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'Land blong iumi'

The rise of Solomon Island Women combating unsustainable logging practices and fostering environmental protection

By

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Abstract

This research examines the significant role of a group of self-appointed women rangers (Iqwa Women Rangers, IWR) in Iqwa, Malaita, Solomon Islands, in addressing the detrimental impacts of unsustainable logging practices. Key to their success in promoting environmental protection was their transition from a grassroots informal environmental movement to a formalised community-based organisation named the Leileigela Conservation Group (LCG). The study aims to understand how this women-led initiative challenged traditional gender norms and roles, engaged male allyship, and fostered community resilience. By employing qualitative research methods, primarily *'Tok stori'* and observational and reflective techniques, the research provides an in-depth look at the dynamics of women's empowerment and leadership in environmental protection, in the face of economic, social, cultural, psychological and political challenges.

The research findings reveal that the pressure exerted by the IWR/LCG led to the cessation of harmful logging operations in a major area of customary/tribal land surrounding Iqwa, and the exploration of alternative livelihood options. This shift not only halted environmental degradation but also promoted sustainable economic activities, enhancing community resilience. Significantly, the inclusion of male rangers and community-wide support further amplified the movement's impact, showcasing a powerful model of collective environmental guardianship.

These research findings are significant as they highlight the transformative power of gender-inclusive and community-led conservation efforts, whilst demonstrating that women's leadership and empowerment plays a crucial role in promoting sustainable development. Critically, a conservation-only approach is not feasible in cash-poor societies; people absolutely need to know there are alternative livelihood options as well. Furthermore, this research emphasises the importance of an integrated approach to environmental protection activities that incorporates a gender-sensitive lens, particularly in patriarchal societies to ensure equitable and effective conservation efforts. It is this approach that contributes to a broader understanding of how women's empowerment and environmental activism intersect to champion sustainable development.

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Tagio tumas,

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List of Acronyms

ADB	Asian Development Bank
IMF	International Monetary Fund
IWR	Iqwa Women Rangers
LCG	Leileigela Conservation Group
MMGB	Mai Ma'asina Green Belt
MOFR	Ministry of Forestry and Research
NGO	Non-Governmental Organisation
NZ MFAT	New Zealand Ministry of Foreign Affairs and Trade
PICs	Pacific Island Countries
REDD+	Reducing Emissions from Deforestation and Forest Degradation in Developing Countries
SDGs	Sustainable Development Goals
SIDS	Small Island Developing States
SIG	Solomon Islands Government
SPREP	Secretariat of the Pacific Regional Environment Program
TNC	The Nature Conservancy
UN	United Nations
UNDP	United Nations Development Program
UNESCAP	United Nations Economic and Social Commission for Asia and the Pacific
WWC	Wildlife Works Carbon

Glossary of Dorio Terms

Dorio language, also referred to as Kwarekwareo, is the dialect most widely spoken by the people of Iqwa, and as referred to by Keesing (1975) and Akin (2013) is a blend of Kwaio and Are'Are languages. As there is no complete published Dorio language dictionary* the translations below were retrieved from Keesing's (1975) Kwaio dictionary and then verified by Iqwa community members/fluent Dorio speakers.

<i>abu</i>	blood
<i>ai / aihi</i>	tree / trees
<i>ano ni abuna</i>	ritually important land
<i>atobaabala</i>	challenge head on
<i>babala'usia</i>	protect from
<i>dau nasi ai</i>	hold strongly to a course of action, persevere, insist
<i>fou</i>	stone
<i>fu'a / fu'ahi</i>	land / lands
<i>futa tala ana</i>	be related to by kinship
<i>geni / genihi</i>	woman / women
<i>go 'ofi 'aita 'aa</i>	hard working, self sacrificing, long suffering
<i>kafu</i>	water
<i>kwaena</i>	virgin rainforest
<i>ma'usu / ma'usuhi</i>	forest / forests
<i>malutana adalo</i>	the way of the ancestors
<i>malutana wado</i>	the proper ways regarding the land
<i>mama'a</i>	father
<i>tabona adalo</i>	ritual purification, compensation to ancestors
<i>tete'e</i>	mother
<i>wado</i>	ground/earth
<i>wane / wanehi</i>	man / men

Source: Akin (2013) and Keesing (1975).

**The production of an official Dorio language is an initiative that some members of the Iqwa community are working towards, as a form of cultural preservation and rejuvenation.

Glossary of Solomon Island Pijin Terms

<i>blong</i>	ownership - belonging	<i>blong iufala</i>	yours (plural)
<i>blong mifala</i>	ours (excl. person spoken to)	<i>blong mi</i>	mine (belonging to me)
<i>compensation</i>	related to kastom and tabu. If any of these rules are broken, it is a common practice that a monetary amount will be demanded or negotiated as a form of reparation and a sign of respect of the kastom and tabu's. It in some instances serves as a conflict resolution tool. Varies region to region but is a strong practice in Malaitan cultures.		
<i>haos gele</i>	domestic worker (female role) / house and girl		
<i>hem</i>	him, her, it	<i>hem seleva</i>	him/her/itself
<i>iu</i>	you, singular.	<i>iufala</i>	you, plural (group)
<i>iumi</i>	collective, us, ours, you, and I	<i>iuseleva</i>	yourself
<i>kakai</i>	food		
<i>kastom</i>	<ul style="list-style-type: none"> • Shared culture, values, and traditions. But also relates to contemporary ideas and institutions perceived to be grounded in indigenous concepts and principles. In context, Kastom is not synonymous with the Western 'custom' or 'culture' as the term is used in English but is typically conceived as Melanesian ways from pre contact period. • Matters related to social and cultural relationships based on constructs of land and bloodlines (including kinship, clan, residence, and language wan tok). Cultural traditions are continuously in interaction with each other and modern ways. Kastom varies from within and between provinces, but one IWDA study represents the common belief that Malaita is the province that most strongly adheres to kastom, which can have flow on effects on gender equity. (Batalibasi et al. 2019, p. 34). 		
<i>kwaso</i>	illegal home brew, alcoholic beverage		

Glossary of Solomon Island Pijin Terms

<i>mifala</i>	we, us	<i>miseleva</i>	myself
<i>olketa</i>	they/them or plurality	<i>olketa seleva</i>	themselves
<i>pikinini</i>	children		
<i>selen</i>	money		
<i>stap</i>	exist, stay, stop, halt, remain		
<i>tabu</i>	<ul style="list-style-type: none"> • Sacred or taboo, can refer to locations, interactions and behaviours being considered taboo. • Concept of tabu as employed by the Kwara'ae people of Malaita, shows how tabu not only governs relationships between ancestor spirits and men by opposing them to defiling relationships with women, but also forms a governing principle of all relationships in Kwara'ae society. Ultimately tabu appears to be a means of mediating relationships of power among both the living and the dead, and this is the source of its religious and cosmological significance. (Burt, 1988) 		
<i>wantok /</i>	Direct translation one and talk or one language.		
<i>wantok system</i>	The set of relationships (or a set of obligations) between individuals characterised by some or all the following: common language, (wantok = one talk), common kinship group, common geographical area of origin, common social associations or religious groups, and common belief in the principle of mutual reciprocity (Renzio, 2000, p.21)		
whiteman	Non-Solomon Islander, foreigner, typically Caucasian		
wok/waka	job, employment or work		

Sources: Burt (1988), Batalibasi et al. (2019), Regional Assistance Mission to Solomon Islands RAMSI (2011) and Renzio (2000).

Unless stated otherwise each translation was retrieved from RAMSI (2011)

Chapter 1 - Introduction and Background

1.1 Personal Connection and Positionality

This section will explore my positionality and personal connection to the research in tandem. Regarding my personal connection to the research location, my father (*mama'a*) is a Solomon Islander from Malaita, and my mother (*tete'e*) is Pākehā. I grew up in the Solomons until the age of 4, and then resided in Aotearoa from then on, only visiting occasionally during school holidays. Despite the limited time spent in the Solomons, strong memories remain of my grandmothers, aunties and cousin sisters. As such, when embarking on this degree, I was adamant that I would conduct my research in Iqwa, my father's village, exploring a women-centred issue and/or themes of female empowerment. I knew my research topic was set after my sister told me about a group of female family members in Iqwa had formed an informal group of women rangers to protect the surrounding forests from logging companies; she further directed me to an article by John Beck and Monique Jaques from 2020 (after their visit in September 2019) who reported on how these self-appointed rangers mobilised to protect their forest lands.

Iqwa is a village in Malaita where my father was raised along with his brothers and sisters, and where the majority of my paternal family members and more distant relatives live. Here they practice a predominantly subsistence based lifestyle, deriving their livelihoods from their own land, (*fu'ahi*) sea, (*asi*) and labour. Therefore, I had a familial connection/kinship relation (*futa tala ana*) to all of my research participants, bar one. This relation came with a considerable responsibility to ensure my data collection methods are robust, respectful and did not cause any unforeseen harm or offence to anyone, and that my research findings best represent them, and the insights they generously shared with me.

Before arriving in Iqwa, I came across a quote from Fijian academic Litea Meo-Sewabu:

“As an Indigenous researcher, I am never an individual but always part of a collective” (as cited in Stewart-Withers et al. 2014, p.73)

It was not until I returned from Iqwa that the statement deeply resonated with me, and I had the realisation that this was the perfect encapsulation of my time there. A key part of my

fieldwork was to spend three days in the bush, with the original self-appointed women rangers, Monica Ta'afuni and Florence Kwaina'ala, within Iqwa's tribal/customary land. It was here, for the first time, that I heard Monica and Florence describe the land as mine too, and they reiterated the importance of me spending time within 'our' ancestral land. This simple statement, '*land blong iumi*', translates to our land and validated for me that I was a part of the 'collective' and viewed as such. This interaction fostered a sense of belonging, as opposed to my fear of being viewed as an 'outsider', a researcher, observing. Sharing this anecdote, is to demonstrate a tangible example of positionality and reflexivity whilst in the field.

Furthermore, key to the research method and collection of robust and unbiased data, is the importance of critically and regularly examining my own positionality, and reflexivity, to assess the positives and negatives that come with having a family linkage and what potential conflicts of interest may arise as a result. Smith (1999) explores this concept in detail referring to the "inside-out/outside-in" (p.5) position for many Indigenous researchers. Smith (1999) summarises how "Insider research has to be as ethical and respectful, as reflexive, and critical, as outsider research. It also needs to be humble" (p. 139); which was an important directive to be cognisant of throughout the 'insider/outsider' dynamic of my research process.

As this research focuses on the unique experiences of Iqwa women, it was imperative that their narratives were approached with sensitivity and understanding. Expanding on this notion, Kishwar (2014) and DeVault (1999) discuss the complexity of feminist focused research. Kishwar (2014) underscores the danger of superimposing Western feminist ideals on contexts of the global South, like the Solomon Islands, whilst emphasising the importance of recognising and valuing Indigenous narratives.

My research stressed the importance of being reflexive and cognisant of my positionality, as a key consideration for undertaking fieldwork and more specifically the insider/outsider dynamic. This dynamic presents itself in various ways, not only from the typical researcher/participant viewpoint and the potential power disparities it brings (O'Leary, 2014), but also more personally, regarding the way in which I interpret this dichotomy from an ethnic and heritage perspective.

1.2 Rationale and Significance of the Study

The literature shows extensive research has been conducted by Eric Katovai et al. (2015), Ian Frazer (1997) and Tessa Minter (2021) on the detrimental environmental, economic, and social impacts of the logging industry and unsustainable logging practices in the Solomon Islands. Additionally, numerous studies and models on sustainable development worldwide, highlight the interdependence of the environmental, economic, and social pillars to combat multifaceted issues, such as illegal or unsustainable logging practices. Despite the substantial research on sustainable development and logging in the Solomon Islands, some gaps in the literature were identified, these being the limited research on Melanesian women's contributions to environmental movements and limited research also on the relationship between male allyship and women led environmental movements, particularly those set within traditionally patriarchal societies.

It is worth mentioning that during my research, I discovered The Nature Conservancy (TNC) (A Global Environmental NGO) had a longstanding and active presence in Melanesia, particularly in the Solomon Islands and Papua New Guinea. The TNC has partnered with local women leaders to implement a range of impactful and innovative initiatives that work towards achieving women's empowerment, gender equity and sustainable development, ranging from, marine wildlife conservation, to resistance to mining and logging activities through awareness programmes for women (two of which are discussed in Chapter 3). Despite TNC's activities and research, there is still a lack of recognition in the wider literature of the role of Melanesian women's contributions to environmental movements, and particularly at the grassroots level. But my research findings could potentially contribute to a wider body of work that has been built up by TNC and fosters a sense of pride and empowerment among local women, encouraging more to participate in environmental activism and promoting sustainable development at the grassroots level.

It is crucial at this point to highlight the origins of the self-appointed women rangers of Iqwa, in regard to how they, as an entity and their actions will be referred to throughout the upcoming chapters. At its inception the self-appointed women rangers did not assign themselves an official group name, or saw themselves as an official entity, but for ease of reference they will be referred to as the Iqwa Women Rangers (IWR), which is not a name they officially assigned

to their collective. However, in 2019, the group formalised and were named the Leileigela Conservation Group (LCG), which is the formal organisation the IWR evolved into in 2019 (see Chapter 5 for further detail). Therefore, when referring to the early actions of the self-appointed women rangers, IWR will be used, but, when referring to actions post 2019 and to current day IWR/LCG will be used.

This research addresses critical gaps in the literature by examining the roles of and actions in environmental guardianship, and the cultural and social norms that influence the efforts of grassroots environmental groups. Another way this research could be significant for local communities is how it highlights the importance of male allyship, which is crucial for advancing women's (*genihi*) environmental causes in patriarchal contexts. By showcasing the leadership and resilience of the self-appointed Iqwa Women Rangers, the study contributes to gender equality and women's empowerment, inspiring other women within the community to take a stand.

1.3 Research Aim and Questions

This research aims to explore the roles and actions of Malaitan women in environmental guardianship and to understand what cultural and social norms facilitated or acted as barriers to implementing environmental protection actions. This study focused on a women-led and initiated grassroots movement in Iqwa, Malaita, that combats harmful and unsustainable logging practices and promotes conservation.

The following research questions and objectives were applied to explore this aim, and will be answered within Chapters 5 and 6 across various sections:

Research Question 1: What were the Iqwa community members' perceptions on and responses to logging in Malaita?

Objective 1.1: Define the perceived impacts of logging practices for Iqwa people within their local context.

Objective 1.2: Consider whether there were gendered differences in their perceptions of the impacts of logging and their approaches to environmental protection.

Research Question 2: What factors enabled or presented challenges for Malaitan women in their efforts to combat unsustainable logging practices?

Objective 2.1: Understand what the self-appointed women rangers hoped to achieve through grassroots-driven activity and how they endeavoured to achieve this.

Objective 2.2: Analyse the gendered differences between approaches to environmental protection in response to unsustainable logging practices.

1.4 Chapter Overview

Chapter 1: Introduction and Background

This introductory chapter details my personal connection and positionality to and in relation to the research location of the Solomon Islands, and the research participants. In addition, a rationale on the significance of the research to the intersection of women's empowerment and sustainable development is explained.

Chapter 2: Sustainable Development and Logging in the Solomon Islands

This chapter reviews the literature on 'Sustainable development' and explores the unique barriers and solutions Pacific Island Countries (PICs) in achieving sustainable development. The chapter further contextualises the research field of the Solomon Islands, a Melanesian, PIC and provides a detailed history of the logging industry there, highlighting its economic importance and severe environmental and social impacts.

Chapter 3: Gender, Environmental Movements, and Empowerment

This chapter reviews the literature on theories of women's empowerment, focusing on Jo Rowlands (1997) model of power. This is followed by an exploration of global examples of women-led environmental movements and concludes with the introduction of the conceptual framework: The Empowerment and Sustainable Development (EASD) framework, (Scheyvens and van der Watt, 2021) that is central to this research.

Chapter 4: Methodology and Research Design

This chapter details the Qualitative research approach undertaken and explores the research design, process, and the different methodological and ethical considerations that were made, with an emphasis on the Pacific research principles. It also describes the methods utilised in the field, comprising semi-structured interviews, *'Tok stori'* sessions, and observational journal writing.

Chapter 5: Research Findings - The self-appointed women rangers of Iqwa and the Leileigela Conservation Group Case Study

The first research findings chapter's focus is on the small group of self-appointed women rangers of Iqwa and their eventual transition into the formal organisation of the Leileigela Conservation Group (LCG). This chapter navigates the IWR/LCG's origins to current day and provides a wider narrative of their context, ranging from customs, realities, and perceptions, whilst highlighting their achievements, and the role of male allyship and community support.

Chapter 6: Enabling and Disabling Conditions to the Activities of the self-appointed women rangers of Iqwa and the Leileigela Conservation Group

This second research findings chapter applies and adapts the EASD Framework to the self-appointed women rangers of Iqwa and the Leileigela Conservation Group's context and explores the most relevant enabling conditions and dimensions of empowerment. It discusses how customary practices, gender dynamics, and resource access enable or hinder their conservation efforts.

Chapter 7: Discussion and Conclusion - Empowering Change

This chapter summarises the research findings on women's roles in environmental movements, highlighting the self-appointed women rangers of Iqwa and the Leileigela Conservation Group's contributions to sustainable development and environmental conservation. It discusses the study's limitations and offers recommendations for future research, emphasising the importance of sustainable development initiatives having a gender inclusive lens or better yet gender conscious involvement. This chapter highlights how supporting women-led environmental initiatives and integrating Indigenous knowledge is critical for successful sustainable development.

Chapter 2 - Sustainable development, and logging in the Solomon Islands

2.1 Introduction

This chapter presents a contextual review of the literature on sustainable development and an overview of the history of logging the Solomon Islands, and how this industry has heavily impacted local livelihoods, and caused grave environmental destruction. This chapter first examines the origin and subsequent expansion of the complex idea of sustainable development, from its conception to the 2015 United Nations establishment of the Sustainable Development Goals (SDGs) that equally prioritise environmental, social, and economic sustainability. In addition to an analysis of the distinct elements that make implementing sustainable development in Pacific Island Countries (PICs) challenging is then presented using this knowledge of the concept. The emphasis then shifts to the Solomon Islands, with an analysis of the history of the logging industry there and the associated social, cultural, economic, and environmental impacts that hinder the achievement of sustainable development.

2.2 What is Sustainable development?

The 1987 Brundtland Report by the World Commission on Environment and Development (WCED, 1987) popularised the concept of “Sustainable development” and defined it as:

“Development that meets the needs of the present without compromising the ability of future generations to meet their own needs”(WCED, 1987, p. 41).

This was a pivotal concept at the time as it emphasised the interdependent nature of the dimensions of sustainable development, and it proposed a strategy that integrated environmental protection with economic and social development. This integrated approach would advocate for economic progress through sustainable policies and practices, but not at the cost of the environment and/or social inclusion.

A number of expansions and critiques of the initial definition of sustainable development have emerged in recent decades. Sen's (2013) critique advocates for a more freedom-oriented approach that focuses on capabilities as opposed to the 'needs' of current and future generations. Redclift (2014) argues the simplistic approach is "deceptive and obscures underlying complexities and contradictions" (p. 333) and argues for the consideration of 'consensus' and how different understandings of sustainable development can vary within and across specific cultural contexts. Furthermore, and relevant to the Solomon Islands context, Briggs (2014) highlights the value of the diverse forms of Indigenous knowledge in development and sustainable practices. Magni (2017) elaborates on this further by arguing that such knowledge is crucial for ensuring that development initiatives are culturally relevant in the local context whilst allowing communities to "maintain sustainable use and management of natural resources" (p 438). It is clear from these numerous critiques that when researching Indigenous groups, it is important to value culture as one of the key pillars of sustainable development.

The United Nations' Sustainable Development Goals (SDGs) represent a pivotal expansion of Sustainable Development as a concept, comprising 17 goals that demonstrate the interdependence of the environmental, economic, and social pillars and address global challenges such as climate change, poverty, and gender inequality with a target completion date of 2030 (United Nations, 2015). In 2017, Kate Raworth takes Sustainable Development in a new direction with the development of the "Doughnut Economics" model, and its 'Seven Key principles', one of which promotes for all to "be agnostic about growth". This model promotes a clear focus on a distributive and regenerative economy that strikes a balance within the bounds of ecological limits and social foundations. Raworth's transformative model lies in contrast with some of the mixed messages in the SDG's, in particular SDG 8 which promotes 'sustained, inclusive and sustainable economic growth' (2015). This representation of varying iterations of Sustainable Development aligns with Mensah's (2019) argument that the concept still seems unclear as many people continue to ask questions about its meaning and history, as well as what it entails for development theory and practice.

2.3 The challenge of achieving Sustainable development in Pacific Islands

Pacific Island Countries (PICs¹) (European Commission, n.d.) have a complex task in achieving sustainable development due to a variety of interrelated factors, in the context of the region's unique environmental, economic, and social structure. Many PICs fall into the category of a Small Island Developing State (SIDS), which the United Nations Development Programme (UNDP, 2021b) identify as vulnerable states within the Pacific, Caribbean, Atlantic Ocean, Indian Ocean, and South China Sea regions that are small in land area and population, have limited resources, and are geographically isolated. The UNDP (2021b) refers to how SIDS have been recognised as “a special case for sustainable development” (p.1) since the 1992 United Nations Conference on Environment and Development. The 2002 World Summit on Sustainable Development (WSSD) was particularly beneficial for SIDS, as it effectively put their sustainable development needs squarely on the agenda. However, since this time, barriers to sustainable development in PICs still exist and new solutions are being developed in the Pacific with INGOs such as UNDP and the Global Green Growth Institute (GGGI) to overcome them.

Barriers:

The United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP, 2017), the Pacific Islands Forum Secretariat (PIFS, 2018) and UNESCAP (2010) provide insights into some of the most prevalent barriers to sustainable development for PICs. These being: overextraction of natural resources, including oceans and fisheries; freshwater supply, waste, sea level rise, non-communicable diseases, vulnerability to more frequent shocks/ natural disasters, climate change and the list goes on. Furthermore, these environmental challenges are compounded by unique social and economic environments and geographic isolation that contribute to small economies that are often heavily reliant on precarious and highly volatile industries such as tourism, in addition to a growing reliance on remittance inflows (UNESCAP, 2010; Barnett and Campbell, 2010; World Bank, 2013; The Secretariat of the Pacific Regional Environment Programme, SPREP 2002). Sources of revenue such as these are highly susceptible to global market and environmental changes (UNDP, 2021b) and the Covid-19 pandemic highlighted the fragility of these economies, and the impact of global shocks on

¹ The 13 Pacific Islands Countries or 'PICs' (Cook Islands, Federated States of Micronesia, Fiji, Kiribati, Nauru, Niue, Palau, Republic of Marshall Islands, Samoa, Solomon Islands, Tonga, Tuvalu, Vanuatu (European Commission, n.d.)

tourism-dependent livelihoods, exacerbating the urgent need for economic diversification and resilience (Movono & Scheyvens, 2022).

