community and their government. As such, when relocation is being considered, engaging an NGO is an option that should be explored.

Chapter 6: Discussion and Recommendations

From Research to Practice

Remaining in line with the transformative worldview that forms the basis of this research, the purpose of this section is to provide a mechanism for applying its findings in a real-world context. As such, I am proposing a framework that relies on the findings that suggest that the impacts of relocation on the various dimensions of social capital are heavily influenced by their pre-existing condition, and that social capital is an emergent property borne out of the interactions between them. The guiding principles for this framework are that pre-existing strengths are less likely to be disrupted and may possibly even be strengthened in the context of relocation, that pre-existing weaknesses are more likely to be exacerbated, that social capital's various dimensions have a significant impact on each other, and that success in this regard seems to revolve around creating positive momentum across as many of these dimensions as possible and on identifying and controlling negative momentum. Based on these hypotheses, this framework seeks to understand the baseline social capital in the community to be relocated, and to leverage pre-existing strengths and address weaknesses in this regard in order to promote positive social capital outcomes in the context of relocation.

Measuring Baseline Social Capital

The first principle of this framework aims to better understand social capital in the community to be relocated in order to assess its pre-existing condition, the amount of effort required in this domain, and the areas on which focus should be placed. Here, the instrument provided in the SC-IQ should be used. That said, it is important to recognize that even though the SC-IQ is widely used and accepted, it will without exception need to be adapted to the context in which it is being employed (Grootaert et al., 2004). For the purposes associated to this research,

the survey should be adapted based on the community being surveyed and its specific use in attempting to preserve or increase social capital in the context of relocation.

Grootaert et al. (2004) explained that adapting the survey is a three-step process. The first step involves a general review of the questionnaire to assess whether it is appropriate for the purpose for which it is being used, whether it is relevant to the local context, and to adapt it to the local language. The second step is to establish and train a survey team to “adopt a similar protocol for (a) selecting households (and household respondents), (b) taking respondents through the inventory of questions, (c) filling out the survey, (d) responding to any substantive or procedural questions, and (e) clarifying (known) ambiguities” (p.8). Finally, Grootaert et al. (2004) recommended that a pilot study geared towards assessing all aspects of data collection should be conducted before moving forward with this initiative on a broader scale.

As argued above, gaining a better understanding of the baseline social capital in the relocating community will serve as a starting point for understanding its pre-existing state across the six SC-IQ dimensions and identifying the areas in which efforts on this matter should be invested. Though this requires a significant amount of effort, its importance cannot be understated. As always, the community being relocated should be heavily involved in this process, and a high participation rate which includes as much diversity as possible should be sought in order to ensure that enough data is collected to reliably represent the state of social capital within the community. For this, community leadership will play a key role, as it can exert a significant influence on participation rates as well as the effective dissemination of information to community members.

Leveraging Strengths and Addressing Areas for Improvement

It has been widely demonstrated throughout this research project that the various dimensions of social capital do not operate independently. Instead, they are part of a complex system and exert a significant influence on each other. For instance, though we can attribute the importance for community members to have the ability to participate meaningfully in decisions surrounding their relocation to the *empowerment and political action* dimension of social capital, it would be impossible for them to do so without having the proper knowledge and information, which is clearly enabled through the *information and communication* dimension. Similar arguments could be made for virtually any and all dimensions of social capital. The point to be made here, however, is that once an understanding of pre-existing social capital across the six dimensions outlined in the SC-IQ has been established, the relocating community and other relevant stakeholders will be better positioned to maximize the potential for preserving or increasing social capital by being able to implement and prioritize measures specifically applicable to the community at hand.

To serve as an example, if we imagine a community with poor participation rates in community-driven efforts such as fundraising or other volunteering opportunities, we can determine and point to a weakness in the *collective action and cooperation* dimension of social capital. With regards to other dimensions of social capital, however, this community may have a strong basis with regards to *groups and networks* through social activities such as sports and recreation leagues, book clubs, or other formal and informal organizations. These groups can also contribute to a strong sense of *trust and solidarity*, promote *social inclusion and cohesion*, and show potential for facilitating *information sharing and communication*. In this context, if aiming to increase the quality of collective action and cooperation, these groups could be

leveraged for sharing information on the importance of collective action and cooperation and serve as platforms for facilitating related activities.

Indeed, this thesis provides recommendations for preserving or increasing the sense of collective action and cooperation in communities in the context of relocation by ensuring opportunities throughout and working on developing collaborative working and communication skills. But the importance of this framework revolves around *how* these recommendations can be effectively implemented. In short, the second principle of this framework is simple: using the baseline social capital in the relocating community, specific dimensions which need to be improved and others which can be leveraged can be identified, and measures tailored to the situation at hand can be developed and implemented.