UNESCAP (2017) discusses how the implementation of the Sustainable Development Goals (SDGs) is particularly challenging for PICs due to their intricate and interconnected nature. PIFS (2022) elaborate on this challenge by stating that PICs “are at the frontline of the adverse impacts of climate change”(p.8). Van der Vaeren (2024) reported that “despite contributing just 0.1% of global carbon emissions, the Pacific region faces escalating climate shocks” (para. 4) a statistic compounded by limited resources and capacities which make prioritising without neglecting certain goals a difficult task for small governments. Additionally, the need for regional and international support to align closely with national priorities, without causing overlap or distraction, further complicates the ability for PICs to achieve the 2030 Agenda.

Solutions

UNESCAP (2017) lists some social and economic solutions to best combat these challenges to sustainable development, namely: poverty reduction, reducing inequality, improving quality of education, improved connectivity and facilitating and enabling the empowerment of women, girls, and people with disabilities. Meanwhile, UNESCAP (2010) further contextualises the unique environmental and socio-economic challenges faced by PICs and Barnett and Campbell (2010) highlights that with this diversity across the different countries, a “one size fits all” (p. 21) approach will not suffice in achieving sustainable development within the Pacific and will require individualised adaptations. Additionally Barnett and Campbell’s (2010) solution is a departure from the existing international responses to climate change in the region as they argue are “insufficient and largely misdirected” and lack local involvement (p. 21). Since 2010, when this original suggestion was made, there are now many solutions underway that aim to address these concerns. The next section will explore some tangible examples.

The research shows that Nature based Solutions (NbS) are on the rise throughout the region (GGGI, 2023, SPREP, 2023). SPREP, (2023), discusses how nature based solutions are pivotal for sustainable development and involves using natural processes to address environmental and societal challenges, such as climate change and biodiversity loss, by protecting, managing, and restoring ecosystems, whilst incorporating social considerations.

An approach that aligns with Barnett and Campbell's (2010) view stated earlier, the use of nature based solutions are collaborative and inclusive, with multiple party engagement between the private sector, civil society, governments and most importantly, communities. SPREP (2023) listed a range of solutions that have been implemented in various PICs. Such as, coastal rehabilitation and resilience projects that focus on mangrove, seagrass and coral planting in Fiji, Kiribati, Tonga and Samoa and Fiji's first nature based solution, a bio-engineered seawall that "uses mangrove hedges, natural boulders, bunding and vetiver grass and backfilling".

Another dominant area of attention for PICs is the protection of the Ocean. PIFS (2022) has initiated the '2050 Strategy for the Blue Pacific Continent' a regional, multilateral strategy to protect this large, shared resource. PIFS (2022) cites the mounting international pressure to act, given the increasing geopolitical pressure, alongside the economic interest in the PIC's oceanic living and non living resources, (Van der Vaeren, 2024) the "Blue Economy" (p.8). Part of PIFS (2022) strategy to achieve sustainable development is to leverage the possible "policy interventions to enhance carbon sequestration of the ecosystems and Exclusive Economic Zones of the Blue Pacific Continent could generate substantial climate benefits" (p.8). This is an example of a solution to achieve sustainable development that is not a top down approach and is led by the parties who stand to suffer if rates of degradation continue. In addition to the PIFS strategy, Van der Vaeren, (2024), shares some 'Blue' related solutions in Fiji, the Blue Accelerator Grant Scheme and Fiji's Sovereign Blue Bond. These solutions promote sustainable tourism, economic growth and ecosystem protection. Fiji's blue bond was implemented in 2023 with a focus on nature-based coastal protection, by "scaling up aquaculture, developing sustainable towns and cities, and enhancing waste management systems".

At the core of these sustainable development solutions for PICs is the collaboration and integration of local communities, shared knowledge, and an ethos of protecting the valuable resources of the Pacific, which extends beyond nations, for the benefit of all Pacific peoples (SPREP, 2023; PIFS, 2022).

2.4 Overview of logging industry in the Solomon Islands

The Solomon Islands is a Melanesian country in the South Pacific with a rich geographic diversity of terrain and a population of approximately 721,455, (Solomon Islands National Statistics Office, SINSO, 2020, p. 1) the majority of which reside in rural areas and are heavily reliant on subsistence activities (SINSO, 2020; Asian Development Bank, ADB, 2023; World Bank, 2023; Scheyvens & Lagisa, 1998). Solomon Islands has approximately 2.8 million hectares total land area, of which 87 per cent is under customary land ownership, whereby the Constitution “guarantees control over the land and forests to the customary owners” (Solomon Islands Government, SIG, 2020, p. 3).

The history of logging in the Solomon Islands dates back decades, to the 1920s, when operations were confined to colonial state-owned land, monitored closely by the government, and carried out by a small number of logging companies, in a few isolated locations, primarily in the Western Province (Minter et al. 2018; Katovai et al. 2015). However, this landscape shifted dramatically in the mid-1980s when logging expanded onto customary-owned lands. Frazer (1997, p. 41) verifies this rapid expansion by sharing the statistic that logging licenses acquired by foreign logging companies expanded fourfold, between 1981 to 1983. This shift enabled the entry of foreign companies to operate throughout the country, including expansion into other provinces, such as Malaita, with seemingly no oversight (Frazer, 1997; Minter et al. 2018; Franciscans International, 2020).

Katovai et al. (2015) describes how the unique geographic configuration and land ownership framework of the Solomon Islands enhances the accessibility of its forests, whereby the islands are smaller and less densely populated than those in Papua New Guinea and Southeast Asia by comparison. Therefore, it is much more cost-effective for foreign owned logging companies to “establish concurrent operations on multiple islands across the country than in larger countries in the tropical Asia-Pacific region” (Katovai et al. 2015, p. 722). Minter in Lipton (2018) states majority of the logging companies are Malaysian owned, with “patchy, short-term and unregulated” operations (para. 5), facilitated by Solomon Islander timber license holders to operate on customary owned land. ²The land ownership framework that

² Forestry and Timber Rights Utilisation Act: Outlines the trees on customary land are owned by the customary landowners, however landowners cannot fell on customary land without a license. Logging is illegal in the Solomon Islands without a Logging Licence from the Commissioner of Forest Resources under the Forestry and Timber Rights Utilisation Act. The Licensee is the person who has the Logging Licence. The Licensee could be anyone, but it is usually someone from the Solomon Islands. (LALSU, 2020).

Katovai et al. (2015) referred to earlier varies throughout the Solomon Islands, including matrilineal, patrilineal (majority) and ambilineal inheritance (Corrin and Baines, 2020), and there is no “accepted body of rules or practice” (UNDP, 2021a, para 2). As such, customary land ownership in the Solomon Islands is difficult to unanimously determine due to communal ownership, and often ambiguous boundaries (Anderson, 2023a). The formal customary land registration process has been described as cumbersome and unclear, requiring a tribal genealogy that justifies custodianship, land surveys, and explicit recording of the land boundaries and characteristics (Franciscans International, 2020; Cook and Kofana, 2008).

Corrin and Baines (2020) argue that despite various legislation enacted to address this difficulty, the SIG’s approach is still rooted in a colonial approach to communal land ownership that “has failed to find an appropriate system that responds to the needs of its population” (p. 57). Consequently, Anderson (2023a) highlights how there is evidence that many logging companies often take advantage of this ambiguity and seek out people who claim to be traditional landowners and/or claim to have rights to represent the traditional landowners and financially compensate them. Anderson (2023a) discusses how these underhanded measures enable logging companies to ‘legally’ operate on customary owned land, whilst appearing to have performed their due-diligence and legal obligation to obtain consent from the rightful landowner/s.

The significance of logging to the country's economy, especially in the late 20th and early 21st centuries, cannot be overstated. Before the global pandemic hit, The International Monetary Fund (IMF, 2023) describes how Solomon Islands’ exports drove post-conflict recovery from the early 2000s to late 2010s, and in 2018 a staggering 70 per cent of the country's exports were timber products (IMF, 2023). Timber in the Solomon Islands has been overexploited for several years at unsustainable levels (Siota et al. 2021; Anderson 2023a), an argument further verified by extensive research utilising satellite imagery and drone photography that revealed a state of rampant unsustainability in timber harvesting, with a substantial portion of these logging activities being potentially illegal (Global Witness, 2018). An alarming statistic from 2018 is that the Solomon Islands has been exporting almost 19 times the sustainable amount of timber (Global Witness, 2018, p.5). Siota et al. (2021) cites Kabutaulaka (2005) and Allen (2008) when referring to this recorded overexploitation of timber and how it is estimated that “ The Solomon Islands Government has forfeited millions of dollars of revenue due to corruption, maladministration, and political interference in the

logging industry” (p.35).

As the Solomon Islands look to the future, Siota et al. (2021) underlines an economic concern, about the high risk of industry collapse in the forthcoming decade. Since the COVID-19 pandemic there has been a persistent decline in logging output, demonstrated by a 22 per cent output decline in 2022 alone, marking its fourth consecutive year of contraction (ADB, 2023; SIG, 2023a). Given the heavy reliance on the waning logging sector for both export and revenue, The Solomon Islands must urgently search for alternative economic industries to lean on and diversify their economic activities (ADB, 2023; Anderson, 2023a; Siota et al. 2021). However, over time, the introduction of the National Forest Policy in 2020 (Ministry of Forestry and Research, MOFR, 2020)³ may offer a glimmer of hope within this dire outlook, as its strategies promote sustainable and responsible management of forest resources and ecosystems for the benefit and resilience of all Solomon Islanders” (p.5) whilst aiming to promote “capacity building for gender equity and community empowerment (p.10).

2.5 Impacts of logging on local livelihoods and environment

The introduction of the logging industry promised economic prosperity and infrastructural growth for many rural Solomon Island communities. However, the actual outcomes have been starkly different. Agreements with logging firms often differ significantly from community expectations, fostering resentment and disputes, exacerbated by misinformation and skewed decision-making (Franciscans International, 2020; Allen and Porter, 2016; Minter et al. 2018). Additionally, the economic benefits of logging such as royalty payments and job opportunities are typically inconsistent, low-paid, and inadequately distributed, primarily to male elders (Minter et al. 2018). Ultimately, while leaders hoped logging would be a promising enterprise for the Solomon Islands, it has resulted in multifaceted challenges, highlighting the pressing need for sustainable and transparent approaches.

The UNDP (2021a) emphasises how for many communities land is intertwined with culture and lineage, forming an essential part of communal identity. This statement is relevant as the profound cultural and ancestral ties to the land are central to Solomon Islanders' identity,

³ [The Solomon Islands National Forestry Policy, 2020.](#): The National Forest Policy aims at ensuring sustainable and responsible management of forest resources and ecosystems for the benefit and resilience of all Solomon Islanders. (MOFR, 2020).

beyond mere economic value (Kabutaulaka, 2005). Sanga et al. (2018, p.3) elaborates on this intrinsic land connection by explaining that like other Solomon Islanders, “Malaita people live on their ancestral tribal lands, practising age-old customs of subsistence and communal living”. However, sometimes these values are observed by many outsiders with an air of mysticism, romanticised and having been frozen in time (Hviding and Bayliss-Smith, 2000) and neglect that this connection to land can also co-exist with the people’s ambition for alternative livelihood options and economic opportunities, that use the land in a sustainable manner.

Over decades, this relationship has been undermined by the adverse environmental and social consequences of and inflicted by unsustainable logging practices (Kabutaulaka, 2005; Scheyvens, 1998a). This is exemplified by the SIG’s (2020) argument that logging has negatively impacted the nation's trajectory towards a sustainable future, affecting water resources, soil quality, biodiversity, and even the cultural values of land as the rate of logging is predicted to deplete the Solomon Islands' forests by 2036 (Global Witness, 2018). Minter et al. (2018) and Farran (2016) describe the multiple consequences of such overexploitation: local watersheds are altered, flooding risks heighten, where forests previously functioned as windbreaks, settled areas are left vulnerable to powerful winds, thus threatening agriculture, and increasing storm-related risks. Anderson (2023b) shared his team’s findings when assessing the progress of the World Bank assisted Rural Development Program (RDP) that provided several community driven development projects. The most startling finding was that of the random sampling of water subprojects Anderson’s (2023b) team visited, 62% of them were confirmed by community members to be the result of logging induced damage to existing water supplies. What Anderson’s (2023b) discovery highlights are the contradictions of development and lack of sustainable development. This example shows the interconnectedness of unsustainable resource extraction and community driven development, where seemingly unrelated rural development projects funded by international donors looking to support rural communities are discovering that majority of these communities need basic support, such as clean water, which has been destroyed by the main source of export earnings for the Solomon Islands: logging.

Logging has compromised economic stability and cultural heritage in the Solomon Islands, which has led to social and political disempowerment by prioritising external interests over community needs (Minter, 2021; Minter et al. 2018; Scheyvens and Lagisa, 1998). For example,

as described by Minter (2021), logging may provide some employment opportunities, mostly low skilled and low paid positions (primarily for men), but the wealth and profits do not remain and infiltrate the local economy, rather they flow back to internationally owned logging companies, while simultaneously unfulfilled promises of delivery of communally beneficial infrastructure projects are often not realised (Beck and Jaques, 2020; Minter, 2021).

There are many other examples in the Pacific, and specifically the Solomon Islands that are responding to the economic pressures and environmental and social impacts of logging.

Alternative livelihood options to logging that have been tried and show promise, such as eco-timber or sustainably harvested (Forest Stewardship Council, FSC certified⁴) community owned timber as attempted in other parts of Melanesia, as investigated by Scheyvens' (1998a). In addition to the Strengthening Competitiveness, Agriculture, Livelihoods, and Environment – Natural Resource Management (SCALE-NRM) project, a \$16.5 million investment by USAID, aims to foster economic growth and improve forestry management in the Solomon Islands (Winrock, 2024). This project has helped enact the Forest Business License Ordinance (FBLO) in Malaita, which protects over 107,000 hectares of forests through steep licenses and compliance fines from illegal logging and is touted to serve as an example for other regions (Kekea, 2023). Additionally, SCALE-NRM supports Payment for Ecosystem Services (PES) programs and alternative livelihood activities, such as cocoa farming, providing significant economic benefits to communities (Winrock, 2022). SCALE-NRM empowers communities to actively participate in decisions regarding community-owned forests and to develop and implement conservation and management initiatives for these forests (Winrock, 2022; Winrock, 2024).

A tangible example of this project's implementation and impact is that the Kira tribal land in Southern Malaita was officially recognised as the first Protected Area under the Solomon Islands' Protected Areas Management Act 2010 in Malaita, in October 2023 (SIG, 2023b). This status allows the Kira tribe to manage and govern their 677 hectares of intact forests, protecting them from logging and ensuring other ecosystem benefits for over 300 households in the Masupa, Aiarai, and Purimou communities (SIG, 2023b). These benefits include the preservation of traditional livelihoods and customary rights (Winrock, 2024). The Kira tribal

⁴ A forest management certification certified by FSC.

lands are among the last unlogged areas in Malaita. Before achieving Protected Area status, the tribe faced increasing pressure from logging companies. In response, they established the Takataka Eco Village Conservation Foundation (TEVCF) in 2014 to govern and protect their forest resources. TEVCF is also a member of the Mai Ma'asina Green Belt,⁵ (MMGB), an umbrella organisation supporting conservation efforts in Southern Malaita.

The project produces carbon credits by reducing the emissions of carbon dioxide that would be released if the usual practice of logging had taken place. By measuring trees, Rangers from the Sirebe Tribe have proven their forest acts as a storehouse for carbon, keeping it out of the atmosphere where it would contribute to climate change (Nakau, 2022). Lyons and Walters (2023) describe how these projects not only reduce CO₂ emissions but also provide sustainable income and maintain essential forest resources, such as clean water, food, medicine, and materials. The future of forest carbon in the Solomon Islands is strong, with these projects demonstrating environmental, cultural, and financial benefits. New community-owned projects are being established across the islands, supporting sustainable development, and providing long-term economic stability for local communities. While the income from forest carbon projects is modest, it is significant for local communities, as it benefits all tribal members and promotes sustainable development (Nakau, 2022; Nakau, 2024).

These examples begin to illustrate how development projects in Melanesia are being tailored to address the environmental and social impacts of logging. By focusing on clean water supply, sustainable agriculture, renewable energy, health improvements, and community-based forest management, these initiatives aim to mitigate the adverse effects of logging and promote sustainable development.

2.6 Conclusion

This chapter has presented a thorough analysis of the concept of sustainable development and placed it within the context of the Solomon Islands' logging industry. The intricate balance between development and sustainability was explored in this chapter, in addition to a centring of the challenges and complexities of achieving sustainable development in often vulnerable

⁵ Mai Ma'asina Green Belt (MMGB), <https://mai-maasina.org/>

regions, such as PICs. The review of the literature has emphasised the need for a holistic and integrated approach that honours the importance of Indigenous knowledge, diverse cultural contexts, promotes human rights, freedom-oriented (Sen, 2013). It supports an approach that also aims for a balanced relationship that is environmentally sustainable, economically practical, socially equitable and culturally cognisant. The sections on logging in Solomons showed some of the costs of heavy reliance on this industry for export revenues, such as severe environmental degradation, economic instability, and social upheaval. Impacts that are gendered, as women are disproportionately affected due to environmental damage from deforestation and water contamination which disrupts traditional livelihoods and food sources predominantly managed by women, leading to increased insecurity (Minter, 2021). In addition, patriarchal structures often exclude women from financial gains and decision-making power (Minter et al. 2018; Scheyvens, 1998a; ADB, 2015; Minter, 2021). Socially, the presence of logging operations exacerbates conflicts and domestic challenges, further marginalising women in the community. This foundational analysis will serve as a critical lens for future chapters to aid in understanding the multifaceted challenges of achieving sustainable development in specific contexts.

Chapter 3 - Gender, environmental movements, and empowerment

3.1 Introduction

This chapter explores the pivotal role of women in environmental movements around the world. It begins with an examination of Jo Rowlands' (1997) seminal model of power, and her categorisation into four key types that are instrumental in understanding the empowerment of women: 'power within', 'power with', 'power to', and 'power over'. This is an approach supported by Scheyvens' (2020) assessment of empowerment as an essential component in the development of marginalised groups.

Moving on from the theoretical, this chapter transitions into an exploration of the practical application of power and empowerment in the form of four distinct environmental movements with women at the helm: The Green Belt Movement in Kenya; the Chipko Tree hugging movement in India; The Kawaki Women's Network and the Isabel Mother's Union (IMU). Both latter movements are from Isabel in the Solomon Islands and have shared membership. These movements exemplify the intersection of women's empowerment and environmental activism, highlighting the transformative effect of women's collective efforts on sustainable environmental policies and practices.

This examination steers readers into an analysis through the lens of the Empowerment and Sustainable Development (EASD) Framework developed by Scheyvens and van der Watt (2021), which integrates empowerment and sustainability in a tourism setting. This researcher will adapt the existing framework and apply it instead to environmental movements, particularly the women rangers of Iqwa and their involvement in forest protection, which is a focus of this research.

3.2 Theories of Women's empowerment

Theories of women's empowerment proposed by Scheyvens (2020), Kabeer (1994), Sen (2013), Cornwall and Edwards (2014), Rowlands (1997), and Kabeer (1994), encompass a broad spectrum of perspectives that address the dynamic interplay between individual agency

and collective action within societal structures. Cornwall and Edwards (2014, p. 5) emphasise the 'complex reciprocal relationship between women's 'self-understanding' (Kabeer 1994) and 'capacity for self-expression' (Sen 1997) and their access to and control over material resources. Central to these theories is the work of Jo Rowlands (1997) who delineates four distinct types of power: "*power within*," "*power with*," "*power over*," and "*power to*." These concepts provide a lens to view and understand the multifaceted nature of empowerment in the context of gender dynamics. As such, Power and Empowerment are two concepts that are "inextricably linked" (Rowlands, 1997, p. 11). Rowland's (1997) framework is instrumental in analysing the empowerment of women, as it moves beyond the traditional notion of power as dominance ('power over') which raises connotations of dominance and control, often perceived as a zero-sum game where the successes of women imply or cause losses for men (p. 11). Rowlands (1997) argues convincingly that lying contra to women's empowerment is how "Men's fear of losing control is an obstacle to women's empowerment" (p. 11).

This analysis extends to more constructive forms of power such as 'power to' which reflects the capacity for autonomous decision-making and action-taking and includes more collaborative and self-reflective forms of power. 'Power to' signifies the ability to make choices and effect change, while 'power with' represents collective strength and shared goals equating with the whole being greater than the sum of its parts. This also accentuates the enhanced impact of collective efforts over isolated actions, 'Power from within' (p. 13) refers to personal strength and self-awareness which is essential for self-empowerment, signifying an internal strength that drives individuals to act confidently in the face of societal constraints. This also defies internalised beliefs of powerlessness often imposed by a patriarchal society (Rowlands, 1997, p. 11). These notions exemplify Kabeer's (1999) argument that the ability for people to make choices is central to empowerment.

Empowerment, as articulated by Scheyvens (2020), is an indispensable facet of development, especially for social groups that are typically marginalised based on gender, ethnicity, class, sexuality, age, and religion, that often find themselves in peripheral spaces. Empowerment, from this perspective, is a process that enables these disadvantaged people to assert a more substantial role within society, influence decision-making, and access resources to meet their needs (Scheyvens, 2020, p.122). As defined by Scheyvens (2020), Empowerment involves the process of enhancing the capabilities and confidence of marginalised individuals or groups, enabling them to influence societal decisions and access necessary resources (p. 115). Related

to this notion Schuler (1986) developed a relevant model on levels of empowerment that demonstrated how individual consciousness can lead to collective consciousness as women acquire skills and coordinate their efforts, they are more inclined to take action towards transformation. This process is not just an outcome but a fundamental part of development, a stance that has gained traction since Friedmann (1992, as cited by Scheyvens, 2020) who highlighted the complex and multifaceted nature of empowerment, integrating psychological, social, and political dimensions and arguing that an effective form of achieving development is beginning with a group of self-empowered people who mobilise their resources to bring about change.

At the grassroots level, women's empowerment is exemplified through active participation in community initiatives (Scheyvens, 2020). These movements often challenge patriarchal norms and advocate for gender equality and sustainable development (Rowlands, 1997). Women's involvement in activism serves a dual purpose of challenging existing power structures whilst fostering a more equitable and inclusive society showcasing the practical application of empowerment theories in real world scenarios (Scheyvens, 2020; Rowlands, 1997).

In addition, insights from a Gender and Development (GAD) and Masculinities and Development (MAD) perspective are especially helpful in exploring women led movements in patriarchal societies. The authors cited above essentially support GAD's premise that in order to overcome gender inequalities, we need transformative change. It is not sufficient to simply direct more resources towards women, or even to change a few laws and policies. Cornwall (2000) explains how GAD's focus is on the socially constructed nature of gender differences and promotes an understanding that the challenges facing women are a result of societal norms and institutional structures that privilege men. GAD and MAD are complementary as both examine gender as a relational concept and both frameworks interact to provide a more complete perspective on the gender and development discourse. MAD is particularly helpful in recognising that men, their roles, and societal expectations of masculinity play a significant part in shaping gender dynamics. This is best summarised by Cornwall (2000), who asserts: "changing inequitable gender relations can hardly proceed without working with men" (Cornwall, 2000, p.19).

In conclusion, teachings from scholars such as Rowlands (1997) and Scheyvens (2020) on theories of power and empowerment and by extension women's power and empowerment,

provide insights into the interplay of the personal, relational, and collective dimensions of power in these movements. As a result, women's empowerment can be viewed not just in individual achievements but also in the strengthened relationships and collective actions that challenge existing social structures for a more inclusive society, which embodies a more holistic essence of empowerment (Scheyvens 2020). These theoretical ideas highlight the complex nature of power dynamics at the personal, relational, and societal levels. These theories and outlooks highlight the importance of recognising and nurturing women's empowerment as a continuous and multifaceted process that might be the force behind women-led movements, as discussed below.

3.3 Women's involvement in environmental movements globally

There are a multitude of environmental movements around the globe established by women and/or which rely heavily on women's involvement. These movements have consistently showcased the integral role of women, evolving from varied historical, cultural, and economic backgrounds. These movements have been influential not just at the grassroots level but have also shaped global environmental policies, with women often at the forefront. However, the participation of women in environmental movements has not always been at the forefront, with the notion of environmentalism being considered a middle-class or Global North phenomenon, as debunked by authors like Gadgil and Guha (1994). They argue that even within poor countries, individuals and communities demonstrate a personal stake in environmental issues, contrary to widespread belief. This 'environmentalism of the poor', as coined by Martinez-Alier (2003) is marked by its challenge to the unequal burden of environmental degradation put upon marginalised communities. In addition, the environmental movement has been widely perceived as male-dominated regarding its origins, leadership, and policies, as pointed out by Parpart (2014) and Venkateswaran (1995) (as cited by Greed, 2021). Yet, Plush's study, (2009) describes how women and children have provided alternative, community-based adaptation solutions, solutions that differed from interventions driven by external experts. There is a rich history that demonstrates women's involvement in environmental movements, emphasising their capacity to empower themselves and increase their resilience, as argued by Caroline Moser (1989). This empowerment is defined as the ability to make choices and influence change "through their ability to gain control over both material and non-material resources" (Moser, 1989, p. 1815).

In summary, the global narrative of environmental movements is incomplete without acknowledging the pivotal contributions of the women who have tirelessly worked to integrate social justice with environmental sustainability. Their efforts underscore a critical understanding that the health of our planet is inextricably linked to the empowerment and well-being of its inhabitants, especially the most vulnerable. The struggles of women environmentalists, as identified by Greed (2021, p. 35), also highlight the insensitivity of mainstream environmentalism to the practical needs of women. This insensitivity is particularly poignant when considering the effects of male-dominated global environmental policies on local communities and women's lives. One example that demonstrates this is Larson and Evans (2018) and Larson et al. (2015) analysis of the negative impacts REDD+ implementation has had on women's lives across several locations around the world. Larson et al. (2015) summarises that this is primarily due to a lack of gender considerations being built into the program's design and implementation. Due to this gap of gender sensitive approaches some projects have inadvertently reinforced existing power structures, placing a larger labour burden on women while men may receive the benefits of the initiatives.

Four environmental movements led by women are: the Green Belt Movement in Kenya; the Chipko Tree hugging movement in India; the Kawaki Women's Network and finally the Isabel Mother's Union (IMU) both in the Solomon Islands. These movements were selected to highlight the critical role women play in empowering change. The Kawaki and IMU movements will be explored in tandem due to their geographical proximity and shared cultural and epistemological elements with the IWR's initiative.

The Green Belt Movement (GBM) in Kenya is a grassroots NGO founded by the legendary environmentalist and Nobel Peace Prize laureate, Wangari Maathai, in 1977. The GBM's core tenets are "environmental conservation, community and capacity building" (Muthuki, 2006, p. 11) and socio-economic development for women. The origins of the movement were an action in response to the urgent needs of rural Kenyan women experiencing issues greatly affecting their communities' quality of life, primarily due to the impacts of environmental degradation and deforestation. Issues such as a lack of firewood, clean water, access to a nutritional diet and income opportunities (Muthuki, 2006) led to the primary goal of creating green belts for and by the public, particularly women, to foster an environment of empowerment and self-reliance whilst combating soil erosion and restoring watersheds. The cornerstone achievement of the GBM is community-based planting programmes that

facilitated the planting of more than ten million trees across Kenya, whilst promoting activities that led to sustainable livelihoods, including food security, income-generating projects, and clean water supply (Maathai, 2004; Hunt, 2014).

GBM also provide environmental conservation and management education, with the goal of empowering and arming other communities with knowledge on how to care for their environment and promote sustainable practices, aided by program materials produced in local languages (Nielsen, 2018). In addition, advocacy for Women's rights is at the core of GBM's ethos as they identify the pivotal role of women in society and environmental protection, including rights to land, resources, and political representation (Muthuki, 2006; Maathai, 2004). The GBM's legacy demonstrates the strong connection between environmental conservation and gender and social justice.

The next example is the Chipko Tree Hugging movement originating in the Mandal and Reni villages, located in the Himalayan forests of Uttarakhand, India (Singhal and Lubjuhn, 2011). This movement involved predominantly women activists (some male activists too) hugging trees to prevent deforestation by standing as a human barrier between the trees and lumberjacks, serving as a physical manifestation of the intertwining of feminist and environmental struggles (Singhal and Lubjuhn, 2011). Satheesh (2021) describes the struggle between local hill village residents and the national policies that elevated the economic benefit and industry of commercial logging over that of more sustainable alternatives and subsistence use (p.55). Singhal and Lubjuhn (2011) share the movement's successful outcome in 1980 whereby a 15 year ban on commercial tree felling of forests in the regions was obtained, and in more common vernacular became the inspiration of the term "tree-hugger" for environmental activist, whether for better or worse.

The next two examples narrow the global scope, taking us to the Solomon Islands. The Kawaki Women's Network is leading a crucial conservation effort to protect critically endangered hawksbill turtles in the Arnavon Community Marine Park (ACMP), the largest rookery of hawksbill turtles in the South Pacific (Marine Conservation Institute, 2021; DW, 2020). In a predominantly patriarchal society, where decision making power is imbalanced and dominated by men, Kawaki women are challenging these barriers and forging their way into the conservation field. Founded in 2016 by Marilyn Gedi, the Solomon Islands' first female police officer, and Robyn James from The Nature Conservancy (TNC), Kawaki unites women from the communities of Katupkia, Waghena, and Kia on Isabel and exemplify how

gender empowerment and environmental conservation can intersect to create lasting positive impacts (DW, 2020; TNC, n.d.).

The women led initiative focusses on awareness programmes and consciousness raising, including awareness campaigns on proper waste disposal, on the importance of not eating turtles (traditionally consumed in this region), developing conservation education programs for schools, and working on a community conservation centre and various ecotourism projects (TNC, n.d.; Holland, 2017). Gedi' leadership has inspired several women across the provinces to unite, raise awareness about the islands, celebrate community conservation, build better futures for families, and promote sustainable marine resource management. Her leadership has laid the foundations for conservation, "inter-tribal cooperation, and gender empowerment" (British High Commission, Honiara, 2020). Kawaki's importance lies in its integration of Indigenous knowledge with modern conservation strategies, fostering a stronger emphasis on culture and community, which is essential for conservation success.

The final environmental movement focuses on the Isabel Mother's Union (IMU) that actively engages in raising community awareness about environmental issues, ranging from logging, mining, and marine conservation. The President of this Christian women's group, Moira Dasipio, is also a chief in the matrilineal province of Isabel (Husband, 2013; Solomon Islands Broadcasting Corporation, SIBC, 2014), playing a vital role in environmental conservation and community empowerment in the Solomon Islands group. Dasipio's dedication to these causes earned her the Coral Triangle Initiative on Coral Reefs, Fisheries and Food Security Award in 2014, specifically for the planning, development, and implementation of the Isabel Ridges to Reefs Conservation Plan, delivered in collaboration with TNC (SIBC, 2014; ADB, 2014). Hausheer (2016) describes how through the Ridges to Reefs awareness programmes and conservation project they were able to reach 13,000 people, which resulted in 59 communities across the Isabel and Choiseul provinces adopting community conservation areas.

The primary focus of Dasipio and the IMU's work centres on community-based conservation and raising awareness on environmental issues to help women feel empowered to sustainably manage their local resources. Furthermore, Dasipio has been instrumental in opposing logging and mining activities in Isabel Province. Dasipio coordinated a group of local facilitators to spread conservation messages and inform communities about the potential impacts of a proposed nickel mine. Through these efforts, they reached approximately 3,000 people

(Husband, 2013; Gammon, 2015).

Land ownership in Isabel Province follows a matrilineal system, where land is passed through the female line (Gammon, 2015). While this theoretically empowers women in land ownership and planning, in practice, women often face challenges in having their voices heard. Men typically focus on immediate monetary gains from resource exploitation, whereas women, who traditionally care for children and grandchildren, prioritise long-term environmental sustainability (Gammon, 2015). Dasipio explains that this dynamic emphasises the importance of women's involvement in conservation efforts, as they are more inclined to consider long-term benefits (Gammon, 2015).

Both of these Isabel province movements demonstrate the significance and reciprocity of Indigenous knowledge in environmental protection for the benefit of current and future generations and fellow community members: Harris (2017) thus states,

The Pacific social structure is founded on robust kinship networks and a culture of reciprocity, with the act of giving and receiving deeply embedded in the traditional values of Pacific cultures. (p. 17).

All four of these environmental movements place women at the forefront of the decision-making process and emphasise the importance of women's role in instigating positive community change. They represent an intersection of environmental movements that blend economic elements with local knowledge and wisdom for sustainable livelihood alternatives that strike a balance between economic advancement and responsible resource use. These movements also recognise the importance of empowering women to have agency and autonomy, thereby enabling them to contribute to their households by providing alternative livelihoods. This notion of empowerment aligns with Rowlands' (1997) concept of 'power with,' which represents collective strength and shared goals, highlighting how the whole is greater than the sum of its parts. This also accentuates the enhanced impact of collective efforts over isolated actions. No movement or social uprising exists in a vacuum, on the contrary, yes, while environmental protection is the primary motivation for these movements, they are also shaped by social, cultural, psychological, political, and economic factors, demonstrating the multifaceted nature of these causes.

3.4 Conceptual framework: Empowerment and Sustainable Development

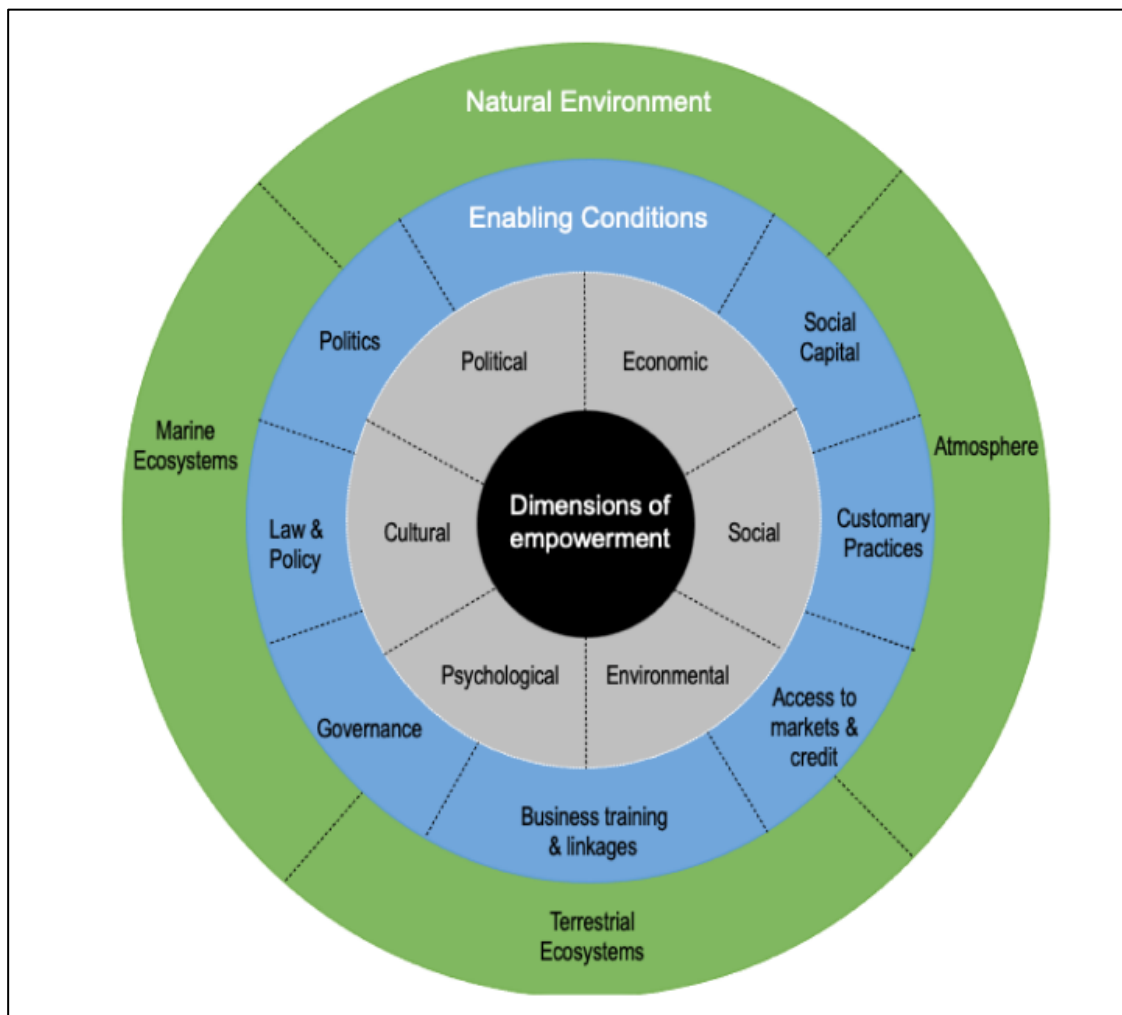
Bringing together understandings of empowerment and women's environmental movements, this section now explores Scheyvens and van der Watt's (2021) Empowerment and Sustainable Development (EASD) Framework (Figure 3.1). This is a comprehensive model that integrates empowerment with sustainable development in the specific context of tourism. This framework leverages off and adapts other commonly used Empowerment frameworks in the development field: namely: The Scheyvens' Empowerment Framework published in 1999, also takes inspiration from Raworth's (2017) Doughnut Economics "which explains that no development within the economy or society should then breach planetary boundaries" (Scheyvens and van der Watt, 2021, p. 7).

The EASD framework is a 'nested circle' approach for sustainable development that suggests there are "Seven Enabling Conditions" that enable "the empowerment of communities" (p. 8). These conditions are social capital, customary practices, access to markets and credit, business training and linkages, governance, law, policy, and politics. Social capital involves community networks and support systems that provide resources and opportunities for empowerment. Customary practices refer to traditional norms and cultural values that influence empowerment, either positively by boosting confidence and promoting entrepreneurship or negatively by restricting opportunities, particularly for women. Access to markets and credit is essential for starting and sustaining businesses, while business training and linkages offer important skills, potential partnerships, and connections for economic activities. Governance refers to the policies, mechanisms, and institutions that enable and regulate decision-making and resource allocation. Law and policy shape the environment in which communities operate, directly influencing who benefits from tourism. Political stability or instability can significantly impact empowerment opportunities, with stable and supportive political environments fostering empowerment (pp. 8-10.). Within the centre of this framework there are six dimensions of empowerment, comprising the psychological, social, economic, and political, environmental, cultural. Psychological empowerment enhances self-esteem and confidence through participation and training. Social empowerment strengthens community cohesion via collective projects and initiatives that benefit the wider community. Economic empowerment focuses on financial independence and equitable distribution of tourism benefits. Political empowerment ensures community involvement in decision-making processes related to tourism and other development activities. Environmental empowerment

promotes sustainable practices and conservation, helping communities protect and enhance their local environment. Cultural empowerment values and preserves cultural heritage, allowing communities to share their identity with tourists and fostering respect for cultural diversity (p. 10 - 13).

The EASD framework was developed to provide a fit for purpose framework to analyse empowerment and sustainable development in the tourism field. Despite this, the framework provides a comprehensive approach that can be adapted for and applied to fields other than tourism. Examining the prescribed dimensions provides an apt opportunity to analyse the multifaceted nature of empowerment and assess how community empowerment can support sustainable development in the context of female led anti-logging movements.

Figure 3.1: Empowerment and Sustainable Development Framework



Source: Scheyvens and van der Watt, 2021

Application of the Empowerment and Sustainable Development Framework

I plan to use Scheyvens and van der Watt's (2021) framework to analyse the extent to which women in Iqwa involved in environmental movements demonstrated empowerment dimensions, and furthermore, to analyse what factors have prevented or enabled empowerment to occur (p. 13). For example, when conducting the case study, I will examine whether customary practices enabled or disabled the actions of the women doing environmental protection in Iqwa.

Unsustainable logging, as described in Chapter 2, impedes empowerment across all dimensions as it prioritises short-term economic gains over long-term community well-being, inclusion, and environmental sustainability (Minter, 2021; Scheyvens & Lagisa, 1998). It will be interesting to see whether, when applying the EASD framework, the women-led resistance of the self-appointed Iqwa women rangers (IWRs for ease of reference) and the environmental organisation they subsequently formed the Leileigela Conservation Group (LCG), can significantly contribute to empowerment by fostering sustainable practices, enhancing community cohesion, protecting cultural and natural heritage, influencing political processes, and ensuring environmental conservation.

3.5 Conclusion

This chapter sought to investigate the intricate relationship between women-led environmental action and empowerment by aiming to showcase not only the individual and collective successes of women in the environmental sphere but also to affirm the significance of their involvement as a cornerstone of sustainable development and social transformation.

In concluding this exploration of women's empowerment and environmentalism, a common thread of the convergence of the individual, the communal, and the global narratives appears. The chapter began with Rowlands' pivotal framework, detailing the nuanced forms of power central to understanding women's empowerment. Scheyvens' insights further expanded on this by emphasising the importance of empowerment in societal development, whilst highlighting the shift from personal agency to collective action. This theoretical analysis was applied to four environmental movements, each displaying the transformative power of women's leadership and community activism in environmental conservation and sustainability.

The case studies, from the Green Belt Movement to WARA, illustrate the interconnectedness of environmental protection, socio-economic advancement, and gender empowerment. This notion was summarised by the Norwegian Nobel Committee (as cited by Muthuki, 2006, p. 86) who explained that by awarding the Nobel Peace prize to Maathai it was a global acknowledgement of the “Connections between peace, environmentalism, democracy, sustainable development and the importance of human rights , particularly Women’s rights”. Finally, the chapter introduced the Empowerment and Sustainable Development (EASD) Framework, which will be used when describing and analysing the IWR case study later in the thesis.

Chapter 4 - Methodology and Research Design

4.1 Introduction

This chapter presents the methodological approach and research design implemented to explore the role of Iqwa women in environmental protection in the context of unsustainable logging practices. In doing so I will present the specific methods used, ethical considerations and the process of data collection and analysis. As this research was set in the Pacific Islands, a range of qualitative methods were selected that align with Pacific research principles as outlined by the Pacific Research & Policy Centre (PRPC, 2017) and this chapter will describe the value of designing a process that integrates Indigenous methods that emphasises local knowledge, reciprocity, and ethical engagement.

4.2 Qualitative Methodology and Pacific Research Principles Overview

A qualitative methodology was selected as the most suitable methodology approach for collecting data and exploring the vital role of Iqwa women in environmental guardianship and the inherent complexity of their experiences. A qualitative methodology approach aims to question the human experience and understand and find meaning in the social world, whilst collecting and generating data in ‘natural settings’ (Stewart-Withers et al. 2014, p. 59-60; Bailey, 2007).

As stated earlier this research project will utilise a range of qualitative research methods that are aligned with Pacific research principles (PRPC, 2017). Qualitative methods such as semi-structured interviews, the Indigenous, Melanesian method of ‘*Tok stori*’ sessions, and thirdly, reflective/observational journal writing, all of which would be classified by Bailey (2007) as “naturalistic inquiry” (p. 2). These methods offer a lens to understand the beliefs, practices, and attitudes of individuals (Stewart-Withers et al. 2014), most notably of Malaitan women both in their public and private spheres. In this setting, integrating Indigenous-informed methodologies is not just complementary but essential (Smith, 1999) as they value local wisdom and enable the research to resonate with the lived experience of Iqwa women. Furthermore, Quanchi (2004) refers to the international Convention of Biological Diversity (1996) which recognised the local knowledge of Indigenous people as “important to the

maintenance, conservation and sustainable use of the earth's biological diversity" (p. 3), a valuable lens with which to explore my research aim.

A critical component of this Indigenous approach to research is reciprocity. Drawing upon Battiste (2008 as cited in Stewart-Withers et al. 2014) this study acknowledges the crucial role of reciprocity, emphasising mutual "recognition of the custodians of knowledge" (p. 74). This perspective is highlighted by Stewart-Withers et al. (2014) and Smith (1999) who advocate for the knowledge gained from research be generously shared back with the community. A practice which adheres to the essence of communal values prevalent in Oceania (Quanchi, 2004).

This application of qualitative research methods enabled me to gain an understanding of the social, cultural, and political meanings that were encountered in the research process. These are meanings that are not only socially constructed but also situational and historically rooted in local contexts (Stewart-Withers et al. 2014). The deeply localised, socio-cultural, and environmental intersections of this topic, emphasise the holistic nature of 'phenomena' as essential (Stewart-Withers et al. 2014). While ensuring the robustness of this qualitative inquiry, it is crucial to maintain accessibility, rigour, and transparency (Sumner and Tribe, 2008).

Central to qualitative research is the notion of active learning. Stewart-Withers et al. (2014) advocate for researchers to immerse themselves as "active learners" (p. 60) in local realities, genuinely absorbing the narratives of the participants. Chambers (1983) further amplifies this by calling for a focus on rural perspectives and the integration of local knowledge into developmental frameworks and 'putting the last first'. These approaches aided my understanding of the role of the Iqwa women who are at the heart of this research, as they serve as guardians of their environment and empower change.

4.3 Ethical Considerations and Pacific Research Principles Overview

Ethics are a principal element of the research process in terms of both input and output. In pursuing an understanding of research ethics, it is essential to prioritise the rights and well-being of the participants involved. Banks and Scheyvens (2014) highlight that ethics in research requires a comprehensive approach, where participants must be fully informed, harm

avoidance ensured, alongside a deep respect for their cultural norms to be maintained.

This research was carried out in compliance with two ethical requirements. Which comprised, completion of the Massey University's Human Ethics Committee (MUHEC,2017) ethics approval process, and secondly, obtaining a Solomon Islands Government (SIG) Research Permit granted by the Ministry of Education and Human Resources Development (MEHRD) (see Appendix A).

Official ethics approval was required prior to entering the field and embarking on any interaction with human participants. This process assessed my proposed considerations for data protection, informed consent, confidentiality, cultural values, and gender concerns. As emphasised by O'Leary (2014) and maintaining ethical transparency from the beginning of the research through to its conclusion alongside full and informed consent is necessary. The MUHEC approval process required an in-house Development studies ethics review meeting, with my supervisor Prof. Regina Scheyvens and Prof. Glenn Banks acted as an independent reviewer, from the Development Studies Institute at Massey University. This process required me to demonstrate my understanding of the ethical issues of my proposed research, (as described above) and how I seek to mitigate or address them, focussing on human participant protection and alignment with the Pacific research principles. After this process, my ethics application was assessed as low risk and as a result, a low-risk notification went to MUHEC. Ethics Notification Number: 4000028666. Following this assessment, the notification was selected by the Research Ethics Office for review by the Chairs of the Massey University Human Ethics Committees, who confirmed that the notification was deemed as meeting low risk criteria.