Promoting Positive Social Capital Outcomes

The third principle revolves around promoting positive social capital outcomes throughout the entire relocation process and beyond. This can be done by leveraging the findings from this research as well as the opportunities presented within the project to create positive momentum across as many of the dimensions of social capital as possible, and by identifying and addressing areas where negative impacts and momentum may exist. Examples of these opportunities for positive development – and their negative counterparts, have been discussed at length throughout this work. Here, it is worth reiterating that the potential for these impacts exists in preparation for, in the context of, and following relocation, and that the measures to address them are likely to require repetition, maintenance, or adaptation as the project and its potential cumulative and unforeseen impacts unfold.

This research has also demonstrated that the relocation process itself can impact social capital, and that these impacts can continue long after relocation has taken place. Therefore, it is

important that stakeholders remain vigilant of community dynamics throughout in order to regularly identify opportunities to continue to increase social capital, or to minimize potential negative impacts to it. Prior to relocation, this can be done by assessing baseline social capital and pre-emptively working to strengthen it as per the first two steps of this framework. During relocation, this can be done by holding regular meetings geared towards having open discussions with community members and leadership in order to gain their perspectives on how the project is progressing and how they are interacting with each other in this context. Following relocation, the open lines of communication that were hopefully developed early in the process as per recommendation #13 should be maintained for as long as necessary, and support should be continuously offered as per recommendation #19. Here, social capital in the relocated community should be reassessed at pre-determined intervals such as immediately following relocation and one year after, in order to compare the state of social capital with the baseline from prior to relocation, and to identify how it is trending following relocation.

Recommendations for Future Research

There are a number of ways in which this subject can be further developed. For the purpose of this section, I will be discussing three broad areas of potential future research. The first pertains to research meant to challenge and further specify the conclusions reached through this project, the second is geared towards painting a more holistic picture of the psychosocial impacts of relocation, and the third focuses on identifying areas of overlap between different fields that address the issue of psychosocial outcomes in the context of relocation.

The recommendation for research that challenges and further specifies the theories developed during this project is rooted in the fact that as previously explained, this project drew on articles pertaining to relocation in general, and deductive reasoning was used to theorize on

the impacts of relocation on social capital. In order to further test the validity of these findings, the starting point for future research could be to use the SC-IQ to measure social capital prior to, during, and following relocation. Using the quantitative data collected from this process in combination with a close examination of the specific context from which it was drawn could serve as a basis for validating or further elaborating upon the theories developed throughout this research, both in terms of the impacts of relocation on social capital and the actions recommended for preserving or increasing social capital in the context of relocation.

With regards to offering a more holistic understanding of the psychosocial impacts of relocation, it is important to reiterate once again that from a sustainable development perspective, social capital is but one of five types of capital. As such, the recommendation here is that future projects could adopt a similar approach than this one in order to explore the relationship between relocation and financial, natural, produced, and human capitals. The findings from these projects could then be merged to form a larger series of recommendations geared towards maximizing the potential for positive sustainable development outcomes in the context of relocation.

Finally, and as explained earlier in this paper, there are several fields currently exploring the impacts of planned relocation, and several frameworks and best practices that exist or are being developed. A particularly useful project would seek to examine and outline the existing research and frameworks from different fields on this matter, areas of overlap, as well as ways in which these fields can work together to promote more positive outcomes following relocation. Having a broad understanding of the efforts that have been made or are being made would increase the potential for improved collaboration, leveraging areas of expertise, and to help limit the duplication of efforts generated by these areas of overlap.

Chapter 7: Conclusion

The purpose of this research project was to contribute to the body of literature on the psychosocial impacts of community relocation. More specifically, it examined the relationship between planned relocation as a disaster risk reduction measure and social capital, which can be generally understood as human relationships and the benefits resulting from them. This was achieved by conducting a qualitative review of existing literature on relocation, through the lens of the *Integrated Questionnaire for the Measurement of Social Capital (SC-IQ)* (Grootaert et al., 2004). The research itself had two primary goals, which were to better understand the relationship between relocation and social capital, and to develop a series of recommendations geared towards preserving or increasing social capital in the context of relocation.

For the first research goal, findings were drawn from examining the selected literature through the lens of the six dimensions outlined in the SC-IQ, which are: groups and networks; trust and solidarity; collective action and cooperation; information and communication; social cohesion and inclusion; and empowerment and political action. In addition to finding a series of ways in which each individual dimension can be impacted by relocation, this research also demonstrated that these dimensions are interconnected and can have a significant influence on each other. Further to this, it demonstrated that the pre-existing state of these dimensions can have a significant impact on their resilience in the face of relocation. For the second research goal, a chain-reasoning model of argumentation was employed to develop recommendations for preserving or increasing social capital through each of the six dimensions of the SC-IQ.