As I am not a Solomon Island Passport Holder, the SIG requires all overseas researchers to obtain a research permit. The process required two parts. Part A, an ethics application form, which included a research proposal, confirmation of which province/s the research would be conducted and ethics approval from my university. Part B was a payment of SBD \$500. There were some unforeseen delays to finalising this process by the MEHRD due to the SIG being in 'caretaker mode' in anticipation of the April 2024 election. However, despite these potential delays the research permit was granted on the 26th of March 2024 (see Appendix A).

Furthermore, it is important to address that The Pacific Research Principles (PRPC, 2017) were at the core of this research. These principles advocate for respect for relationships,

knowledge holders, reciprocity, holism and using research to do good. The research design aimed to evaluate and mitigate the risk of harm to participants, the researcher, and the university. This involved an assessment of the physical, psychological, and social risks, and the potential mitigating in case of any cultural misunderstandings, for example financial compensation where appropriate as is common in Malaitan culture. Furthermore, strategies for harm reduction were included to establish clear protocols for dealing with sensitive topics to ensure I was prepared to navigate complex social dynamics respectfully and safely. One such strategy I employed was emulating Litea Meo-Sewabu's (2014) concept of a 'cultural discernment' group (p. 345). In doing so I shadowed and checked in regularly with older aunties and female cousins in Iqwa to ensure my behaviour was appropriate and showed sufficient respect.

Furthermore, a critical component of an Indigenous approach to research is reciprocity. Drawing upon Battiste (2008 as cited in Stewart-Withers et al. 2014) this study acknowledges the crucial role of reciprocity, emphasising mutual "recognition of the custodians of knowledge." (p. 74). This perspective ensures that the knowledge gleaned from research is generously shared back with the community, (Stewart-Withers et al. 2014) adhering to the essence of communal values prevalent in Oceania (Quanchi, 2004), which would include sharing the final research product with the Iqwa community members.

I adhered to the Pacific Research Guidelines and Protocols (Pacific Research & Policy Centre, PRPC, 2017) and advice from family members to determine the most culturally appropriate exchanges. These exchanges included physical items and monetary forms of reciprocity that varied between research participants, including discreetly gifting small envelopes of local currency to the key research participants. In addition, I decided to gift a mobile phone to Philemon Maudua (LCG Coordinator) to thank him for his support, but to also aid in his ability to perform his LCG Coordinator duties such as communicating with NGO partners, take pictures of the conservation area and activities and updating the LCG social media platforms and various documentation. The sharing of this mobile phone also enables me to practice reciprocity beyond my time in Iqwa, meaning I am able to continue developing my relationship with the LCG and assist remotely, with future funding applications or grants the LCG plan to apply for.

Given the personal connection with my research participants it was very important to me that I demonstrate my appreciation for their time, knowledge and openness. As will be

demonstrated later in this research, education is the motivating factor for generating an income outside of the subsistence lifestyle. Sanga et al. (2023) refers to how in the Solomon Islands education is considered a “community rather than a personal asset” (p. 2), and I wanted to honour this ideology. Therefore, prior to arriving in Iqwa, I had gathered various reading books, exercise books, stationery and some sports equipment to distribute to the children of Iqwa, via their mothers.

4.4 Methods

Semi-structured Interviews

The first qualitative research method I will discuss is semi-structured interviews. This is a method guided by a qualitative approach, described as "conversations with purpose" (Stewart-Withers et al. 2014, p. 60). O’Leary (2014) stresses the importance of building trust with interviewees as crucial for open and honest exchanges that benefit both parties. In doing so, a crucial element of conducting these interviews I was cognisant of was the recognition and acknowledgement of my own positionality in this research process and the researcher-interviewee relationship/dynamic (Stewart-Withers et al. 2014; Murray and Overton, 2014). This is why I gave attention to the potential influences on their responses, such as local socio-cultural factors, and linguistic nuances whilst arranging and eventually conducting the interviews. This method of interviews as a form of data collection was to understand and facilitate change through thematic and inductive analysis “from the specific to the general” (Stewart-Withers et al. 2014, p.59), which is inherently interpretive.

While in the field, semi structured interviews were a valuable data collection tool and are how I gathered most of my data. They allowed open conversation and flexibility (O’Leary, 2014, p.240) in a natural and not forced or structured setting and were able to range in length of time (Stewart-Withers et al. 2014). As a result, it is my view that these flexible conversations led to deeper insights. Prior to the interviews I prepared a small set of basic questions that related directly to my research questions, and then a tailored set of questions that reflected their connection to the IWR/LCG specifically, whether they were a ranger, a woman, not directly involved in the ranger work or a man within the community. I had obtained verbal consent from each interviewee to record them speaking, which enabled me to actively listen and engage with them. The recordings were very valuable as all the interviews and recorded *tok*

stori were conducted in Pijin, and if segments were spoken in Dorio, there was live translation from a Pijin speaker who was present.

The locations of the semi structured interviews ranged in location from within the bush and conservation area, at an old logging site, outside a church directly after a Sunday service and within homes. The flexible style of planning and conducting these interviews required adaptability, which ensured I was available at suitable times for the interviewees that aligned with their daily schedules.

I planned to limit my interviewees to three to four people, comprising the two female rangers who were dominant in the movement: Monica Ta'afuni and Florence Kwaina'ala, and a woman, perhaps a village elder who is not directly involved with the movement. This smaller number of interviews was selected given the scope of this research project as a 60 credit project rather than a 120 credit thesis. The primary focus was to explore the Women rangers' context and perspectives, whilst acknowledging this focus does not claim to represent the wider narrative. This is why I did not intend to interview representatives from the government and logging companies or many men.

Please refer to the Key Informants Table (see Table 4.1). Please note this list extends beyond my initially planned three to four participants. This is due to the numerous *tok stori* (as outlined in the next section) and organic or 'by chance' encounters that I had during my time in the field. Furthermore, it is important to note that I obtained verbal consent from each informant as listed in Table 4.1. As such, all participants consented for their names and photographs to be included in this research, and in cases where no harm is likely to come from the statements they have made, the decision was made to provide their names. Conversely, after discussions with my supervisor, the decision was made to disguise names in other cases where a participant criticised a named individual or organisation – in these cases, 'Anonymous participant' is used.

Tok Stori

The second qualitative research method I employed was the '*Tok Stori*' method. *Tok stori* is a concept and process that stems from Melanesian culture and extends beyond the act of storytelling (Sanga, et al, 2018; Sanga & Reynolds, 2021; Sanga, et al, 2021). As Sanga et al. (2018) explains, it is a shared narrative and relational process that not only "creates and maintains relationships" but stands as an everyday "Melanesian expression of commitment to togetherness." (p. 5). As my research is set in a Melanesian context, Sanga et al. (2018)

advocates for this “Melanesian methodology as a fit with Melanesian research is an act of decolonisation” (p.3). Sanga’s et al. (2018) perspective is an expansion of Smith’s (1999) seminal work on decolonising methodologies and a centring of alternative non-imperial forms of knowledge production and sharing.

As stated earlier, the relational nature of *tok stori* is an important element of this method. A method predicated on the building of relationships between research and participants as opposed to it being centred on a single isolated event (Sanga et al. 2018). As a result of this relationship building, *tok stori* becomes more of an organic discussion over time, not necessarily time bound to a particular event, but the process will also continue after this event, which reflects the relational nature of *tok stori*. After acquainting myself with the rangers and other women in the community, I built the requisite trust and relationships which meant that what sometimes started with an interview evolved into *tok stori* with that person across the entire research period.

Over my next three weeks spent in Iqwa, I came to observe how embedded *tok stori* was in everyday Melanesian life, especially Melanesian village life. Each home had an open seating area, where people flowed in and out of everyday, stopped to *tok stori* and then were on their way. As a result of this, I had the opportunity and pleasure of being able to speak to a wide range of people and perspectives, not only related directly to logging activity and the IWR’s initiative, but also to gather insights into the cultural and social environment, and therefore a richer understanding of the context I was undertaking my research. At the forefront of implementing this research method for me was an overarching emphasis on relationality and the idea of ‘Melanesianism’ (Kabutaulaka, 2015, p. 135) or the ‘Melanesian Way’ (Sanga et al. 2018, p.3)

Table 4.1: Key Informants Table

#	Affiliation	Position	Name	Date (2024)	Interview Location	Interaction / Data Collection method
1	LCG	LCG Coordinator / Male Ally	Philemon Maudua	3 to 21-Apr	Iqwa Village & Leileigela Conservation Bush Area	Semi-structured Interview/ <i>Tok stori</i> /Unplanned conversation/encounters: Shadowed, spent 3 days in the Leileigela Conservation bush area where several discussions took place. Provided translation support and helped to facilitate involvement in ranger meetings and activities
2	LCG	Originating Member of the Conservation Efforts and Treasurer of Management Committee	Florence Kwaina'ala	3 to 21-Apr	Iqwa Village & Leileigela Conservation Bush Area	Semi-structured Interview/ <i>Tok stori</i> /Unplanned conversation/encounters: Shadowed, spent 3 days in the Leileigela Conservation bush area where several discussions took place.
3	LCG	Founding member of IWR	Monica Ta'afuni	3 to 21-Apr	Iqwa Village & Leileigela Conservation Bush Area	Semi-structured Interview/ <i>Tok stori</i> /Unplanned conversation/encounters: Shadowed, spent 3 days in the Leileigela Conservation bush area where several discussions took place.
4	LCG	Original Women Ranger	Judith Boifuana	3 to 21-Apr	Iqwa Village & Leileigela Conservation Bush Area	Part of 'Cultural Discernment group' spent almost every together. Involved several unplanned conversations, meaningful observations, and rich insights
5	LCG	Village elder / Male Ally	Martin Suafunua	3 to 21-Apr	Iqwa Village & Leileigela Conservation Bush Area	Semi-Structured Interview Spent 3 days in the Leileigela Conservation bush area where several discussions took place. Several 1-1 <i>tok stori</i> throughout research
6	Iqwa Community	Iqwa woman / Not a Ranger	Bethy Onoia	3 to 21-Apr	Iqwa Village & Leileigela Conservation Bush Area	Part of 'Cultural Discernment group' spent almost every together. Involved several unplanned conversations, meaningful observations, and rich insights Spent 3 days in the Leileigela Conservation bush area where several discussions took place.
7	Iqwa Community	Iqwa woman / Not a Ranger	Miriam I'afuana	3 to 21-Apr	Iqwa Village & Leileigela Conservation Bush Area	Part of 'Cultural Discernment group' spent almost every together. Involved several unplanned conversations, meaningful observations, and rich insights Spent 3 days in the Leileigela Conservation bush area where several discussions took place.

#	Affiliation	Position	Name	Date (2024)	Interview Location	Interaction / Data Collection method
8	Iqwa Community	Village Elder / Legal Representative for LCG / Male Ally	Primo Afeau	29-Mar, 2-Apr, 20-Apr	Honiara	Unplanned conversations: Provided wider context on history of logging in Iqwa area and the various legal history, policies, and implications up until this point
9	LCG	Secretary Management Committee / Male Ally	Patrick Maudua	4-Apr & 11-Apr	Iqwa School, Iqwa Village	<i>Tok Stori</i> and Rangers weekly meeting 1 day in the Leileigela Conservation Forest Area
10	LCG	Chairman of Rangers / Male Ally	Ezekiel Wagi	4-Apr & 11-Apr	Iqwa School, Iqwa Village	<i>Tok Stori</i> and Rangers weekly meeting 1 day in the Leileigela Conservation Forest Area
11	LCG	REDD+ Team Captain	Claudios Sumanu	4-Apr & 11-Apr	Iqwa School, Iqwa Village	<i>Tok Stori</i> and Rangers weekly meeting 1 day in the Leileigela Conservation Forest Area
12	LCG	Ranger / Male Ally	Andrew Alasuka	4-Apr & 11-Apr	Iqwa School, Iqwa Village	<i>Tok Stori</i> and Rangers weekly meeting 1 day in the Leileigela Conservation Forest Area
13	Iqwa Community	Male Ally / Not an active Ranger	Lawrence Aforosimae	8-Apr	Iqwa Village	Unplanned conversations: Provided valuable context prior to entering the Leileigela conservation bush area on the geographical, cultural, and linguistic make up of Malaita and specifically Iqwa. Also provided advice on how best to conduct oneself in the forest area, sharing the specific <i>kastom's</i> and expected behaviours that are involved with spending time in the bush area.
14	LCG	Ranger / Former Housekeeper in Logging Camps	Josephine Maduka	12-Apr	Iqwa Village	Semi-Structured Interview
15	Fila Inc.*	Timber Licensee for Iqwa tribal lands. *Timber Logging License Company	Alfred Afeau	13-Apr	Bona, West Kwaio: Old log pond, near the port where barges would collect logs for export	Semi-Structured Interview
16	LCG	Village elder / Male Ally	Timothy Abolate	19-Apr	Iqwa Village	Semi-Structured Interview
17	Not stated	Conservationist	Tommy Esau	20-May	Zoom	Semi-Structured Interview

Reflective/Observational Journal Writing

The next method I utilised was reflective/observational journal writing. According to Stewart-Withers et al. (2014), fieldwork diaries serve as a daily log of the events, experiences, tasks, and observations. Reflective journal writing was pivotal for research purposes as it not only records observation, but it also captured my evolving insights, emotional responses, and personal growth. Stewart-Withers et al. (2014, p.62) explains how the regular practice of journal keeping can be very valuable for “considering the meaning behind unexpected encounters in your day, and the development of relationships with your research participants”, which aligns heavily with my experience and several encounters across my three weeks in Iqwa. Furthermore, this reflective method aided in ensuring the depth and rigor of qualitative data, facilitating a more comprehensive understanding of the research context.

4.5 Data Collection and Analysis

Data Collection

The data collection process involved gathering qualitative data through various methods (see Section 4.4. Semi-structured interviews and *tok stori* took place with key stakeholders to gain insights into the range of perspectives on logging and its impact, conservation, environmental guardianship, resistance and for greater context timber licensing process and its cultural impacts. Observations provided contextual understanding, while document analysis offered preliminary information prior to heading into the field and then additional information to support the findings. This multi-method approach ensured a rich and diverse dataset for analysis.

Data Organisation and Coding

Following data collection, the information was systematically organised to prepare for coding. The data processing encompassed selective transcription of the recorded interviews, live translations, and thematic analysis. The coding of the data (interview transcriptions and fieldwork journal) was conducted manually and involved working through hardcopies of the transcripts with pens and highlighters. This selective transcription method ensured that key information was accurately captured and categorised for further analysis. The importance of rigour in qualitative research was emphasised by Becker et al. (as cited in Stewart-Withers et

al. 2014, p. 77) and special attention was given to taking some steps to ensure this, which involved data triangulation and verification of specific claims made by interviewees, specifically regarding the timber licensing process, timelines, and cultural impacts with other community members.

Thematic Analysis

Braun & Clarke (2006)'s thematic analysis is considered a foundational qualitative method, and the approach includes a six-phase framework which comprised:

- 1) **Become familiar with the data:** Immersion in the data through data transcription, reading and re-reading the data and noting down initial ideas
- 2) **Generate initial codes:** Coding the data in a systematic fashion
- 3) **Search for themes:** Organising and collating codes to map out preliminary themes
- 4) **Review themes**
- 5) **Define themes:** Select the final set of themes
- 6) **Final written report:** Produce a final scholarly report that has analysed the data and applied the defined themes back to the research questions and literature.

(Braun & Clarke, 2006, p. 87):

This clear and practical framework provides essential skills for conducting various types of analysis (p. 78). Maguire and Delahunt (2017) highlight the versatility of thematic analysis, referring to its applicability across various contexts as it is not associated with any epistemological or theoretical perspectives (p. 3352). Thematic analysis was the primary method I used to identify themes within the qualitative data, and as with the data coding process, it was conducted manually and involved several iterations.

The goal of thematic analysis is to identify themes that are significant or interesting, and to use these themes to address the research questions or provide insights into the issue. The iterative nature of this process, moving back and forth between steps and goes beyond simply summarising the data, instead, it involves interpreting and making sense of it. ensured a rigorous and thorough analysis.

4.6 Conclusion

This chapter has outlined the research design and methodology for this research report, which explores the intersection of women's empowerment and environmental guardianship. Through a qualitative approach grounded in Pacific research principles and Indigenous methods, the adoption of methods such as '*Tok stori*' sessions, semi-structured interviews, and observations have been selected to collect primary data in the field. The findings of this research will be presented in the chapters to follow.

Chapter 5 - Research Findings: The self-appointed women rangers of Iqwa and the Leileigela Conservation Group (LCG) Case Study

5.1 Introduction

The self-appointed women rangers of Iqwa and the Leileigela Conservation Group (LCG) case study explores the crucial role of Indigenous women in conservation. This chapter examines the historical context of logging in the Iqwa area, the community attitudes towards it, and the strategies employed by the self-appointed women rangers (IWR) and LCG to protect their land. Through their efforts, these women have addressed environmental, social, and gender-related challenges, highlighting the intersection of cultural preservation and sustainable development.

5.2 Background on logging adjacent to the Iqwa area

Prior to colonisation and the introduction of missionaries many communities lived within the forest area and were acutely aware of all the *tabu*⁶ areas, ancestor worship, (*tabona adalo*⁷) folklore legends of giants and other mystical beings within the forests. This cultural significance of land and nature in Iqwa, highlight how Indigenous knowledge systems play a pivotal role. More specifically, Martin Suafunua, (Iqwa male elder and ranger), speaks of how in the early 20th Century his father and other members of the Iqwa tribe resided permanently within the forest areas adjacent to Iqwa. However, it was not until the presence of Christian missionaries in the area that tribal members of Iqwa relocated from within the forest to the more coastal and accessible location it stands today. Martin describes the reason for this relocation and establishment of a new settlement was a byproduct of religious conversion from ancestral religion to Christianity as it enabled closer geographic proximity to a mission station and church, access to regular worship within a church and to Christian missionaries who could guide them on their religious education and journey, that would eventually become a cornerstone of Malaitan identity. Academics such as Black (1956, p. 139), Burt (1994, p. 7)

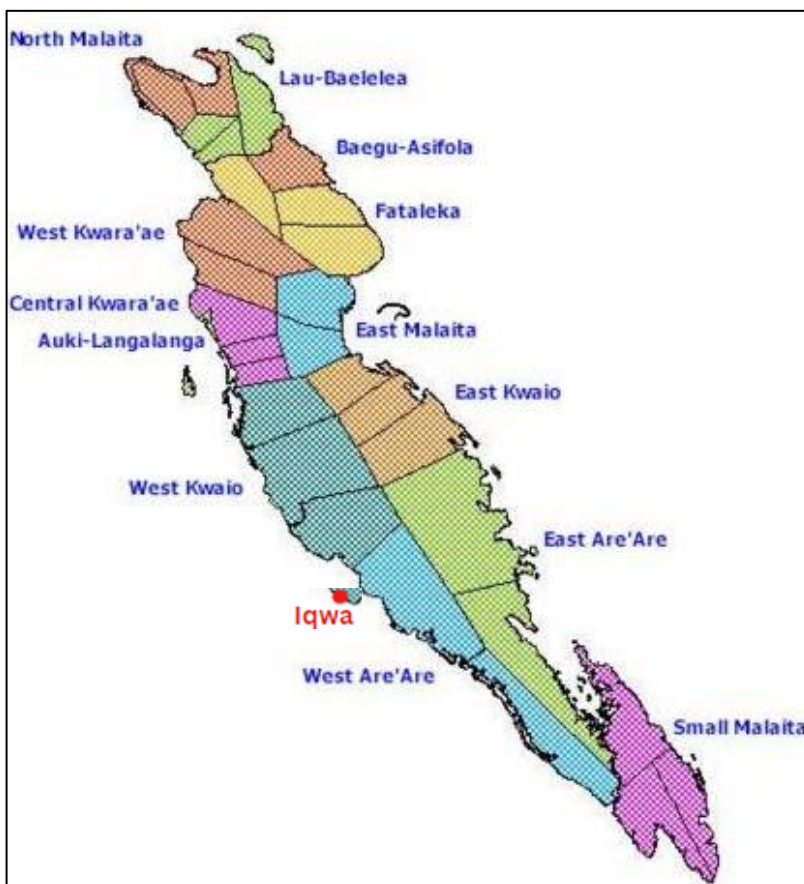
⁶ Tabu: see Pijin Glossary

⁷ Tabona adalo: see Dorio Glossary

and McDougall (2019, p. 414) reference Christianity influenced relocations of tribes in the Solomon Islands as described by Martin. From my conversations with elder male members of the community, it is unclear if this relocation was voluntary, influenced by the benefits the mission stations offered, such as education and healthcare, in addition to economic opportunities or, if there were elements of coercion. This historical context is relevant because it highlights the multifaceted significance, history, and connection to identity the land has for many Iqwa community members.

To provide further context on the Iqwa settlement and the Leileigela land area, which is an area of the tribal lands of the Iqwa people please refer to Figures 5.1 that pinpoints Iqwa on the map of Malaita and Figure 5.2 that presents a Geographic Information System (GIS) map of the Leileigela land.

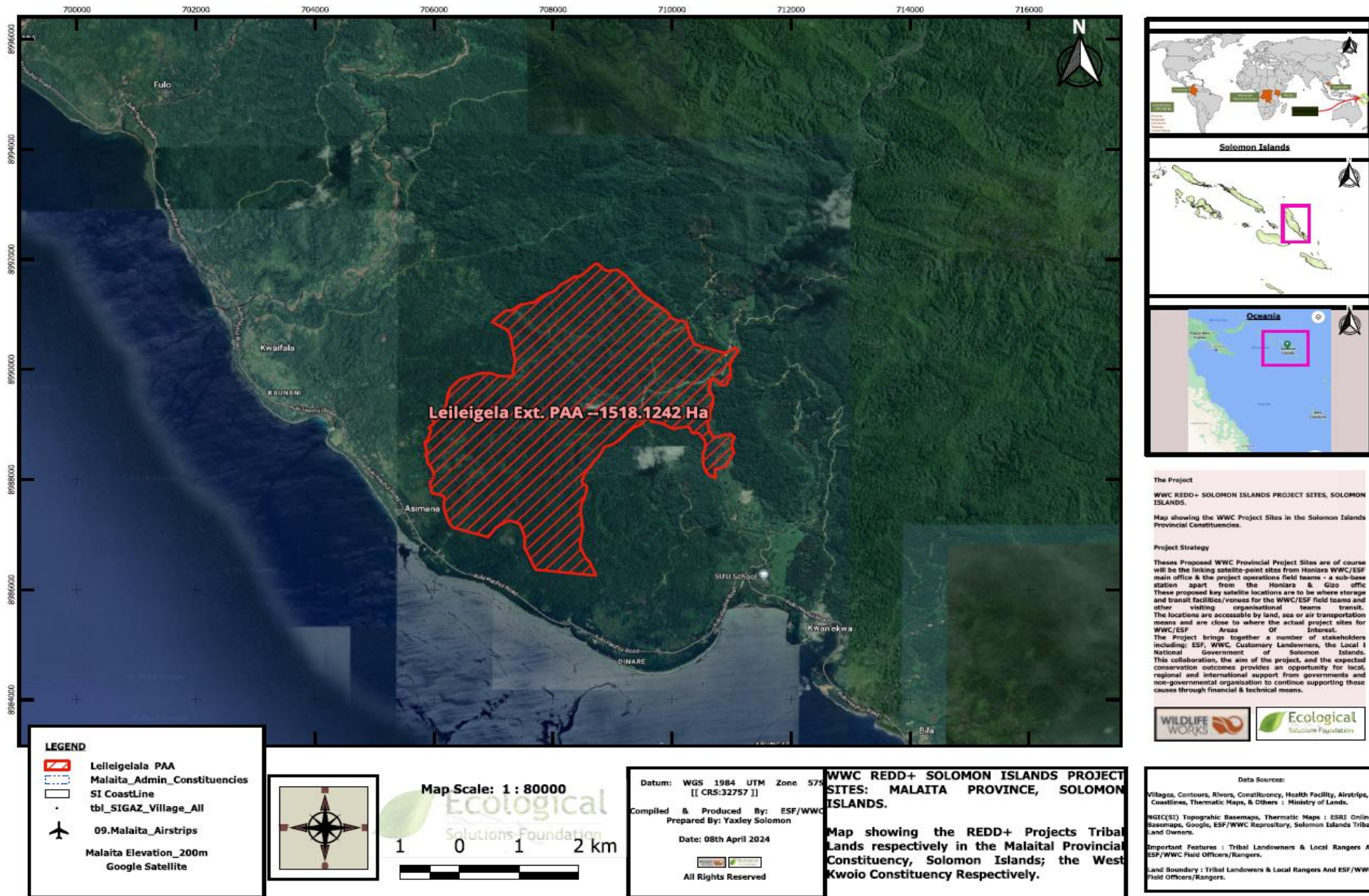
Figure 5.1: Iqwa Location, Malaita Constituencies



Source: Drylramo, (2008) and Author (amended to pinpoint location of Iqwa).

Figure 5.2: Leileigela Conservation Area GIS Map

Source: Wildlife Works Carbon (WWC) / Ecological Solutions Foundation (ESF). (2024). WWC REDD+ Solomon Islands Project Sites: Leileigela Protected Area Application



As stated in Chapter 2, commercial logging operations began on customary lands in the Solomon Islands in the 1980s. As such, based on discussions with Alfred Afeau (licensee/license holder and Iqwa tribe member) and Primo Afeau (Iqwa village elder and legal representative) living memory serves that commercial logging operations commenced on customary land owned by Iqwa tribal members in the early 1990s.

As summarised by Martin (Iqwa village elder and ranger), and verified by conversations throughout my fieldwork, Malaita is a patriarchal society and as such, men hold the power for logging related decision making. Such power includes the responsibility of logging licensees to manage the liaison with logging companies and landowners, contract negotiations and royalty payment receipt and distribution by male community elders. I interviewed Iqwa tribe member and current timber licensee (since 2004) Alfred, on the 13th of April 2024 on a beach in Bona, West Kwaio, next to an overgrown logging pond, that is no longer in use and down from the old port where barges and tugboats would come to transport the round logs for export. Alfred (license holder) explained that there were several logging operations in the area ranging from 1992 to 2019 and made specific reference to a logging operation by prominent Indonesian owned Golden Springs International⁸ logging company in 1995. Alfred proceeded to describe how over the years, various logging companies repeatedly moved in and out of the area, dependent on contract negotiations with landowners via the license holder/s and availability of virgin forest land (*kwaena*⁹) or harvestable secondary forest, or regrown land that is ready to be felled again. In reference to previously cleared land that may subsequently be logged again. A pro logging anonymous participant exclaimed how “*trees blo iumi lo hia hem grow fastaem*” meaning the trees harvested for timber here grow fast. The anonymous participant said they have a 10 year cycle, whereby after 10 years of regrowth areas are able to be logged again. The tree species predominantly produced in Iqwa, West Kwaio area as confirmed by Alfred is Akwa (*Pometia pinnata*). Thomson and Thaman (2006) verify that the Akwa species does have a fast growth rate and grows rapidly, however this is more to the rate of one to two metres per year. Jaques (2020) refers to how majority of the timber species

⁸Frazer, (1997 “In 1990 Golden Springs International bought into a local company, Waibona Sawmilling Association, and started logging in West Kwaio. The company bought out Kayuken Pacific Limited, in 1991 and became the largest operator in the province [Malaita] (p.62) . An ombudsman found Kayuken guilty of illegally obtaining a logging license for the West Kwaio area in 1986 under political pressure, despite irregularities including excessive quotas and suspected forgery, yet no action was taken against the company or implicated officials.(p. 52).

⁹ Kwaena: see Dorio Glossary. Virgin rainforest

exported, of which Akwa is one, takes approximately 75 – 80 years to grow and fully regenerate.

When logging operations commenced in Iqwa, the concept of conservation and the impending disastrous impacts were not as widely understood as they are now, and they were certainly not communicated to customary landowners and their communities by hopeful logging companies. There was little oversight and regulation by the SIG to impose requirements that prioritised the benefits of the people and the health and sustainability of forests and environment (Frazer, 1997). Primo Afeau (Iqwa village elder and legal representation) explains how throughout the years, there were instances of logging companies making promises of replanting and development programs for local communities, but that many of these promises went unfulfilled.

5.3 Iqwa people's attitudes to and involvement in logging

Commercial logging operations and practices in the Iqwa region have had profound and multifaceted impacts on the community, encompassing economic, environmental, social, and gender-related consequences. While a general consensus of the views are in support of a permanent stop to commercial logging operations within the region, a minority, primarily men, based on collected interviews, argue for its continuation to utilise 'idle' lands for economic benefit. This section explores the community member's attitudes towards logging, in conjunction with an exploration of the diverse roles and involvement community members have had with commercial logging operations. within the community from logging worker, camp housekeepers/*haos gele*, license holders, assigned 'logging chiefs' who mediate logging-related disputes and so on.

Before delving into the specific influences of community attitudes to logging, of the community members I interviewed and had conversations with, there is a general view that emphasises the importance of land conservation, even in the face of economic challenges . This view is summarised by Martin (Iqwa village elder and ranger) who discusses the desperate need for the SIG to work harder to provide alternative development opportunities. Martin elaborated on these views with me in English, as per the quote below:

No one 'likes' logging. People do not necessarily 'like' logging, they 'like' the money. The problem is that the government is not planning and implementing development projects and programmes for the development of our people, so people will always take the quick alternative of money from logging in order to meet our needs of feeding, clothing and educating families. If the government provided more projects and more sustainable projects, I do not think there would be such a push and support for logging, especially amongst men, who make the key decisions. It is not the logging; it is the money. But the government is not doing more because they are receiving money from the logging companies through taxation etc.

Martin Suafunua, (Iqwa village elder and ranger)

Economic and Social Impacts

Based on the data collected during my fieldwork, and irrespective of whether a person was 'pro-logging' or vehemently opposed to logging, there was unanimous agreement that it has undeniably provided significant economic benefits to the Iqwa community in the past. The revenue generated from logging operations has enabled many families to pay for school fees, buy food, and afford other necessities. During my interviews and *Tok stori* session (4th April 2024) many Iqwa community members highlighted the initial positive impacts of logging, primarily economic. Primo Afeau (Iqwa village elder and legal representative) and other community members referred to the higher presence of 'cash flow' in the community and how when logging operations were active there was more available money as a direct result of royalty payments. Logging also created byproducts such as employment opportunities for low-skilled labour roles for young men and provided a consumer market for local products sold by women, such as coconut oil and vegetables (*Tok Stori* session, 4th April 2024). However, Martin Suafunua and Patrick Maudua, both rangers and male elders of Iqwa, share, that a major concern is that these economic benefits were not evenly distributed, as described in Chapter 2. A key experience of many women within the community is that there is no actively practiced formal framework or process on how logging royalty payments are to be distributed, and they are controlled by a smaller group of male landowners, leading to unequal distribution and internal conflicts within the community. This caused "*problems lo tribes,*" (internal conflicts) and disharmony among community members, with bad feelings and distrust even among close relatives. Many women in the community reported feelings of

resignation and an awareness that as a woman their royalty payments will never be significant. Betty Onoia, a female Iqwa community member, who is not a ranger describes:

Time company hem waka royalty, daddys, uncles hem no sa sharem gud witem mifala, taem orta sharem kam hem big wan nomoa but taem hem kam lo mifala hem smol for gud, so mifala no needem company as royalty hem no kam lo mifala anyway

When the royalties are distributed to the male community members, they do not evenly share with the women, and when they do the payment is very small, irrespective of the value of the payment. Therefore, we do not need logging, as we do not receive worthwhile payments anyway.

Betty Onoia (female Iqwa community member)

Martin , (Iqwa village elder and ranger) elaborates on this point and describes how royalties are unevenly distributed by “husbands and brothers” and they often do not factor in women’s opinions or evenly distribute the royalties to them, therefore women are not having a say in how the income is distributed and prioritised within the home and the community, highlighting the gender-based inequalities in decision-making and benefit distribution from logging operations

The influx of cash from logging royalties changed cultural norms among younger community members, leading to behaviours not traditionally accepted, such as alcohol consumption and inappropriate relationships with foreign logging workers (Martin Suafunua, interview). Social disruption includes reports of *kwaso*¹⁰- (alcohol) fuelled violence, disrupting family and community dynamics.

Despite these issues, the short-term financial gains from logging were significant enough to cause a dependency on this source of income, leading to economic instability when logging operations ceased. The *Tok stori* session held on the 4th of April on the dependency on this inconsistent form of income was discussed and referred to as a “Quick money mindset”, “*Easy money lo logging*” (easy source of income from logging) and a heavy reliance on it as a form of income: “*Mifala ting selen hem stap olowe*” (We think the money will always be

¹⁰ *Kwaso* : see Pijin glossary. Alcohol, illegal homemade brew in Solomon Islands.

there). Betty Onoia, a local mother not directly involved in logging, recounted a common impact she had observed related to children's food preferences, and how *pikinini* (children) had grown accustomed to "*kakai lo white man*" (international food). Betty clarified that when cashflow from logging was circulating the community, many mothers had grown accustomed to this income and the new varieties of non-local and imported foods such as rice, tinned fish, ramen noodles and crackers this cashflow allowed them to purchase food from local stores, rather than food sources grown and produced themselves. However, as the cashflow reduced as logging activities saw a downturn in Covid-19 times and mothers within the community needed to turn to the more traditional and self sustaining food sources, which Betty referred to as "*home kakai*" (locally grown and produced food) such as yams, taros and potatoes. This was met with much resistance from the children who cried and protested this food in favour of the "*food lo store*" (another way of implying international, imported food items) that they had grown accustomed to. This income resulted in a change of tastebud and food preferences.

Environmental Degradation

There was unanimous agreement that there is an irrefutable connection between commercial logging and environmental damage. This attitude is represented by the numerous community members first hand accounts of these environmental impacts shared during interviews and *Tok stori* sessions. For example, they observed that the frequency of flooding has increased, and the water is no longer as clean as it was before logging. Landslides have become more common, altering the landscape, and making it difficult to grow food crops. Logging activities led to the depletion of nut and sago palm trees, essential resources for the community for consumption and home building supplies. Further environmental impacts of logging reported by participants are presented in Table 5.1. Please refer to Figures 5.3 and 5.4 of a log pond and logging road (respectively), that show the dramatic change in landscape and environmental degradation logging operations cause, below that an insight into some of the environmental degradation is depicted. These environmental changes have had a profound effect on the community's ability to sustain their traditional ways of life and meet practical needs. Martin (Iqwa village elder and ranger) elaborated on the reduction in bush materials made it difficult for community members to build local houses, where previously there was an ample supply of building materials for community members to build their own homes on customary land, as their right.

Table 5.1: Observed Environmental Impacts of Logging from Iqwa community members

Environmental Impact	Interviewee(s)	Date (2024)	Background/Role
Water Pollution and Damage to Water Sources			
Contaminated water supply when trees are felled near rivers and streams, which damages fresh, clean water sources. Rivers and streams become muddy and polluted, making the water unsafe for drinking and daily use.	Florence Kwaina'ala, Monica Ta'afuni	3-Apr	Original self-appointed women rangers
Observation that in living memory, water is no longer clean as before	Patrick Maudua	5-Apr	LCG Ranger
Deforestation and Loss of Biodiversity			
Diminished nut trees (e.g., Ngali nut, cash crop for some families) and sago palm trees, used for house and roof construction	Primo Afeau	29-Mar	Village elder, Legal representative
There is less land to cultivate for gardening so the women must find alternative sites not damaged by environmental destruction of logging. When lands are cleared it makes it harder for women to find and clear lands for cultivation and for gardening, growing plants and vegetables that are for family consumption but also to sell for additional income.	Patrick Maudua	5-Apr	LCG Secretary Management Committee and Ranger
Deforestation leading to a loss of biodiversity - less sounds of native birds and animals	Florence Kwaina'ala, Monica Ta'afuni	3-Apr	Original self-appointed women rangers
Introduction of an invasive foreign species, not native to Malaita i.e. <i>nila grass</i> (needle grass) brought in on logging company machinery	Martin Suafunua	8-Apr	Village elder and ranger
Forests diminishing causing landscape changes	Florence Kwaina'ala, Monica Ta'afuni	3-Apr	Original self-appointed women rangers
Increased Flooding and Landslides			
Increased flooding frequency due to the loss of trees that previously absorbed rainwater and stabilised the soil.	Primo Afeau	29-Mar	Village elder, Legal representative
Increased frequency and severity of landslips post presence of logging	Patrick Maudua	5-Apr	LCG Secretary Management Committee and Ranger

Environmental Impact	Interviewee(s)	Date (2024)	Background/Role
Irregular rain patterns and unseasonable heavy rains	Andrew Alasuka	8-Apr	LCG Ranger
Soil Quality Degradation			
Soil quality degradation making it hard to grow food crops	Patrick Maudua	5-Apr	LCG Secretary Management Committee and Ranger
Soil contamination, high landslides frequency and logging impacting on soil quality	Martin Suafunua	8-Apr	Village elder, Ranger
Infrastructure and Landscape Damage			
Roads and bridges built by logging companies have deteriorated without maintenance, after the logging companies have left, causing travel difficulties for locals	Primo Afeau	29-Mar	Village elder, Legal representative
Damage to existing roads due to repeated use of heavy logging company machinery	Andrew Alasuka	8-Apr	Ranger, Leileigela Conservation Group
Logging Companies' Negligence			
Lack of sustainable replanting and forest management by logging companies	Josephine Maduka	12-Apr	LCG Ranger, Former Housekeeper in Camps
Logging companies encroaching on tabu (sacred) areas	Florence Kwaina'ala, Monica Ta'afuni	3-Apr	Original self-appointed women rangers

Figure 5.3: People crossing log pond, Waisisi, West Are'Are 2017.

Source: Minter (2021)



Figure 5.4: Logging Road, Marasa, Guadalcanal, 2019.

Source: Jaques (2020)



Gendered Differences in Perceptions and Approaches

There are significant gendered differences in perceptions of logging impacts and approaches to environmental protection. During my conversations with women throughout my research it became apparent that while Iqwa society is not as traditional in its strict gender division on allocation of domestic labour, as it was in the past, there are still roles that tend to weigh in the realm of women more so than men. Florence Kwaina'ala discussed how women are generally responsible for the maintenance of subsistence gardens and cash crops, (see Figures 5.5 and 5.8 that display the subsistence style gardens in Iqwa), child rearing and food preparation for the family (see Figure 5.6 that shows a young girl returning from helping her mother in their subsistence garden, with a bag full of local potatoes), in addition to handicraft productions such as woven bags and fans (see Figure 5.7 that shows Monica, first self-appointed women ranger, weaving a fan with locally sourced materials). This view of gendered roles within society and environmental relationships aligns with Scheyvens' (1998a) finding in Malaita that "women were thought to have a greater concern for the future of the children they bore, were 'less greedy' than men and were more reliant on natural resources for their roles" (p. 440).

Figure 5.5: Iqwa woman's subsistence garden



Figure 5.6: Young girl returning from helping her mother in their subsistence garden



Figure 5.7: Monica Ta'afuni making handicrafts/fans with products sourced from the bush



Figure 5.8: Iqwa women, Miriam and Betty working in their neighbouring subsistence gardens

(Casava plants, a local crop, pictured)



Source: Author

In addition, attitudes to logging may differ between the genders, as women do not have a say in logging contracts or royalty distribution, sometimes leading to gender-based conflicts and unequal benefits. Florence Kwaina'ala and Monica Ta'afuni (self-appointed women rangers) noted that women do not often have a say in logging contracts and there have been no women licensees to their knowledge, thus some women are not as steadfastly supportive of logging remaining for the economic benefits compared with men, as they did not receive much in terms of royalty payments anyway. An anonymous participant described how from her perspective the positive elements of logging were fleeting thus if they didn't have any logging operations in the future it would be a good thing.

Women have been pivotal in conservation efforts. One such Iqwa woman who shared this anti-logging attitude is Josephine Maduka, Florence Kwaina'ala's sister. After her husband sadly passed away, she had a family of young children to support and put through school. As such, she worked as a *haos gele*¹¹ in logging camp accommodation houses all over the Solomon Islands, across the Western, Guadalcanal and Malaita provinces. She was at the forefront of

¹¹ *Haos gele*: Is the Pijin word for a house girl or domestic worker, a role traditionally filled by women. According to Pollard (2000) and Jourdan (2017) it is one of five main types of women employment in Honiara.

observing the social implications of logging operations on communities, which included sexual exploitation of young women, alcohol abuse and unwanted advances and subsequent threats that followed because she did not reciprocate those advances. Upon Josephine's return to Iqwa, she assisted Florence and Monica with their conservation efforts, motivated by a desire to protect the land and secure an alternative sustainable future for her children, despite the challenges of finding ways to make money after logging operations ceased.

Corruption within the enforcement of logging regulations has compounded the negative impacts on the Iqwa community. Logging companies often bypass environmental and social safeguards due to corrupt practices among enforcement officers (Katovai et al. 2015; Kabutaulaka, 2005). An anonymous participant referred to how despite there being a Forestry Act, many officers hired to investigate contractual and boundary breaches of the logging companies turn a blind eye and succumb to bribery. This corruption hinders accountability, leading to ongoing environmental degradation and social conflict.

In summary, the Iqwa community's attitudes towards logging are shaped by a complex interplay of economic dependency, social conflicts, gender disparities, and corruption. While logging has brought some economic benefits, it has also led to significant environmental, social, and gender-related challenges. The community's preference for conservation and sustainable practices reflects a desire for a more equitable and sustainable future.

5.4 Background and Objectives of the self-appointed Iqwa women rangers (IWR) and the Leileigela Conservation Group (LCG)

The conservation efforts of the self-appointed women rangers can be traced back to 2015 with Monica Ta'afuni, who spearheaded the movement in the early stages. Prior to this, Monica had not been exposed to the concept of conservation, in the way it is perceived by the Western world. For many years though she observed the detrimental impact logging had had on the lands and water sources around her but was not yet aware of the external movements around the world promoting the importance of environmental protection. In 2015, Monica came across a relative who shared with her the environmental and cultural conservation efforts that were taking place in the neighbouring East Kwaio, with the Baru Conservation Alliance (BCA) in conjunction with the Kwainaa'isi Cultural Centre, which is a community led initiative focused on

“ecological conservation, education and cultural rejuvenation in the Solomon Islands” (Flannery, 2019). This introduction was the catalyst for Monica to move forward with her own efforts and her desire to learn more about conservation from other groups who had done the same in Malaita. Later in 2015, Monica visited the BCA for a “look and learn” trip to learn more about conservation and gain insights into how they started and operated. This newfound knowledge ignited a passion for conservation and provided her with the foundational knowledge and support needed to progress with conservation efforts.

Monica’s outreach efforts played a critical role in expanding the group, as she recalled how One Sunday after church service, she shared her newfound knowledge about conservation with other women in the community. This informal gathering became the catalyst for broader female community involvement. Monica’s enthusiasm and the compelling need to protect their land resonated with the women, who then decided to join her efforts. At this point Judith Boifuana, Florence Kwaina’ala and Jacinta Bila began to regularly venture into the customary lands, often with their small children in tow. Judith Boifuana recounts walking into the bush with her then 7 month old Royola, tied to her back with a *lava lava*, and a machete in one hand to help clear the track. Pictured below are Monica Ta’afuni the first self appointed women ranger and Florence Kwaina’ala and Judith Boifuana, who are part of the core group of self appointed women rangers (Figure 5.11), in addition to a picture of Martin Suafunua (Iqwa village elder and ranger) and Philemon Maudua (LCG Coordinator) with the original women rangers, pictured within the Leileigela Conservation Area.

Figure 5.9: Original self-appointed Iqwa women rangers :

Monica Ta'afuni, Florence Kwaina'ala, Judith Boifuana. Pictured in Leileigela Conservation Area



Source: Author

Figure 5.10: IWR/LCG Rangers

Judith Boifuanam, Florence Kwaina'ala (original self-appointed women rangers), Philemon Maudua, (LCG Go-Ordinator) Monica Ta'afuni (Founding member of IWR/LCG), Martin Suafunua (Iqwa elder, male ally and ranger)



Source: Author

The group of self-appointed rangers began as a small informal grassroots group. Initially, their efforts were centred around land beautification and maintenance, with women and their children planting *aihi* (trees) and flowers, caring for the land in an area of customary land known as Leileigela. These early activities were not just about environmental conservation but also about fostering a deep connection to the land among the community's younger generations. Florence Kwaina'ala highlighted the dual purpose of their work: not only were they protecting the environment, but they were also creating valuable learning opportunities for the community, particularly for women and their children. With limited employment opportunities in the area, especially for their children returning from high school education, the conservation efforts provided a constructive and empowering avenue for women to contribute meaningfully to their community.

The phrase "*Land blong iumi*" (Our land) was a recurrent concept within the fieldwork data and emphasises the collective ownership and genealogical connection to the land. This resonates also with Monica Ta'afuni's (first self-appointed women ranger) analogy of the land below that encapsulates the emotional and cultural drive behind the rangers' conservation efforts and demonstrates the deep-rooted connection to land that underscores the fundamental belief that guides their actions:

Ground (wado) nao mummy blo iumi, sapos mummy blo iumi logging hem destroyem, den hem bae no save feedim iumi kakai. Water (kafu) hem blood (abu) blo hem, olgeta tree hair blo hem, an olgeta stone (fou) bone blo hem... wat nao bae happen sapos logging hem destroyem mummy. Land (fu'a) hem olsem mummy (tete'e) and daddy (mama'a) blo mi, taem mi dae, babae body blo mi go baek lo ground wea bae olgeta keepim mi gud

Translated to English: The ground is our mother, when our mother, the ground is destroyed by logging she can no longer provide food for us. The water represents our mother's blood, the trees her hair, the stones, her bones and what happens when mother earth is destroyed by logging. The land is like our mother and father, and when I die, I will return to the land, and they will care for me. (Monica Ta'afuni, first self-appointed women ranger).