Following this, a three-principle framework for applying the findings from this research in a real-world setting was outlined. Those three principles revolve around using the SC-IQ to assess baseline social capital in communities preparing for relocation in order to identify

dimensions of focus, using the interconnectedness between these dimensions in order to leverage strengths to improve weaknesses, and promoting positive social capital outcomes in the context of relocation. Finally, recommendations for future research were provided. These recommendations were categorized into three broad areas of focus, which aim to challenge and further specify the conclusions reached through this project, to paint a more holistic picture of the psychosocial impacts of relocation, and to identify areas of overlap between different fields that address the issue of psychosocial outcomes in the context of relocation.

If anything, this project served to further confirm that community relocation is a complex, disruptive, and unfortunately often devastating effort. However, it also demonstrated that within relocation, there is opportunity to not only mitigate the negative impacts of relocation on social capital, but to leverage relocation in order to potentially strengthen and improve social capital. Given the amount of research being conducted on this matter, and the number of organizations and governments being forced to gain extensive experience in this field, it is reasonable to expect that future relocation efforts will be made stronger by the increased consideration of social capital and other sustainable development principles, and to hope that subsequent outcomes will be fortified with this knowledge.

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Appendix A – Article Categorization Table

Category 1: Planned, independent, whole of community relocation as a disaster risk reduction measure			
Location	Reason for Relocation	Author(s)	Year Published
1. Narikoso, Fiji	Sea-Level Rise/Coastal Erosion/Flooding	Barnett & McMichael	2018
2. Narikoso, Fiji	Sea-Level Rise/Coastal Erosion/Flooding	Bertana	2019
3. Newtok, Alaska	Coastal Erosion	Bitoune	2014
4. Pacific Island Countries – General	Sea-Level Rise/Coastal Erosion/Flooding	Campbell et al.	2005
5. Vunidogoloa, Fiji	Sea-Level Rise/Coastal Erosion/Flooding	Charan et al.	2017
6. Mekong Delta, Vietnam	Flooding	Chun	2014
7. Asia and the Pacific - General	Climate-Related/Sea-Level Rise/Coastal Erosion	Connell & Coelho	2018
8. El Choncho, Colombia	Coastal Erosion	Correa & Gonzalez	2000
9. Pune, India	Flooding	Cronin & Guthrie	2011
10. USA/Panama/Fiji/Papua New Guinea/Solomon Islands/Vanuatu	Climate Change/Sea-Level rise/Coastal Erosion	Dannenburg et al.	2019
11. Carteret Islands, Papua New Guinea	Sea-Level Rise/Coastal Erosion/Flooding	Edwards	2013
12. East Honiara, Solomon Islands	Flooding	Ha’apio et al.	2018
13. Louisiana, USA Tribal Communities (3)	Environmental/Technological Disasters/Climate Change	Maldonado	2014
14. US Tribal Communities	Climate Change/Sea-Level Rise/Land Erosion/Permafrost Thaw	Maldonado et al.	2013
15. Shishmaref, AK, USA	Sea-Level Rise/Coastal Erosion	Marino	2012

16. Vunidogoloa, Vunisavisavi, and Narikoso, Fiji	Sea-Level Rise/Coastal Erosion/Flooding	McMichael et al.	2019
17. Vunidogoloa, Fiji	Sea-Level Rise/Coastal Erosion/Flooding	McNamara & Des Combes	2015
18. Nabukadra and Navuniivi, Fiji	Sea-Level Rise/Coastal Erosion/Flooding	Nichols	2019
19. Allenville, AZ, USA	Flooding	Perry & Lindell	1997
20. Denimanu and Vunidogoloa, Fiji	Sea-Level Rise/Coastal Erosion/Flooding	Piggott-McKellar et al.	2019

Category 2: Articles on relocation that only partially meet the criteria outlined in category one

1. Zhulu Tribal Community, Taiwan	Typhoon (Unplanned Relocation)	Lin & Lin	2020
2. Royal Chitwan National Park, Nepal	Development (not Disaster Risk Reduction)	McLean	1999
3. Kotaka, Japan	Earthquake (unplanned resettlement before permanent relocation occurred)	Abe & Shaw	2014
4. Worldwide – General	Review of relocation literature	Petz	2015
5. Wan Sheng, Inner Mongolia, China	Environmental and poverty-related Resettlement (not Disaster Risk Reduction exclusively)	Rogers & Wang	2006
6. Canadian Subarctic Indigenous Communities	Development – (not Disaster Risk Reduction)	Waldram	1987
7. Inner Mongolia, China	Environmental and poverty-related Resettlement (not Disaster Risk Reduction exclusively)	Yang	2014