Furthermore, from the outset, the main objective of the IWR was to protect their ancestral lands from the detrimental effects of logging, ensuring the preservation of these natural resources for future generations.

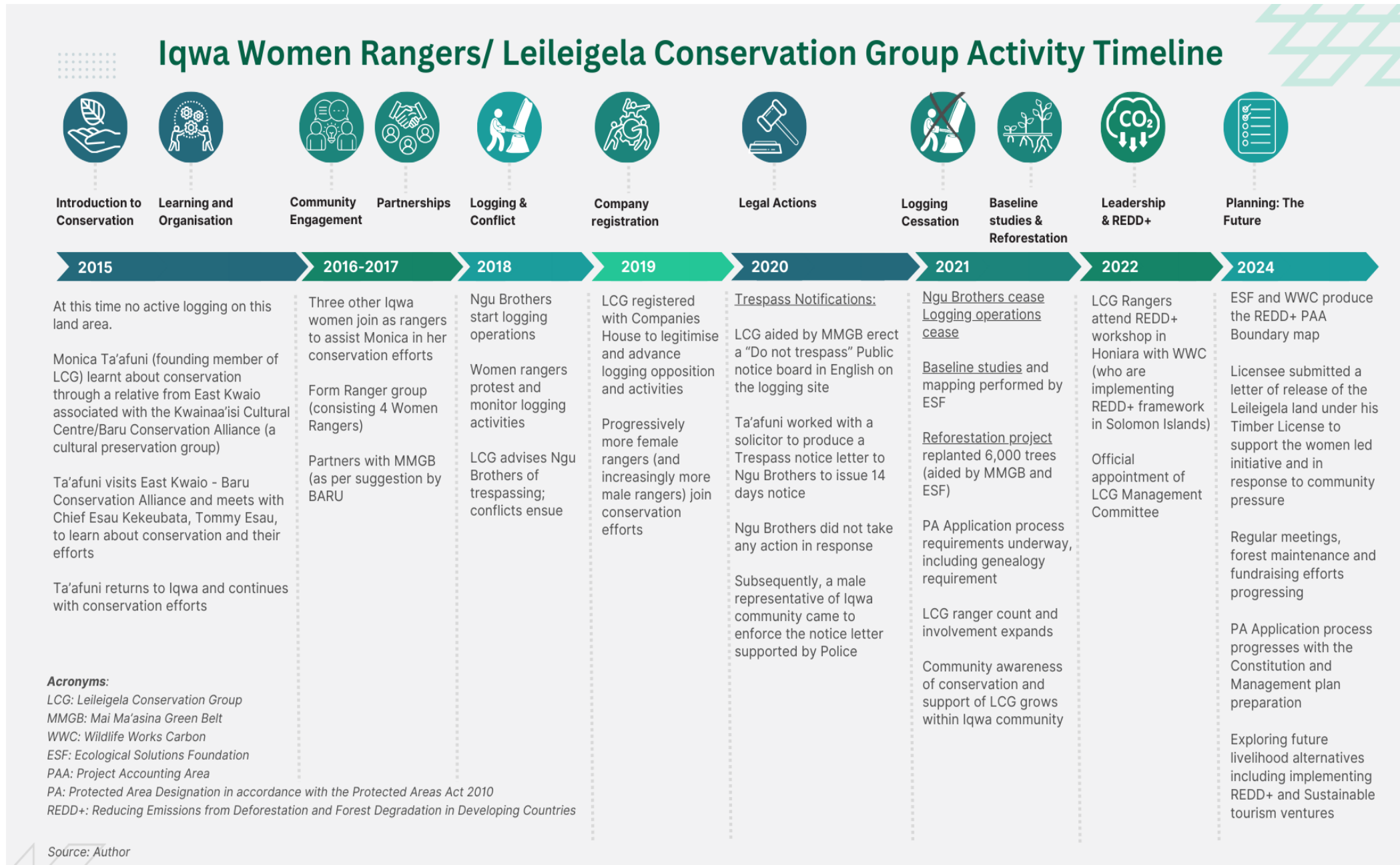
The group's efforts were initially peaceful and community-oriented, involving reforestation projects and maintaining the natural beauty of the land. However, in 2019 this peaceful phase was disrupted when a logging contract was signed, and logging operations began in the area. This will be detailed in the next section.

5.5 Strategies and Activities

The escalation of the women rangers' activities from peaceful protests to more confrontational tactics like legal challenges marks a significant shift in their strategy. The IWR's journey was initially fraught, with scepticism and ridicule directed at them by other male community members. Many community members doubted the effectiveness of a group of women with no formal education in tackling such a significant issue. Florence recounted, how *"They doubted us because we were not educated, but we proved them wrong."* Over time, as their persistent efforts began to show tangible results, the initial scepticism turned into support, reflecting a shift in community attitudes towards the importance of conservation.

The following section will outline the key events surrounding the inception of the self-appointed women rangers in Iqwa, key achievements and activities and their evolution into LCG (Please refer to Figure 5.11 for a timeline of these events). In 2016, The women rangers' were introduced to The Mai Ma'asina Green Belt (MMGB), a non-profit organisation, that is dedicated to community led conservation and promotes forest management, wildlife protection, and cultural preservation in Southern Malaita Province, Solomon Islands, through community networks and collaboration with local and international organisations. Over the forthcoming years news of Monica, Florence and the other women ranger's conservation efforts started to proliferate throughout Iqwa. As conservation, a novel concept, began to gain traction and support from beyond the women rangers to other members of the community, expanding to include men supporting the cause.

Figure 5.11: Iqwa Women Rangers/ Leileigela Conservation Group Activity Timeline:



In 2018 Ngu Brothers, a logging company armed with a Standard Logging Agreement to fell trees in the Leileigela land area, negotiated and signed by landowner representatives and licensees began operations. This commencement of logging operations marked a significant turning point for LCG. The informal grassroots group of self appointed rangers had to shift from their conservation activities to more assertive measures to combat the environmental degradation caused by logging. These measures included regular monitoring of the land by trekking through the forest, navigating their way barefoot and armed with machetes, ensuring that loggers in the area were acutely aware of their active surveillance of the area. These actions led in some instances to directly challenge loggers attempting to fell trees within their unlicensed customary land. Eventually, fellow male rangers built a hut within close proximity to a logging site so the rangers, namely Monica and Florence could monitor activity and stand guard over their ancestral land. They would occupy the huts for days at a time and would eventually take legal action to impose trespass allegations. As tensions elevated Monica and Florence recall the direct confrontations with loggers. They were at breaking point, observing the persistent clearing of their land. Florence recounted (translated to English):

If they did anything we didn't like we would follow them. We told them on numerous occasions to stop but they would not listen to us as women. We were tired, they wouldn't stop ruining our land, we had had enough.

Florence Kwaina'ala, (original self-appointed women ranger)

The group's resolve to protect their land only strengthened in the face of these challenges. As a result, the women rangers' expanded their strategies and activities to form the Leileigela Conservation Group (LCG) in 2019. The LCG membership consisted of a group of landowners and community members with a genealogical connection to Leileigela. One of the pivotal steps in formalising the LCG was the certification of their group, and to work towards achieving official conservation status for their land, which was crucial in legitimising their efforts and provided a stronger platform to advocate for their cause. By becoming a member group of MMGB, MMGB were able to provide opportunities for capacity building through various training sessions and workshops throughout the South Malaita region, with other member conservation groups.

A key strategy for the LCG was to spread awareness about conservation and break down the misconceptions and misunderstandings around the work that they were doing. Monica and Florence understood that mind shift was required, a departure from the transactional nature of

logging that resulted in quick financial gains to the long-term benefits supporting the communal efforts to protect the land and saying no to logging. This is because there was significant mistrust about Monica and Florence's activities in the early states, and the potential benefits they might gain from conservation efforts, especially as they began to partner with external groups. An example of this was when LCG erected a notice board stating that no logging was permitted in Leileigela (see Fig. 5.12), in a neighbouring village, Asimana, the site of the logger's encampment. Monica shared how at the time this action angered some neighbouring villagers, who tore the sign down, claiming the rangers' actions were a threat and taking away their potential income. This anger directed at the rangers' reflected the mixed responses and financial pressures from the logging company.

Figure 5.12: Leileigela Conservation Area notice board

Erected in Asimana village and in the Leileigela logging site (image below taken in the Leileigela reforestation site)



Source: Author

As stated earlier, awareness of conservation was a crucial strategy for the group, and alongside this was the notion of sacrifice. Sacrifice was recurrent throughout the data collected, specifically, Florence spoke about the sacrifices made by the rangers, particularly women for the betterment of the land and the community, emphasising that their work and the hours they put in were unpaid and driven purely by dedication “*mifala sacrifice for future blo pikinini blo iumi*” (We sacrifice now for the future of our children). This commitment was further demonstrated by their actions to halt logging operations. Monica describes how in 2021, by way of legal intervention and assistance from influential male community members, trespass orders were served to Ngu Brothers, and they eventually ceased logging operations on the land. Monica and Florence recall with joy, the magnificent sight of watching all the trucks, bulldozers and excavators come down through the forest and leave, defeated.

5.6 Achievements of the self-appointed women rangers of the Iqwa (IWR) and the Leileigela Conservation Group (LCG)

The IWR have made remarkable progress in transforming their grassroots conservation efforts into a well-organised movement with much community support. Their evolution and formalisation into the LCG as a registered group was escalated in 2019, to legitimise, formalise and gather support in their fight against newly reestablished logging activities. This has been a cornerstone of their success, bringing a structured approach to their efforts. Philemon Maudua (LCG Coordinator) shared how since the LCG formalised their organisational structure and established an operational framework, they hold regular meetings once a week to conduct fundraising efforts, and maintain the reforestation areas, remaining flexible and cognisant of all rangers' additional family obligations (see Figure 5.13). Florence shared how common it was for children to return home to Iqwa after finishing secondary school and faced a lack of employment opportunities that would help them best utilise their education. In 2021 Florence and Monica saw a need for the expanding LCG and recruited Philemon to become the coordinator of the group. Currently, their main goal is to fundraise for an office to store documentation and further organise their efforts. Establishing an office would centralise their operations, making it easier to manage documentation and plan future projects. The fundraising and building works for this project is currently underway, see Fig. 5.14 below, which shows Florence Kwaina'ala (original self-appointed ranger) and Philemon Maudua, (LCG Coordinator) and other rangers on the new office site location in the Leileigela conservation area.

Figure 5.13: LCG Rangers Meeting and Tok stori session

Held at Iqwa local school (4th April 2024)



Source: Author

Figure 5.14: Office site in Leileigela Conservation Area

Cleared land in preparation for office construction. Pictured: Florence Kwaina'ala, (original self-appointed women ranger) and Philemon Maudua (LCG Coordinator) and other rangers.



Source: Author

Partnerships with NGOs which have been instrumental in the LCG's achievements. Collaborations with organisations such MMGB, Wildlife Works Carbon (WWC) and the Ecological Solutions Solomon Islands (ESSI) have provided essential support for their activities. These partnerships have facilitated the LCG to complete baseline studies and boundary mapping, an essential task that involved detailed surveys and documentation of the conservation area, achieved conservation area status, and initiated REDD+ activities¹². Securing conservation area status was a significant milestone for the LCG. This official recognition has provided a strong foundation for their ongoing efforts, including their reforestation project in 2021 “*Mifala plantim ovam 6000 fala tree*” (We planted over 6,000 trees), a ranger proudly shared, showcasing the scale of their commitment to restoring and preserving the natural environment. These efforts have not only rejuvenated the local ecosystem but have also set a precedent for sustainable land use in the region, as the rangers continue to monitor the reforestation. In addition, the inclusion of genealogical studies, led by Iqwa village elder Martin Suafunua has also been crucial, ensuring that land ownership and usage rights are unanimously agreed, respected, and maintained.

The IWR/LCG is actively working towards obtaining Protected Area status, under the Protected Area Act, 2010, which would be a critical step in ensuring long-term legal protection for their conservation efforts. This process involves extensive documentation and collaboration with governmental and non-governmental organisations to meet the necessary criteria¹³

Furthermore, male allyship has been a significant factor in the growth and success of the self appointed rangers and LCG efforts, “*Staka man blo mifala lo Iqwa barava sapotem nao waka blo mifala fo gender equality*” (Many men from Iqwa support our efforts and push for gender equality) noted Monica. This support has not only strengthened the group's initiatives but has also helped shift community attitudes towards a more inclusive approach to conservation. The involvement of men, from village elders to younger community members, has amplified the impact of the Rangers' efforts. Philemon explained how the younger community members that have had some education and learned of Florence and Monica’s conservation efforts were aware that this was a positive action and endeavour. This male allyship has helped shift community attitudes towards a more sustainable approach, balancing economic needs with environmental

¹² REDD+: (Reducing Emissions from Deforestation and Forest Degradation)

¹³ Protected Areas Toolkit (SPREP) A step by step guide to creating protected areas in the Solomon Islands. (LALSU, 2013).

conservation.

The growing support from non-ranger members of the community is a testament to the effectiveness of the women rangers' and LCG's work. Increased awareness and understanding of the importance of conservation have led to broader community engagement and support. This expanding base of support has been crucial in maintaining momentum and ensuring the sustainability of their initiatives. Philemon (LCG Coordinator) discussed the LCG's goals for the future to develop sustainable tourism and expand on reforestation efforts.

In summary, the IWR have successfully transitioned from grassroots activism to a structured and strategic conservation movement. Their achievements in formal organisation, land conservation status, reforestation, and community engagement highlight their dedication to protecting their ancestral lands and empowering their community. Through their partnerships, baseline mapping, and growing support, they continue to set a powerful example of how local communities can drive positive environmental change and sustainable development

5.7 Conclusion

This chapter has explored how the self-appointed women rangers (IWR) and subsequently the LCG have demonstrated the power of grassroots conservation led by women, and highlights the importance of inclusive, women led and community-driven approaches to environmental protection. A summary of the historical context of logging in Iqwa revealed the economic benefits and severe environmental and social consequences of logging in the area was provided. This chapter examined the community's diverse attitudes towards logging, noting significant internal conflicts over unequal royalty payment distribution and female decision making power. The grassroots activities of the self-appointed women rangers in Iqwa, led by Monica Ta'afuni and Florence Kwaina'ala, established strategies to challenge illegal logging and their achievements include successful conservation efforts, increased community support, and vital partnerships with NGOs to advance their movement.

Chapter 6 - Enabling and Disabling Conditions to the Activities of the self-appointed women rangers of Iqwa (IWR) and the Leileigela Conservation Group (LCG)

6.1 Introduction

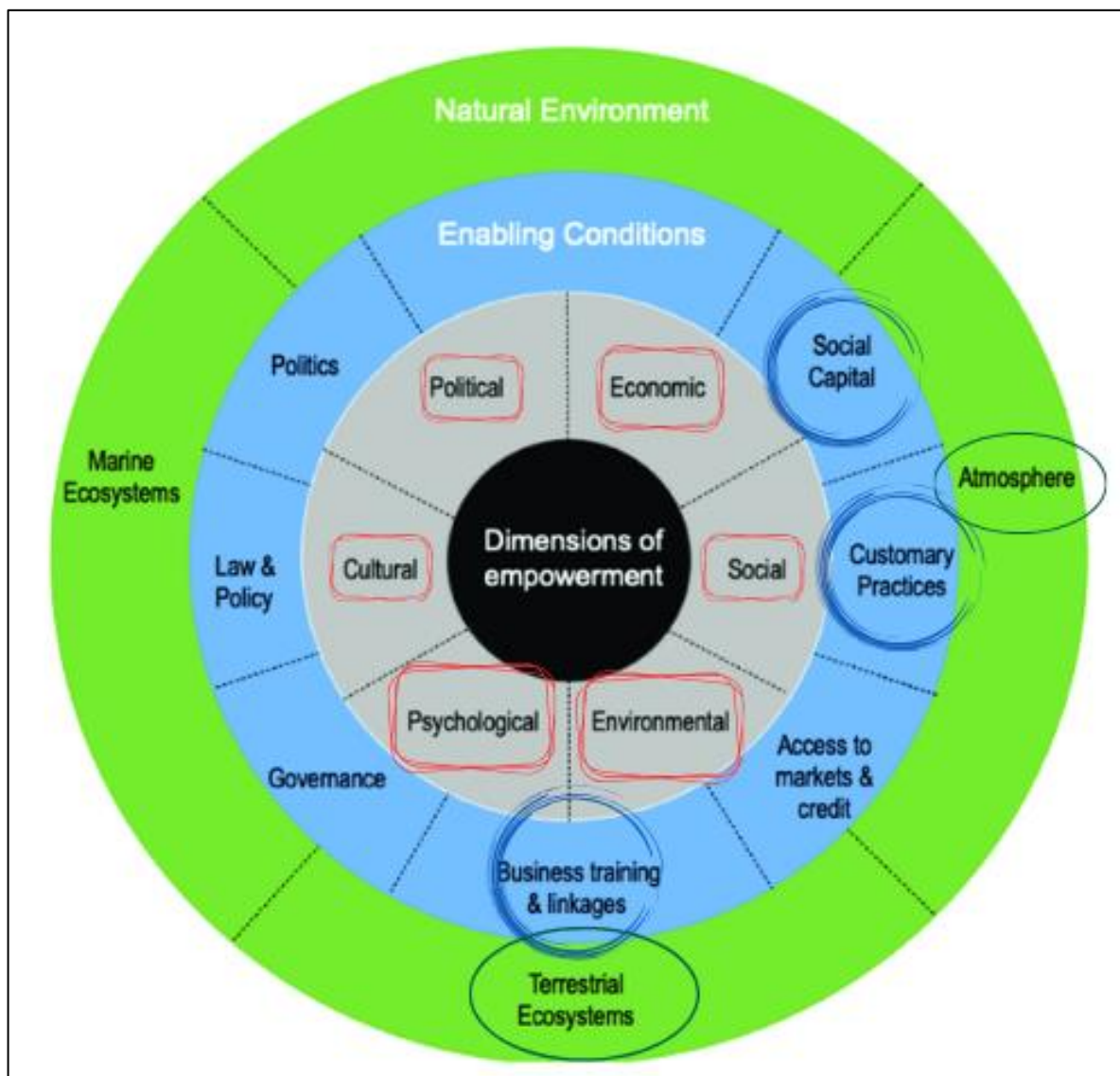
The Empowerment and Sustainable Development (EASD) Framework (Figure 6.1) is highly relevant to community led conservation efforts, and specifically the IWR/LCG's efforts, as it "provides a more holistic depiction of sustainable development" (Scheyvens and van der Watt, 2021, p.7). Essentially, it presents all activities within the economy and society occur within the confines of the natural environment and that the economy is an equal part of society that functions to benefit it, as opposed to developing to the detriment of society. The EASD framework centres around the idea that empowerment is crucial for achieving sustainable development. The framework suggests a 'nested circle' approach with seven enabling conditions that facilitate the empowerment of communities: social capital, customary practices, access to markets and credit, business training and linkages, governance, law and policy, and politics. The framework is particularly relevant to community-based conservation efforts like those of the IWR/LCG as it examines both the enabling and disabling conditions that have influenced their activities and helps to understand how empowerment can be achieved and sustained through strategic support and adaptive strategies that align with local contexts. To address the application of Scheyvens and van der Watt's (2021) framework to the IWR/LCG, it is essential to outline the key aspects of the framework, then apply and adapt it to show the enabling conditions that are particularly relevant to IWR/LCG's activities.

6.2 Application of the Theoretical framework: Empowerment and Sustainable Development Framework

The relevance of the framework to the IWR/LCG can be seen through their practical application of these enabling conditions and dimensions of empowerment and how these elements influence their grassroots conservation efforts and community mobilisation. I have examined all elements of the framework for relevance to the IWR/LCG's initiatives and efforts and selected those that are most significant to discuss based on my research findings.

The three most significant enabling conditions are social capital, customary practices, business training and linkages. All six dimensions of empowerment: economic, social, environmental, psychological, cultural and political are of relevance and will be explored. And finally, the two more relevant elements of the natural environment for further analysis are terrestrial ecosystems and atmosphere. Please refer to Figure 6.1 below which circles the specific elements of the framework that will be analysed in this chapter:

Figure 6.1: Empowerment and Sustainability Framework : Relevant elements for analysis



Source: Scheyvens and van der Watt (2021)

6.2.1 First Outer Ring: Enabling Conditions

Social capital

Social capital has been a significant enabling condition for the LCG. As community awareness has grown over time within the Iqwa community, Monica and Florence (original self-appointed women rangers) were able to lean on their strong community networks and support systems to raise awareness of conservation, expand their capacity to form a much larger actively engaged group of rangers, expand beyond women's involvement in the initial stages and encourage male involvement and male allyship¹⁴ and support in their efforts. The expansion of the LCG in a less intimidating social/familial setting provides the rangers with the resources and opportunities necessary for empowerment. These social networks have facilitated collaboration with NGOs, community groups, and other stakeholders, enhancing the rangers' capacity to carry out their conservation activities. Being aided by the deep understanding of local customs and environmental knowledge has fostered community trust and engagement, further strengthening social capital. Furthermore, the partnership with MMGB enabled bridging social capital opportunities, with an example of the Kira Forest Biodiversity Conservation Area,¹⁵ in neighbouring East 'Are'Are, that was declared a Protected Area (PA) under the Protected Areas Act 2010 in November 2023, (SIG, 2023b) which is the same goal LCG are actively working towards

Customary practices

Customary practices have also played an important role. Leveraging and respecting customary practices in the community ensures that conservation efforts are culturally sensitive and supported by traditional leaders. This cultural respect fosters community buy-in and sustains conservation initiatives. Such examples of these customary practices are essential for when rangers, particularly female rangers' *waka lo bush*.¹⁶ (work within the forest area). These include, ensuring an awareness and respect for 'tabu' sites in the forest areas, whereby *kastom* knowledge of these sites requires that women avoid them as they are traditionally the domain of male elders, where ancestor worship was performed by male elders for generations. In addition, it is *kastom* that women always tie their hair up and not leave it hanging loose

¹⁴ A theme that explored in more detail in Chapter 7.

¹⁵ This example of Kira tribal land, as explored in further detail in Chapter 2.

¹⁶ Forest area and conservation land is commonly referred to as *bush* in Pijin.

whenever they are spending time in the bush. Another important customary practice in empowerment for the LCG movement is the knowledge of specific sacred plants and fruits that are not customary to eat and should be avoided, such as the orange coloured ‘bush banana’. Martin Suafunua (Iqwa village elder and ranger) explained that consumption of these fruits was preserved for the giants that roam the bush area, as per local legend.

Business training and linkages

Business training and linkages have been essential in providing the LCG and community members with the necessary skills and connections to legitimise their organisation, develop conservation initiatives and eventually enhance economic opportunities. However, one slight modification for the application to IWR/LCG’s efforts is for the term ‘Business’ training be changed to ‘Technical’ training, because in this case it is not directly related to business. Partnerships with organisations, most impactfully Mai Ma’asina Green Bely, have facilitated further connections with other NGOs and ecological service providers, and capacity building opportunities through various training in business skills and proposal production. Education and awareness programs facilitated by MMGB and REDD+ have enhanced the LCG’s members’ understanding of sustainable practices and conservation benefits. This continuous community education has been critical in shifting community attitudes towards conservation and has allowed LCG to not only explore sustainable economic activities that align with their conservation goals but also see tangible examples of other Community-Based Organisations (CBOs) around them achieving their conservation and sustainable development goals. Examples such as the Kira Forest Biodiversity Conservation Area, in neighbouring East ‘Are’Are, obtaining PA status in 2023 (as mentioned in the previous section). These connections and external partnerships with NGOs, governmental agencies, and international bodies have provided technical, financial, and strategic support. These partnerships have been instrumental in building the LCG’s capacity and enhancing the legitimacy of their conservation efforts, whilst enabling them to initiate the steps required to progress towards a more environmentally sustainable and resilient local economy, in contrast to the previous decade’s reliance on logging royalty payments to fuel the local economy and address community members needs.

While the enabling conditions of access to markets and credit, politics, law and policy and

governance are relevant, they are less central to the LCG's case to date. **Access to markets** and credit is more applicable to economic activities focused on entrepreneurship and market integration, which are not the primary focus of the LCG's conservation efforts, but they will be in due course as they explore alternative sustainable income sources. **Political stability and Law and Policy** as enabling conditions, while important, have not yet been as prominently highlighted as key enabling conditions. Significantly, they could be viewed as disabling conditions instead. While the anti-logging sentiment and actions throughout the Solomon Islands is on the rise, especially as the visibility of more CBO's protesting logging operations and implementing anti-logging actions is on the rise, the political climate of rampant corruption within the logging sector (as explore in Chapter 5) can seem overwhelming for many as the SIG stands to make more from exported logs than the landowners, an argument discussed by both Katovai et al. (2015) and Kabutaulaka (2005). Corruption was a recurrent theme in my research, with anonymous participants sharing their observations of corrupt inspectors, succumbing to bribery from logging companies and turning a blind eye when they are supposed to be enforcing legal logging practices. In addition, there were anecdotes about landowners bypassing the clauses in the Timber Act that prescribes that development funds need to be set aside for the community. The enactment of the Protected Areas Act of 2010¹⁷ and the National Forest Policy of 2020¹⁸ have provided legal backing for anti-logging and sustainable use of land in the Solomon Islands but as alluded to by many key informants the enforcement of these laws remains a challenge, as ongoing illegal logging activities fuelled by external economic interests persist.

6.2.2 Centre of Ring: Dimensions of Empowerment

The EASD framework highlights the interconnectedness of empowerment processes and sustainable development outcomes. It suggests that empowerment is multidimensional, comprising economic, social, environmental, psychological, cultural and political dimensions. Each dimension plays a crucial role in fostering sustainable development within communities and in some instances these dimensions of empowerment interact and overlap. Applying this

¹⁷ Solomon Islands Protected Area Act, 2010. (SIG, 2010)

¹⁸ The Solomon Islands National Forestry Policy, 2020.: The National Forest Policy aims at ensuring sustainable and responsible management of forest resources and ecosystems for the benefit and resilience of all Solomon Islanders. (MOFR, 2020).

framework to the LCG's efforts can help identify how these dimensions interact with enabling conditions to support or hinder their conservation efforts, as outlined below.

Environmental Empowerment

Environmental empowerment has been critical for LCG's conservation efforts as they deal with the residual effects of past logging activities and as a result a perceived reduction in land and water quality degradation due to the halt of logging operations. Community-based conservation efforts, like reforestation and sustainable land use planning, have involved the community, enhancing local commitment to environmental protection.

Social Empowerment

Scheyvens and van der Watt (2021) describe social empowerment as a "situation in which a community's sense of cohesion and integrity has been strengthened" (p. 11). Social empowerment is another key dimension where the LCG has made significant strides. Strong community ties and a deep understanding of local customs and environmental knowledge have fostered community trust and engagement and been able to gain the community's support. Their inclusive leadership style, emphasising inclusion and collective decision-making, strengthens their social empowerment. With the formation of the LCG and alliances with NGOs and other community groups under the MMGB umbrella have expanded the rangers' social networks. These relationships provide support, resources, and shared knowledge, which are critical for ongoing empowerment. Philemon Maudua (LCG Coordinator) expressed the positive shift in community attitudes: "The younger community members that have had some education...were aware that this was a positive action and endeavour."

Despite these strengths, some cultural and social norms still limit women's roles in public decision-making, occasionally hindering wider acceptance of women-led initiatives. Initial scepticism from the community, particularly from other male relatives regarding the original IWR's lack of formal educational backgrounds and capability, could have undermined their social empowerment but was overcome through persistent efforts and visible successes, demonstrating the importance of social capital in achieving empowerment. However, as the IWR/LCG has expanded beyond a woman only group, a range of men from different generations have voiced their support and are actively involved as members of the LCG. With this social empowerment the IWR/LCG are crossing gender boundaries and spreading awareness on the benefits of conservation and unification of landowners and customary land,

whilst demonstrating that the efforts of a few rangers can benefit the wider community and generations to come.

Political Empowerment

Political empowerment for the IWR/LCG is achieved through their active engagement in legal and political actions aimed at protecting their land. They have demonstrated significant political empowerment by successfully issuing trespass notices and forming partnerships and are performing the duties required to obtain Protected Area status. These actions underscore their ability to engage in legal advocacy and mobilise the community to support their conservation efforts.

The political empowerment of the IWR/LCG, intersects and overlaps with some elements of social empowerment presented in the previous section. Namely leadership and reduced access to formal education. The IWR/LCG's inclusive leadership style, not only strengthens social empowerment but also signals political empowerment. By emphasising inclusion and collective decision-making, they ensure that their political actions are supported by a broad base of the community.

Furthermore, one of the main challenges is the limited access to formal education among the IWR/LCG rangers and the broader community. Education is a critical component of political empowerment, as it equips people with the skills and knowledge required to engage in and understand political processes and legal frameworks, in order to advocate for their rights. This limitation is reflected in comments Florence Kwaina'ala (original women ranger) recalled:

Hem look lo mitufala and hem say iu tufala no save raet no save read hem hao nao iufala if no educated hao nao iu duim something for makem gud

Translated to English: They look at us [Monica and Florence] and say you both do not know how to read or write, how do you expect to make change if you are not educated.

This highlights the perception that without education, it is challenging to accomplish significant change or be taken seriously in political arenas.

Cultural Empowerment

Cultural empowerment involves integrating Indigenous ecological knowledge and respecting customary practices. The LCG rangers have leveraged strong cultural connections to land conservation, with their emphasis of the concept of *Land blong iumi* (our land), which was a recurrent phrase, repeated within my research data and highlighting the significance of genealogical connections and cultural practices related to land protection. This cultural integration has been crucial in gaining support from traditional leaders and the wider Iqwa community, ensuring conservation efforts are culturally sensitive and supported.

Regarding cultural and traditional norms, Philemon Maudua (LCG Coordinator) and Martin Suafunua (Iqwa village elder and ranger) observed how logging had started to change and individualise people and culture where people become more transactional, but with the LCG's efforts it marked a move towards the benefits of conservation and a return to the communal benefit, signalling a return to cultural norms and ideals.

However, resistance from traditional norms that prioritise male leadership in community and land decisions remains a barrier to cultural and political empowerment of women. In the LCG Ranger's *Tok Stori* session (4th April 2024) the cultural challenges faced and addressed by women were discussed. Martin Suafunua observed that "*Women hem no garem any say for land even though hem land blong iumi.*" (Women do not have any rights or have a say in what happens to the land, despite it being our land [men and women's land]). This cultural resistance highlights the need for ongoing efforts to challenge and transform gender norms within the community, whilst simultaneously representing the changes in perception of female leadership Florence Kwaina'ala and Monica Ta'afuni have contributed to so far.

Psychological Empowerment

Psychological empowerment is about enhanced self-esteem and confidence through participation and training. The IWR/LCG and particularly the founding female members, have increased their confidence and leadership skills through their successful conservation actions. Participating in conservation activities and the formalisation of their group LCG, has fostered a sense of achievement and purpose among the female rangers and male rangers, simultaneously. This psychological growth has been essential in empowering the rangers to continue their efforts despite challenges. Ranger, Andrew Alasuka, emphasised the personal growth and confidence gained from their conservation activities and the learnings he had gained, particularly referring to his attendance at a REDD+ workshop he attended in 2022.

However, they continue to face external doubts about their capabilities and internal community conflicts over land use. Overcoming internalised stereotypes and external doubts was a significant challenge in the initial stages of the IWR, particularly for the female members, which revealed the need for ongoing support and capacity-building initiatives.

Economic Empowerment

Finally, the IWR/LCG's activities have started to create potential for reimagining alternative livelihood opportunities and sustainable tourism development in the long term, which aligns with conservation goals. Economic empowerment has been fostered through partnerships with environmental NGOs who have offered financial and material support, enhancing the IWR/LCG's capacity to sustain their efforts. Grassroots funding and support is a significant component of IWR/LCG's strategy. The IWR/LCG rangers have committed to weekly fundraising efforts, through selling locally grown or made food products at various markets in the area. Philemon Maudua described how these funds will directly contribute to achieving their goal of building an LCG office, within the Leileigela conservation area. Judith Boifuana, one of the original women rangers shared how "*Disfala waka hem wanfala learning opportunity for umifala and olketa pikinini blo umi*" (This work is a learning opportunity for us and our children). This statement underscores the dual purpose of the LCG conservation efforts to provide immediate economic benefits whilst educating the next generation on sustainable practices and empowering them to have the knowledge in the future to develop sustainable economic opportunities.

However, despite this economic empowerment that has developed, the cessation of logging initially removed an immediate source of income for many community members, which could be seen as a disabling factor until alternative economic opportunities are fully developed. This economic dependency on logging made it challenging to gain wider community support for IWR/LCG's conservation efforts. Florence and Monica advised how their initial conservation actions to stop the logging operation by the Ngu Brothers angered many others within the community (both men and women), as their departure would result in an impact on their income and potential royalty payments. The transition to alternative economic opportunities, such as sustainable tourism, is still in progress and requires further development

6.2.3 Second Outer Ring: Natural Environment

The natural environment plays a crucial role in the IWR/LCG's activities, by way of protecting and sustainably managing marine and terrestrial ecosystems through reforestation and sustainable land management. By engaging in activities that contribute to the health of the atmosphere, such as promoting practices that reduce carbon emissions and improve air quality, exemplified by REDD+ initiatives, highlights the holistic approach of the IWR/LCG towards environmental empowerment. It is important to note here, that protection of marine ecosystems are relevant as a coastline is a part of their customary land and given the consequences for coastlines elsewhere in the Solomon Islands (Minter et al. 2018). However, impact on the marine environment was not heavily referenced in the research findings.

6.3 Adapted theoretical framework showing enabling conditions relevant in the Iqwa situation

The EASD framework highlights the interconnectedness of empowerment processes and sustainable development outcomes. When applying this framework to IWR/LCG, and the empowerment and sustainable development of other community led conservation efforts, some enabling conditions could be slightly tailored to better cater for the specific context of a conservation project as opposed to a tourism project. By adapting these elements, community-led conservation projects can better align with the specific needs and contexts of the communities involved, enhancing their effectiveness and sustainability. In this adapted framework the dimensions of empowerment remain the same, but the enabling conditions are slightly adjusted. The proposed adaptations are summarised in Table 6.1 below:

Table 6.1: Proposed Adaptations to the EASD Framework

#	Current Enabling Condition	Proposed Enabling Condition	Explanation
1	Social Capital	Community Networks and Support	This adaptation focuses on building and strengthening community networks and awareness through regular meetings, social events, and collaborative projects, which are essential for providing resources and opportunities for empowerment. Including implementing programs to raise awareness and garner support from the wider community for conservation efforts.
2	Customary Practices	Indigenous Knowledge /Customary Practices	Emphasises leveraging and respecting traditional norms and cultural values, Indigenous, ecological knowledge of the land and specific land use, such as knowledge of tambu sites, and integrating them into conservation plans to ensure efforts are culturally sensitive and supported by local traditions.
3	Access to Markets and Credit	Sustainable Economic Opportunity Access	Develop and access local and regional markets for sustainably sourced products, sustainable tourism, and create microcredit schemes specifically tailored for conservation-related activities.
4	Technical Training and Linkages	Partnerships and Capacity Building	Expands the scope to include crucial partnerships, community awareness, and education necessary for enhancing economic opportunities and support for conservation. NGO and NPO, Partnerships: Foster partnerships with NGOs and NPOs to provide additional support and resources. Conservation Awareness Education: Enhance community members' understanding of environmental issues and sustainable practices.
5	Governance	Local Governance and Leadership Development	Strengthen local governance structures by providing training in leadership, management, and transparent decision-making processes.
6	Law and Policy	Legal Frameworks and Advocacy	Advocate for the creation and enforcement of laws that protect community-led conservation areas and provide legal support and training to community members to help them navigate these laws.
7	Politics	Political Engagement	Promote political advocacy and engagement to ensure community voices are heard, at local, regional, and national levels. Establish connections with policymakers to influence conservation-related legislation.
8	NEW	Gender Equity	Focuses on promoting gender equity and empowering women within the community, including ensuring equal participation in decision-making processes, leadership training for women, addressing gender-specific barriers to empowerment, and fostering an inclusive environment where all genders can contribute to and benefit from conservation.

These adaptations highlight the importance of strong community support, effective and inclusive governance, laws and policies, and partnerships with NGOs and other organisations has and would be instrumental for the IWR/LCG and other community led conservation movements to achieve empowerment and sustainable development.

6.4 Conclusion

The application of Scheyvens and van der Watt's (2021) EASD Framework and selection of the most relevant elements to the IWR/LCG provides a comprehensive understanding of how multidimensional empowerment processes contribute to sustainable development. Their conservation efforts, deeply rooted in environmental, social, cultural, and psychological empowerment, have led to significant community engagement, and advancing conservation awareness and activities. These dimensions of empowerment interacted with the enabling conditions as outlined in the framework, specifically social capital, customary practices and business training and linkages. An adapted theoretical framework was proposed that slightly tailored the enabling conditions to the specific context of a community led conservation project. These adaptations emphasise the importance of strong community support, effective governance and partnerships with NGOs and other organisations in empowering the IWR/LCG rangers and emphasises the critical role of inclusive and equitable strategies in achieving long-term sustainability and empowerment within communities.

Chapter 7 - Discussion and Conclusion: Empowering Change

7.1 Summary

This research aims to explore the roles and actions of Malaitan women in environmental guardianship and to understand what cultural and social norms facilitated or acted as barriers to implementing environmental protection actions. This study focused on a women-led and initiated grassroots movement in Iqwa, Malaita, that combats harmful and unsustainable logging practices and promotes conservation.

The following research questions and objectives were applied to explore this aim, and were answered within Chapters 5 and 6 across various sections:

Research Question 1: What were the Iqwa community members' perceptions on and responses to logging in Malaita?

Objective 1.1: Define the perceived impacts of logging practices for Iqwa people within their local context.

Objective 1.2: Consider whether there were gendered differences in their perceptions of the impacts of logging and their approaches to environmental protection.

Research Question 2: What factors enabled or presented challenges for Malaitan women in their efforts to combat unsustainable logging practices?

Objective 2.1: Understand what the self-appointed women rangers hoped to achieve through grassroots-driven activity and how they endeavoured to achieve this.

Objective 2.2: Analyse the gendered differences between approaches to environmental protection in response to unsustainable logging practices.

Chapter 5 and 6 addressed RQ1 by sharing the Iqwa community's perceptions and responses to logging in Malaita. This illustrated a complex landscape where economic benefits were acknowledged but overshadowed by significant environmental and social costs. The chapters highlighted a consensus for stopping logging activities, with detailed accounts of the

environmental degradation experienced by the community. Additionally, it emphasised the gendered differences in perceptions, with women being more critical of logging and more focused on long-term sustainability than men due to its impact on their traditional roles and lack of equitable financial benefits from logging. There was a perception that men were often driven by immediate economic needs. These insights were drawn from Sections 5.3 and 5.4, which emphasised the multifaceted impacts of logging and the community's collective movement towards conservation led by the IWR. Furthermore, Chapter 6, Section 6.2 applied the EASD framework (Scheyvens and van der Watt, 2021) and further explored these perceptions, and explored the gendered differences in responses to logging practices.

Chapters 5 and 6 also addressed RQ2 and its objectives. Section 5.3 detailed the social, economic, and cultural challenges faced by the women and the support from community networks that impacted their grassroots environmental activism. For instance, the eventual support from male community members in the face of traditional customary practices or *kastom* was a crucial enabler. Section 5.4 outlined the aspirations of the self-appointed women rangers including their goals of protecting ancestral lands and promoting sustainable conservation practices through strategies like reforestation and community education. As with RQ1, the gendered differences in approaches to environmental protection, showed that women prioritised long-term sustainability and community well-being, while men were more focused on immediate economic benefits, as evidenced by the contrasting views on the economic impacts of logging. Chapter 6, particularly Sections 6.2 and 6.3, expanded on these insights using the EASD framework (Scheyvens and van der Watt, 2021) to emphasise how social networks, customary practices, and partnerships were crucial enablers, while economic dependency and corruption posed significant challenges. This analysis demonstrated the importance of gendered perspectives and community support in shaping the IWR's environmental activism, thereby addressing all three objectives of the research question.

The next sections will highlight and explore the key themes discovered by the research.

7.2 Discussion

The research discovered some key findings regarding women's empowerment, gender inclusive conservation and the complex structure and interaction of social, cultural, economic, psychological, environmental, and gendered elements. The process of thematic analysis

discovered four key themes that will be detailed in this section in conjunction with how they relate to the EASD framework (Scheyvens and van der Watt, 2021).

Female (*geni*)¹⁹ Leadership

A key theme that emerged from the research was the pivotal role of women's leadership in driving conservation efforts. The IWR demonstrated strong leadership through proactive conservation initiatives, community mobilisation, and strategic partnerships. Monica Ta'afuni's leadership, in particular, highlighted how traditional gender norms (rooted in *kastom*) and economic dependency on logging created obstacles for the IWR, but addressing them was essential for fostering a community-wide commitment to sustainable practices (Chapter 5, Section 5.4). The thematic analysis revealed that social and cultural empowerment dimensions were crucial in this context, emphasising the importance of social networks, community support, and as Scheyvens (1998b) explores, a respect for customary practices in empowering women leaders. There are still challenges in place when it comes to culture, however, as noted in the following paragraph. The IWR/LCG exemplify how strong, culturally rooted leadership can mobilise communities towards collective action and overcome traditional gender norms. As a result, this leadership built robust social networks through expanded numbers of rangers and wider support and awareness of their efforts in the wider community. These findings illustrate that women's leadership is crucial in driving sustainable environmental practices.

Factors enabling or challenging women's environmental activism were also explored. The study identified local empowerment dimensions, such as community support and social networks, as crucial enablers. However, cultural and economic barriers posed significant challenges. For instance, traditional gender norms (rooted in *kastom*) and economic dependency on logging created obstacles for the IWR/LCG. Despite these challenges, the rangers achieved notable successes, such as the cessation of logging activities in 2021, strategic partnerships and the expansion of their efforts into the formation of the LCG focusing on sustainable land use with NGO and NPO support.

¹⁹ Geni: see Dorio Glossary: geni = female/woman, genihi = plural

Caroline Moser's (1989) view on empowerment centres on the capacity of women to increase their self-reliance and internal strength, and the importance of gaining control over material and non-material resources. This aligns with the journeys of Monica and Florence towards empowerment and sustainability. The rangers' ability to mobilize community resources and navigate cultural norms reflects Moser's empowerment approach, emphasizing the transformative potential of women's leadership in environmental activism. The IWR's success illustrates how empowered female leadership can overcome significant barriers and lead to substantial environmental and social change, reinforcing the importance of inclusive and gender-sensitive approaches to sustainable development.

Tensions between conservation and resource extraction

The environmental and social impacts of logging were another critical theme identified through thematic analysis. Logging led to significant environmental degradation, including increased flooding, reduced water quality, and disrupted social behaviours, threatening the community's way of life. The IWR/LCG addressed these impacts through community awareness and learning programmes facilitated by MMGB and reforestation efforts, such as planting over 6,000 trees (see Chapter 5, Section 5.4). This theme underscored the interconnectedness of environmental degradation and social disruption, highlighting the need for cohesive and collective action in conservation efforts.

The collective ownership and genealogical connections to the land as emphasised by the community, demonstrates the convergence of the environmental and the cultural and underscores the importance of preserving the land for future generations and ensuring equitable access for all tribal members. This reinforces the significance of IWR's conservation efforts. It also aligns with Raymond Dasmann's (1989) concepts of 'biosphere people' and 'ecosystem people,' which highlight the different relationships communities have with the land and environment. According to Dasmann, 'biosphere people' are those who live within a global network of resource exchange and may not feel the immediate impacts of environmental degradation. In contrast, 'ecosystem people,' like the Iqwa community, rely heavily on a single ecosystem for their survival and thus experience the effects of environmental degradation and resource exploitation much sooner and more severely.

Furthermore, contrasting views on logging within the community revealed complex dynamics of economic and cultural empowerment. While some community members prioritised

immediate economic gains from logging, the long-term environmental costs and cultural disruptions have shifted many towards supporting sustainable alternatives. The thematic analysis showed that while economic benefits were acknowledged, they were often overshadowed by significant environmental and social costs, emphasising the need for sustainable alternatives that align with long-term community well-being. The slight gendered disparity of approaches to logging highlights the necessity of integrating gendered perspectives into environmental protection strategies, as seen in the different approaches to environmental conservation documented in Chapters 5 and 6.

Male (*wane*)²⁰ Allyship

Male allyship emerged as a surprising discovery and crucial factor in legitimising and strengthening the Rangers' initiatives. The support from male community members broadened the impact of the Rangers' efforts and facilitated political advocacy and community mobilisation. This theme demonstrated how inclusive approaches that involve both men and women can enhance community-wide support for environmental protection. Philemon Maudua, Patrick Maudua and Martin Suafunua's observations on male support (Chapter 5, Section 5.4) highlighted the importance of political and social empowerment dimensions in bridging traditional gender roles and modern conservation efforts. Male allyship and the shift in patriarchal norms emerged as surprising yet significant findings. The support from male elders and younger men played a crucial role in advocating for gender equality in land rights and decision-making. This shift towards recognising women's roles in environmental protection is a significant cultural change, challenging traditional patriarchal structures. The demonstrated support from male allies within a traditionally patriarchal society highlights the potential for inclusive community-driven conservation efforts.

Women's empowerment through a GAD lens emphasises the vital role women's empowerment has in development. Complimentary to this approach and supporting the notion of male allyship, is MAD. MAD can significantly enrich GAD in this way because as Cornwall (2000) emphasises, "changing inequitable gender relations can hardly proceed without working with men" (Cornwall, 2000, p. 19). The expansion of the IWR group into the Leileigela Conservation Group (LCG) represents the culmination of female leadership and

²⁰ Wane: see Dorio Glossary: wane= male/man, wanehi = plural

empowerment converging with male allyship. The LCA's focus on community-led conservation initiatives, sustainable land use and reforestation projects demonstrate the effectiveness of grassroots movements in promoting sustainable development and environmental stewardship.

7.3 Conclusion

This research explored women's empowerment in response to unsustainable logging practices and their broader role in environmental protection. Key themes uncovered in the research process include women's leadership in conservation and the value of male allyship, and also tensions between conservation and resource extraction. Also highlighted was the critical role of empowered communities in challenging traditional gender roles, especially in patriarchal societies, to foster sustainable development. Societies dominated by male decision-makers present a challenge to economic empowerment as this limits women's access to resources and decision-making power (Minter et al. 2018; Minter, 2021; Scheyvens, 1998a). Moreover, the IWR/LCG's actions exemplify an empowerment approach that leverages social networks and fosters inclusive leadership to overcome patriarchal barriers.

As such, the research explored the power dynamics between men and women and stressed the importance of male allyship to help shift community perspectives. It demonstrates how changing attitudes and increased support from men can enhance the effectiveness of women's roles in environmental stewardship. In conjunction with women-led activities such as engaging in mapping, surveying, and resource control, these self-appointed women rangers were active agents of change (Beck and Jaques, 2020). As the IWR/LCG assert control over their lands and advocate for sustainable practices it enables an introduction to alternative livelihood options (Minter, 2021); Hviding and Bayliss-Smith, 2000 and SPREP, 2020), highlighting how the profound impact of multi-dimensional empowerment (economic, social, environmental, psychological, cultural and political) is essential for achieving sustainable development.

In conclusion, this research stresses the necessity for inclusive, culturally sensitive, and gender equitable approaches to sustainable development. It affirms that empowered women and supportive communities are vital drivers of environmental stewardship. These findings contribute to a broader understanding of how gender-inclusive strategies can lead to more

effective and sustainable environmental practices, reinforcing the importance of empowering women and fostering community support in conservation efforts

7.4 Limitations of the Research

The study primarily focused on the self-appointed women rangers' context and perspectives, which presents limitations in representing the broader narrative of Malaitan women and the wider community. This focus may have led to bias in data collection and interpretation. In addition, my personal connection to the research participants and location might be a source of bias, especially given the relational nature of *Tok Stori*, which may affect objectivity. However, these potential sources of bias were overcome by robust measures such as data triangulation, reflective practice and ethical considerations (as outlined in Chapter 4).

Another limitation for this research was the short timeline and 60-credit scope of the study. It would have been great to be able to conduct interviews with Government officials and logging company representatives, for example. Despite the short timeframe, my existing connections to the community meant I did not need to invest a lot of time into building rapport with participants, as a stranger would have had to do, thus I believe a good amount of quality data was still collected.

7.5 Recommendations for Future Research

The findings of this research underscore the significant achievements of the self-appointed women rangers (IWR) and the subsequent environmental group the Leileigela Conservation Group (LCG) in combating unsustainable logging practices and promoting environmental stewardship in Malaita. Building on this research, future research on women initiated or women led, and community-based conservation efforts could expand our understanding by applying the Empowerment and Sustainable Development (EASD) framework more comprehensively (as per the suggested adaptations in Chapter 6.3). This will deepen insights into the dynamics of empowerment, gender and environmental activism by exploring the intersectionality of gender, as discussed in Chapter 3.

Examining sustainable livelihood options for communities who are pro-conservation but still

need options for earning an income, is another fruitful research area. It would be particularly helpful if a gender lens was cast on such alternative livelihood activities. For example, as REDD+ projects gain traction in the Solomon Islands and other Melanesian countries, ensuring these initiatives support rather than hinder gender equity.

Comparative studies with other women-led conservation movements in the Pacific region and specifically Melanesia, offers exciting opportunities. By highlighting common challenges and successes, these studies will enhance the ability to generalise findings and provide a broader context for the IWR/LCG's efforts. In summary, future research can build on the significant achievements of the IWR/LCG by deepening our understanding of empowerment and environmental activism. These recommendations aim to contribute to development projects that demonstrate the interconnectedness of women's empowerment and sustainable development, ensuring their broader relevance and application.

To conclude this research project, I will leave the final word with Florence Kwaina'ala who reiterated that the driving motivation to move conservation efforts forward was always for the "*future blo orta pikinini*" (children's future):

Mi laek for future generation fo save lo conservation and waka lo land fo pikinin blo hem tu. Waka mifala duim lo land hem no fo iumi, hem na for future generation. If iumi sacrifice and waka hard together then gud things hem kam.

I would like for the future generations to be conscious of conservation and work hard and care for the land, for their own children too. The work we are doing is not for us it is for the future generations. If we sacrifice and work hard together then good things will come our way. (Florence Kwaina'ala, original self-appointed women ranger).

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Appendices

Appendix A: Solomon Islands Research Permit

(1 of 2)



Solomon Islands Government
Ministry of Education and Human Resources Development
 P O Box 28
 Honiara, Solomon Islands

Ph: (677) 24864
Fax: (677) 22042

Our Ref: MEHRD/RU/6/24

Date: 19th March 2024

In Accordance to the Research Act 1982 (No. 9 of 1982) RESEARCH PERMIT:

Permission is hereby given to:

1. Names:

Name	Gender	Nationality
Maria Afeau	Female	New Zealander

2. Research Subject Areas:

International Development - Guardians of the Green: The rise of Malaitan Women combating unsustainable logging practices and fostering environmental protection This study explores the intersection of women's roles in environmental guardianship and what cultural and social norms facilitate or act as barriers to implement environmental protection actions. The emphasis is on exploring the contributions of women from Iqwa (a village in the province of Malaita, Solomon Islands) who are involved in one grassroots initiative that operates to combat harmful and unsustainable logging practices.

3. Ward (s):

West Kwaio (Iqwa)

4. Province (s):

Malaita

5. Conditions:

- a. To undertake research only in subject areas specified in 3 above.
- b. To undertake research only in the ward (s) and Province (s) specified in 3 and 4 above.

(2 of 2)

- c. To observe with respect at all times local customs and the way of life of people in the area in which the research is carried out.
- d. Not to take part at any time in any political or missionary activities or local disputes.
- e. To leave four (4) copies of your final research report in English with the Solomon islands Government Ministry responsible for research at your own expense.
- f. A research fee of **SBD\$500.00** must be paid in full or the Research Permit will be cancelled. (See sec. 3 subject 7 of the Research Act).
- g. This permit is valid until **30th April, 2024** provided all conditions are adhered to.
- h. No live species of plants and animals to be taken out of the country without approval from relevant authorities.
- i. A failure to observe the above conditions will result in automatic cancellation of this permit and the forfeit of your deposit.

Signed:

Date: 26/03/24

Hon. Lanelle Olandrea Panangada
Caretaker Minister
Ministry of Education and Human Resources Development



Appendix B: Participant Information Sheet (Pijin, Dorio and English)

B.1 Participant Information Sheet (Pijin) (1 of 2)



Olketa woman wea leadim environmental waka long Malaita: Forests and Logging INFOMESIN PEPA

Introduction

Tagio for intarest blo ufala lo disfala research project. Plis you mas ridim disfala infomesin pepa or mas minim gud fastaem bifos iu mekeap maen blo iu fo tek pat or not for tek pat lo disfala project. Tagio nao sapos iu like fo tek pat, bat if nomoa tagio tu fo ting ting abaotem.

Nem blo mi nao Maria Afeau and father blo mi nao Primo Afeau blo Igwa village. Rison fo disfala research hem fo pat blo Master of International Development Degree blo mi lo Massey University, Palmerston North New Zealand.

Disfala study bae luk luk had an trae for faenem aot role blo olketa wuaman fo luk afta an kea fo da environment (land, plants, trees, rivers, etc) an lo saed blo culture, kastom an way of laef wea hem afektem eni action fo protektem da environment. Aim blo disfala study hem fo faen aot abaot contribution an help blo olgeta wuaman lo Iqwa (village in Malaita, Solomon Islands) wea olgeta statem wanfala grassroots grup fo stopem an faitem kaen logging wea hem spoelem environment, as self-appointed "Women Rangers".

Project Description and Invitation

Olgeta wuaman duim nao wanfala big waka for lukluk afta an kea fo environment blo umi, bat no eni staka research or study olgeta duim lo diswan for faen aot gudfala, especially lo Melanesia. Disfala study bae faen aot and lukluk had fo faen aot hao nao culture, society, empowerment, environmental guardianship and female-led leadership and action, olgeta intersect, meet an cross each other.

Disfala study bae usim nao qualitative and relational research methods including Tok stori - wea bae hem duim stori waitem ufala wea tek pat lo study ia an fo luk luk an observe fo faenem aot hao nao olgeta wuaman get tugeda and oganaesim olgeta seleva for stopem an faitem olgeta nogud logging practices for protektem nao environment.

Mi askem ufala for tek pat lo disfala study bikos mi luk save an hapi tumas for usim local wisdom, experience an save blo ufala. So bae mi hapi tumas for ufala tek pat lo disfala study waitem mi.

Research Project Purpose

Bikfala aim fo disfala research hem for mitim nao wanfala impoten need fo the Master of International Development degree research project an fo any conference presentations or publications bihaen kam. Sapos iu no letem bae bae nem blo iu olgeta no usim lo disfala study.

Data Management

Infomesin you givim bae olgeta kipim sef and haedem lo control blo Massey University. Bae olgeta spoilem and trowe after 5 years project hem finis.

(2 of 2)

Rights blo lu wea iu take pat: Wat nao raets blo iu for tek pat lo research

Bae mi hapi tumas sapos iu agri for tek pat, bat mas no fil olsem iu mas duim an tek pat. Sapos iu tek pat olgeta raets blo iu nao olsem: iu no ansam olgeta questin sapos iu no laek fo ansa.

- Iu save ask fo olgeta tanem of tape recorder sapos olgeta recodim iu
- Bae olgeta haedem olgeta infomesin iu givim an bae soum nomoa lo supervisor lo research ia.
- Iu save withdraw enitaem
- Iu save ask eni questin abaot research ia eni taem.
- Iu save sensim stori blo iu enitaem an ask for soum iu stori blo iu.
- Unless iu likem, bae bae olgeta no usim nem blo iu lo stori blo iu.
- Iu save ask for eni kopi lo eni repot bae bae kam out bihaen.

Contacts blo Research Project:

Sapos iu garem eni kwestin or samting iu wari abaotem disfala research, distaem or long future, plis no fraet for kontak:

Student:
Maria Afeau

Supervisor:
Regina Scheyvens

Committee Approval Statement

This project has been evaluated by peer review and judged to be low risk. Consequently, it has not been reviewed by one of the University's Human Ethics Committees. The researcher(s) named above are responsible for the ethical conduct of this research.

If you have any concerns about the ethical conduct of this research that you want to raise with someone other than the researcher(s), please contact Massey University Human Ethics by email: humanethics@massey.ac.nz.

B.2 Participant Information Sheet (Dorio)

(1 of 2)



FAITALAI NGA ANA GENI HI MALAITA LAONA MAURI NGA AFUI GOLU (MA'USU, KAFU LALAA MA ASI)

Ma'usu fa'inia Logging

INFORMATION SHEET FOR RESEARCH PARTICIPANTS

Lou funa ani golu lefo sulia

Lae le'a nga tailai funa ta'a nauhi aulu malofi funa laa-nga mai funa daulana fai-no'ofi-nga (*research*) sulia *mauri-nga-afui-golu* (ma'usu, kafu, asi ma lalalaa). Oho udu oka ana kwala oto oto no'oli sui, ma si'e obi ni'ilae funa eo nga laona logo-logo-nga no'oli. O ae ni'ilae funa eo-nga laona logo-logo-nga no'oli, ma o laea mango-nga mola wania. Ai le'anga asia funa lae folaa-nga oka o. Inau latagu, Maria Afeau, Mama'a nau taena Primo Afeau, wane mola sikali lqwa. Fai-no'ofi-nga (research)nau no'oli na daua ulia mani te lifu laona sasani-nga nau funa tole lana Masters digree nau ana International Development loho'u ana Massey University, Palmerston, New Zealand. Sasaninga no'oli e la sulia to'i-nga ma faitalai-nga ana genihi funa lio-nga sulia *mauri-nga-afui-golu* (ma'usu, kafu, asi ma lalalaa) (*environment*). Sasani no'oli, e la la'o sulia totolafa ma e'eo-nga ana ta'a laona funua goluhi. Lio kalu-nga eha lau ana faiboongi-nga ana genihi lqwa funa tala ae lana mana-manata-nga funa fa'a mango lana logging. Gila soe gila ana 'Women Rangers'.

Kwala oto oto ana project no'oli ma suga-suga-nga

Geni hi gila daua to'inga tailai funa lionga sulia *mauri-nga-afui-golu* (ma'usu, kafu, asi ma lalalaa) (*environment*). Mana-manatanga buli a'i, ma kwala-nga sulia to'inga ana genihi liofafi la'i e lau lawana Melanesia (Solomon Islands, Fiji, Vanuatu and New Caledonia). *Fai no'ofi-nga* no'oli eha lio laona lautani totolafa golu, fanua golu ma ta'a - ma ngasinga ana genihi funa lio-nga sulia *mauri-nga-afui-golu* (ma'usu, kafu, asi ma lalalaa).

Fai-no'ofi-nga no'oli na silia ani golu dau oka a'i ma golu ha daua ana figu-nga. Golu ha daua unu-unu-nga golu ta'ifau, fai soelifi-nga hi, ma lio kalu-nga hi, ma folaa-nga hi, ani golu lesia ngasinga ulifai ngana genihi gila to'o ai funa fai talainga ana lio nga sulia *mauri-nga-afui-golu* (ma'usu kafu, lalalaa ma asi).

Na suga auru mana lae-le'a tailai funi auru, funa faibonginga auru, ma ana lae folanga auru mai fanua, ana lou hi aru lae'i , ma lio folaa-nga auru ana louhi e' lau mai fanua. Laegu oka tailai ani golu taifau ana *fai-no'ofi-nga* (research) no'oli.

Nongalana fai no'ofinga no'oli

Nonga nonga lana *fai-no'ofinga* no'oli taena funa ani e la to'olana louta Master of International research project e silia. Gila laea lefonga suli'i ana logo logo nga hi ma gili lana bepa suli'i.

(2 of 2)

Lio nga sulia nigimana unu ununga no'oli

Nigimana unu unu-nga auru kwate'i, amiha lalo goni le'a ani. Nunui louhi, fainia soelifi-nga hi ma louta ami gilia, ami lala goni'i laona box. Ami ha lalo ne'e'i la'o lana computer olofana password ana Massey University. Gili gilinga hi ana beba ma laona computer, ami ha lalo goni'i funa nima falisi. Ami laea ngada lani buli ana nima falisi.

Laegui le'a tailai funiauru funa eonga laona logo logo-nga no'oli. Naba'a o ni'ilae ani o e'o lana fai-no'ofi-nga no'oli, ma o to'o ana ngasi-nga funa daulana louhi no'oli:

- Mango funa likisilana kwalahi naha soelifia amu
- Sugalagu ana fa'a-mangoa tape recordim lamu e lau a'i, tafa'i lifu ana fai soelifi-nga
- Unu-ununga hi alua esi kwatea funa ta noni ma latamu esi eo ai.
- O laea mango-nga wania fai no'ofinga no'oli ma funa usilana unu-unu-nga o hi
- O laea soelifinga sulia fai no'ofi nga no'oli
- O laea liki ta'i lana unu ununga o mai buri
- Naba'a o ae silia, ma latamu esi eo ana unu ununga o no'oli
- Suga-nga funa ani o liosia o to'o ana the copy ana ta gili gilinga eha lau wania meni fai no'ofi-nga no'oli

Laemu ae fola sulia ta lou, ma noni hi o laea lefo-nga fa'i gila sulia fai-no'ofi-nga (research) no'oli taeli:

Student:
Maria Afeau

Supervisor:
Regina Scheyvens

Committee Approval Statement

This project has been evaluated by peer review and judged to be low risk. Consequently, it has not been reviewed by one of the University's Human Ethics Committees. The researcher(s) named above are responsible for the ethical conduct of this research.

If you have any concerns about the ethical conduct of this research that you want to raise with someone other than the researcher(s), please contact Massey University Human Ethics by email: humanethics@massey.ac.nz.

B.3 Participant Information Sheet (English)

(1 of 2)



MASSEY UNIVERSITY
COLLEGE OF HUMANITIES
AND SOCIAL SCIENCES
TE KURA PŪKĒNGA TANGATA

Women-led Environmentalism in Malaita: Forests and Logging

INFORMATION SHEET FOR RESEARCH PARTICIPANTS

Introduction

Thank you for your interest in this research project. Please read this information before deciding whether to take part. If you decide to participate, thank you, and if you decide not to, thank you for your consideration.

My name is Maria Afeau and my father is Primo Afeau from Iqwa. This research is being conducted as part of the Master of International Development degree at Massey University in Palmerston North, New Zealand.

This study explores women's roles in environmental guardianship and the related cultural and social norms that impact environmental protection actions. The emphasis is on exploring the contributions of women from Iqwa (a village in the region of Malaita, Solomon Islands) who are involved in one grassroots initiative that operates to combat unsustainable logging practices as self-appointed 'Women rangers'.

Project Description and Invitation

Women play an important role in environmental guardianship, however there has been limited research on the motivations and realities of this, especially within Melanesia. This research explores the intersection of culture, society, empowerment, environmental guardianship and female led leadership and action.

This research will utilise qualitative and relational research methods including Tok stori, interviews and observations to allow insights into how and on what terms are women empowered to assemble collectively to resist unsustainable logging practices as environmental protectors.

We have asked you to participate as we would greatly appreciate drawing on your local wisdom, experience, and insight. We would therefore appreciate it if you would consider taking part in this research.

Research Project Purpose

The primary purpose of this research is to fulfill the requirements for the Master of International Development research project, and potentially for any further conference presentations or publications. Please note you will not be explicitly identified in these research products unless you state otherwise.

Data Management

The information you provide will be kept confidential and stored safely. All physical data, including interview transcripts and notes will be stored in a lockable suitcase, and electronic copies of this data will be saved on the research project's password-protected Massey University OneDrive site. The hard and soft copy data collected will be stored securely and subsequently destroyed after five years of the research project completion.

(2 of 2)

Participant's Rights: What are your rights as a research participant?

I would really appreciate it if you do agree to participate, but please be assured that you are under no obligation. If you do decide to participate, your rights are:

- *decline to answer any particular question;*
- *ask for the recorder to be turned off at any time during the interviews;*
- *the information I share will be kept confidential between the researcher and supervisor, and remain anonymous and will not be attributed to me if I state*
- *withdraw from the research at any time; (and information collected will be destroyed if requested)*
- *ask any questions about the research at any time during participation;*
- *the opportunity to change, retract or ask for verification on your comments;*
- *provide information on the understanding that your name will not be used unless you give permission to the researcher;*
- *request access to any reports or publications that are the product of this research*

Research Project Contacts

If you have any questions or concerns about this research, either now or in the future, please feel free to contact:

Student:
Maria Afeau

Supervisor:
Regina Scheyvens

Committee Approval Statement

This project has been evaluated by peer review and judged to be low risk. Consequently, it has not been reviewed by one of the University's Human Ethics Committees. The researcher(s) named above are responsible for the ethical conduct of this research.

If you have any concerns about the ethical conduct of this research that you want to raise with someone other than the researcher(s), please contact Massey University Human Ethics by email: humanethics@massey.ac.nz.

Appendix C: Research Consent Form (Pijin, Dorio and English)

C.1 Research Consent Form (Pijin)



Olketa woman wea leadim environmental waka long Malaita: Olketa forest and logging

CONSENT FORM FOR JOINIM STUDY – FOR WANFALA MAN

Mi bin readim Infomesin pepa and somewan explainim disfala project long mi. Olketa kwestin mi garem hemi bin ansaed gud, and mi save mi garem right fo askem moa kwestin eni taem.

Mi agree fo recordim olketa toktok bae mifala storim: (Yia / Nomoa)

Mi laekem olketa referem mi lo disfala study: (Yia / Nomoa)

Sapos Yia, mi laekem olketa referrem lo mi olsem (putim nem iu laekem lo hia):

- Nem blo mi

- Title blo mi or wei fo describem mi, olsem.....
(e.g. Iqwa Women Ranger, Iqwa, Malaita)

Mi laekem copy blo report blo olketa findings and final report taem research hem finis, and mi putim email address blo mi long hia: (Yia / Nomoa)

Mi agree fo tek pat long disfala study unda kondisen wea Infomesin Pepa hem setimaot

Saen lo nem blo iu: Date:

Ful Nem:

Email address:

C.2 Research Consent Form (Dorio)



**Faitalainga ana Geni hi funa lion nga sulia mauri-nga-afui-golu
(ma'usu, Kafu, lalaa ma Asi)**

Ma'usu ma Logging

**FORM FUNA IDAI OHO LALA'ILA FUNA EO NGA LAWANA LOGO-LOGO NGANI
FAI-NO'OFI-NGA NO'OLI**

Inau na udumia kwala oto-oto hi sulia **fai-no'ofi-nga** (research project) no'oli ma laegu e fola oka sulia. Lou hi na soelifi sulii, gila faata'i folasi okaani fuagu. Ma ta lou laegu ae fola sulia, ma na laea soelifi nga mola lo'u sulia.

Na fai alama'i funa ani gila soe lifi nau ma gila ha recordim unu-unu-nga nau: (Yes / No)

Na silia ani gila ne'e nau laona sasani nga no'oli: (Yes / No)

No'oli na fai-alami, ma laegu funa naha eo laona fai-no'ofi-nga (research) no'oli ulia:

- Latagu (Name)

- To'i nga nau My title or a descriptor i.e.
(e.g. Iqwa Women Ranger, Iqwa, Malaita)

Na silia report sulia louta dari la'i eha lau, ani kwate la'i lau mai fuagu buli ana fai-no'ofi-nga (research) no'oli eha sui: (Yes/ No)

Na fai alami funa eo nga lawana logo-logo-nga no'oli funa **fai-no'ofi-nga** (research)sulia laegu e fola sulia kwala oto-oto hi na sulia.

Signature: **Date:**

Full Name:

Contact Details:

C.3 Research Consent Form (English)



**Malaitan Women Empowerment and Environmental Guardianship:
A Study of Self-appointed Women Rangers in Iqwa, Solomon Islands**

PARTICIPANT CONSENT FORM - INDIVIDUAL

I have read the Information Sheet and have had the details of the research project explained to me. My questions have been answered to my satisfaction, and I understand that I may ask further questions at any time.

I agree to the interview being sound recorded. (Yes / No)

I would like to be referred to in this study: (Yes / No)

If Yes, I would like to be referred to in this study in the following way (fill in your preference):

- My name

- My title or a descriptor i.e.
(e.g. Iqwa Women Ranger, Iqwa, Malsita)

I would like a summary report of the findings and the final report sent to me on completion of this research and have added my email address below (Yes / No)

I agree to participate in this study under the conditions set out in the Information Sheet.

Signature: **Date:**

Full Name:

Contact Details: