

**Sustainable Tuna Fishing in
Small Island Developing States:
Governance and Policies in the
Kiribati Islands**

Semo Asa

A dissertation submitted to Auckland University of Technology
In partial fulfilment of the requirements for the degree
of
Master of Business (MBus)

July 2025

Department of Marketing & International Business
Faculty of Business, Law, and Economics

Table of Contents

Table of Contents	i
List of Tables.....	iv
List of Figures.....	iv
List of Abbreviations.....	v
Attestation of Authorship.....	vii
Acknowledgements.....	viii
Abstract.....	1
Chapter 1: Introduction.....	3
1.1 Background.....	3
1.2 Research Questions	8
1.3 Research Objectives	8
1.4 Significance of the study	9
1.5 Summary.....	11
Chapter 2: Literature Review.....	12
2.1 Introduction	12
2.2 The Blue Economy Concept.....	13
2.2.1 Defining the blue economy	13
2.2.2 The Pacific Blue Economy Framework	15
2.3 Transnational Governance.....	16
2.3.1 The Evolution of Transnational Governance	17
2.3.2 The New Transnational Governance as a Governance Triangle	18
2.3.3 The Governance Triangle in Practice.....	19
2.4 Ocean Governance and Environment Sustainability	21
2.5 United Nations SDG #14 and Progress	22
2.6 Addressing the Data Gap.....	24
2.7 Summary.....	25
Chapter 3: Overview of the Fishing Industry in the WCPO	26
3.1 State Jurisdiction and the Exclusive Economic Zone.....	27
3.2 Illegal, Unreported and Unregulated (IUU) Fishing Activities	28
3.3 Summary.....	29
Chapter 4: Research Design and Methodology.....	31

4.1	Research Design	31
4.2	Methods	34
4.2.1	Data Collection.....	34
4.2.2	Data Analysis Method.....	36
4.3	Limitations and Challenges	38
4.4	Summary.....	38
Chapter 5: Kiribati - A Critical Case Study.....		40
5.1	Introduction	40
5.2	The Republic of Kiribati.....	41
5.2.1	The Coral Atolls	42
5.2.2	Population Growth	43
5.2.3	Exports and Imports	44
5.2.4	Gross Domestic Product and Human Development Index.....	45
5.2.4	Inequality, Poverty and Health Care	47
5.2.5	Multiple Vulnerabilities.....	48
5.3	Kiribati Tuna Fishing Industry	52
5.3.1	Kiribati Management of Marine Fisheries	53
5.3.2	Kiribati Exclusive Economic Zone	56
5.3.3	Distant Water Fishing Nations.....	57
5.3.4	State Owned Enterprise, Partnerships and Joint Ventures.....	58
5.3.5	Limited Capacity and Logistic Constraints.....	59
5.4	Applying the Transnational Governance Framework as an Analytical Tool	61
5.4.1	Criteria and Principles of Good Governance	62
5.4.2	Guiding value of UN SDGs #13, #14 and #17.....	63
5.4.3	The Five Drivers of Ocean Governance.....	64
5.4.4	Selection Process and Assessing Effectiveness of RSS Schemes	65
5.4.5	Analysis.....	67
5.5	Summary.....	73
Chapter 6: Findings.....		74
6.1	Introduction	74
6.2	Top-Performing RSS Schemes	76
6.3	Moderately Performing RSS Schemes	77
6.4	Low-Performing RSS Schemes	78
6.5	Critical/Marginal RSS Schemes	78

6.6	Principles: Strengths and Gaps towards Governance and Policy Change	80
6.7	Summary.....	82
Chapter 7: Discussion and Conclusion		83
7.1	Theoretical implications	83
7.1.1	A Sixth Driver/Principle.....	86
7.2	Answering My Research Questions	87
7.2.1	Main Research Question	87
7.2.2	Supporting Research Questions (2a).....	88
7.2.3	Supporting Research Questions (2b).....	89
7.3	Policy Implications.....	90
7.4	Research limitations and future research direction.....	92
7.5	Conclusion.....	93
References.....		96
Appendix A: Table 1 - Balance of coastal state and flag state interest		115
Appendix B: Table 2 - WCPFC IUU Vessel List for 2025		116
Appendix C: Figure 3 - FFA member progress.....		117
Appendix D: Figure 4 - Annual trend – Progress by PNA members		118
Appendix E: Table 3 - Journals used in this study from AUT library databases.....		119
Appendix F: Table 4: A Timeline of Pacific Island Countries in the Global Climate Regime.....		121
Appendix G: Figure 5 - Kiribati Tuna EEZ		123
Appendix H: Table 5 - Coastal state balancing of interest across species		124
Appendix I: Table 6 - Vessel statistics operating in Kiribati’s EEZ.....		125
Appendix J: Figure 6 - Kiribati's share of economic sectors in the GDP 2012-2022		126

List of Tables

Table 1 - Balance of coastal state and flag state interest.....	115
Table 2 - WCPFC IUU Vessel List for 2025.....	116
Table 3 - Journals used in this study from AUT library databases.....	119
Table 4: A Timeline of Pacific Island Countries in the Global Climate Regime	121
Table 5 - Coastal state balancing of interest across species	124
Table 6 - Vessel statistics operating in Kiribati’s EEZ	125
Table 7: Drivers, Related UN SDGs and Evaluation Principles.....	69
Table 8: RSS Evaluation and Rating.....	71

List of Figures

Figure 1: The Governance Triangle & Regulatory Standard-Setting Initiatives.....	20
Figure 2: Maritime Zone under UNCLOS.....	28
Figure 3 - FFA member progress	117
Figure 4 - Annual trend – Progress by PNA members	118
Figure 5 - Kiribati Tuna EEZ.....	123
Figure 6 - Kiribati's share of economic sectors in the GDP 2012-2022.....	126
Figure 7: Kiribati's main export destination.....	43
Figure 8: Kiribati’s imports by country.....	45
Figure 9: GDP comparison between PNA members (in US\$).....	46
Figure 10: Kiribati Marine Fisheries Management Structure.....	54
Figure 11: RSS Schemes - Performance Against Governance Principles.....	75
Figure 12: Principles: Rating and Analysis.....	81
Figure 13: Governance Triangle and RSS Initiatives on Sustainable Tuna Fishing.....	84

List of Abbreviations

AUT	Auckland University of Technology
BEI	Blue Economy Initiatives
CBFM	Community-Based Fisheries Management
CCRF	Code of Conduct for Responsible Fisheries (FAO)
CFD	Coastal Fisheries Division
CPPL	Central Pacific Producers Limited
CSR	Corporate Social Responsibility
DWFNs	Distance Water Fishing Nations
EEZs	Executive Economic Zones
FCF	Fong Chun Formosa
FFA	Forum Fisheries Agency
GDP	Gross Domestic Product
GSSI	Global Sustainable Seafood Initiative
GT	Governance Triangle
HDI	Human Development Index
IGOs	Intergovernmental Organizations
ILO	International Labour Organization
ISO	International Organization for Standardization
IUU	Illegal Unreported and Unregulated
KFL	Kiribati Fishing Limited
KIFL	Kiritimati Fishing Limited
MFMRD	Ministry of Fisheries and Marine Resource Development
MFOR	Ministry of Fisheries and Ocean Resources
MSC	Marine Stewardship Council
NGO	Non-Government Organization
NT	Niue Treaty
ODA	Official Development Assistance
OFD	Oceanic Fisheries Division
PNA	Parties to the Nauru Agreement
PBE	Pacific Blue Economy
PICs	Pacific Island Countries
PIF	Pacific Island Forum
PIPA	Phoenix Islands Protected Area

PSMA	Port State Measures Agreement
RFMOs	Regional Fisheries Management Organisations
RSS	Regulatory Standard-Setting
SIDS	Small Island Developing States
SPG	South Pacific Group
SSF	Small-Scale Fisheries (FAO's Voluntary Guidelines)
TG	Transnational Governance
TML	Te Mautari Limited
UNCLOS	United Nations Convention of the Law of the Sea
UN SDGs	United Nations Sustainability Development Goals
VDS	Vessel Day Scheme
VII	Vessel Identification Information
WCP-CA	Western and Central Pacific Convention Area
WCPFC	Western and Central Pacific Fisheries Commission
WCPO	Western and Central Pacific Ocean
WTO	World Trade Organisation

Attestation of Authorship

I hereby declare that this submission is my own work and that, to the best of my knowledge and belief, it contains no material previously published or written by another person (except where explicitly defined in the acknowledgements), nor used artificial intelligence tools or generative artificial intelligence tools (unless it is clearly stated, and referenced, along with the purpose of use), nor material which to a substantial extent has been submitted for the award of any other degree or diploma of a university or other institution of higher learning.

Semo Asa

Date: 18/07/2025

Acknowledgements

Talofa Lava... Ralph Waldo Emerson once said, “*The reward for a thing well done is to have done it*” (Human Synergistics, 2013, p. 77). Five years ago, I set out on a journey guided by the call to “*seek learning, even by study and also by faith*” (The Church of Jesus Christ of Latter-day Saints, n.d., p. 224). Learning has always been a fundamental and deeply meaningful part of the human experience. While I have been fortunate to embrace this opportunity, many around the world have been denied the sacred privilege of both spiritual and secular education. With this in mind, I express my deepest gratitude to my Heavenly Father and His Son, Jesus Christ, for the blessing of gaining wisdom through sacred teachings and secular learning.

At the end of my MBus journey, I find myself reflecting on the sacrifices of my loved ones, those who have stood by me, offering not only their support but also the nourishment and encouragement that sustained me, especially in moments when motivation was at its lowest. To my wife, Kay, I dedicate this dissertation to you, my friend, my eternal companion. Your unwavering patience, compassion, and unconditional love, along with your spiritual guidance, have been my anchor through this journey. Thank you for walking this path with me.

To my supervisor, Associate Professor Dr. Matevž (Matt) Rašković, our weekly catchups were more than just academic discussions; they were transformative teaching moments that shaped the success of this research project. Your calm and approachable nature, coupled with your commitment to excellence, offered a steady guidance I needed as I navigated through the often-tumultuous waters of research on ocean governance. In moments when I felt adrift, your encouragement kept me afloat. I am profoundly grateful for your time, generosity, and the sacrifices you made to support me. Thank you.

I express my appreciation and heartfelt thanks to Mr. Sione Tekiteki and Mr. Riibeta Abeta for their support, thoughtful insights, and connection to a network of experts and practitioners toward my research. Finally, I extend my sincere appreciation to the Faculty of Business, Law, and Economics at AUT. To Ken Lee (Programme Director - MBA & Professional Masters) and the Postgraduate faculty, particularly the members of the International Business (IB) and Strategic Management (SM)

departments, Fiona Hurd, Anca Yallop, and Michelle (Sitong) Chen, thank you for your encouragement, insights and support. I also wish to acknowledge the AUT Postgraduate Research Scholarship Award, which made this journey possible and allowed me to see it through to completion. My sincere thanks to my sister La'asaga Lameko for her valuable contribution in proofreading this work.

With gratitude, I close this chapter, knowing that this journey was never mine alone; it was shaped by the love, kindness, wisdom, and sacrifices of many. Fa'afetai tele lava.

Abstract

The sustainable governance of marine resources in Small Island Developing States (SIDS) such as the Kiribati Islands sits at the intersection of ecological stewardship, postcolonial sovereignty, and global socio-economic interdependency. My study explores the transnational governance of sustainable tuna fishing in Kiribati with one of the largest and most biodiverse tuna fish stocks in the world. In Kiribati, tuna is not merely a tradable commodity; it represents a cultural lifeline, economically, and politically amid shifting climate frontiers and volatile international markets.

Positioned within the blue economy as a governance-sustainability nexus, my study advances an inquiry that foregrounds transnational governance as both a site of contestation and a coordination platform. Through a critical case study method drawing on secondary data (and some feedback from a few experts), my research examines how Kiribati's tuna fisheries are governed across a diverse ecosystem of state, market, and civil society actors, each advancing diverging conceptions of what constitutes sustainable tuna fishing. By operationalising 15 Regulatory Standard-Setting (RSS) schemes and evaluating them through a Governance Triangle Framework, my research probes how these transnational mechanisms align or fail to align with Kiribati's sustainability priorities and national sovereignty claims. The evaluation of the 15 RSS schemes' effectiveness is anchored in five governance drivers articulated by Haas et al. (2022): legal enforceability, effectiveness and adaptability, credibility, inclusiveness, and empowerment. Recognising persistent asymmetries and inequities in how power is exercised across governance regimes, I further propose a sixth governance principle – "*Equity and Justice*" to address the often-underrepresented social equity dimensions within existing frameworks.

The analysis is further guided by the normative objectives set forth in the United Nations Sustainable Development Goals (UN SDGs), in particular UN SDG #13 (Climate Action), UN SDG #14 (Life Below Water), and UN SDG #17 (Partnerships for the Goals). These global commitments offer an analytical compass through which the governance of Kiribati's tuna fisheries can be understood not only as a local or regional issue but as a matter of global strategy and transnational governance. The findings suggest that the effectiveness of transnational RSS schemes in Kiribati fisheries is uneven, constrained by fragmented authority structures, limited national capacity, and underlying structural dependencies.

However, the study also highlights opportunities for adaptive, inclusive, and cooperative governance pathways that centre the voices of SIDS within the broader international business and ocean governance discourses.

In doing so, my study contributes to closing what may be termed a “blue deficit” in the International Business (IB) literature, a long-standing oversight in how ocean spaces and their governance have been conceptualised, particularly within the IB literature and global strategy. By re-framing Kiribati’s tuna fisheries as both a governance challenge and a site of strategic agency, I hope my study brings renewed attention to how SIDS engage with the contested spaces of ocean governance and offers practical IB policy insights that may support a sustainable future within the Pacific blue economy.

KEYWORDS: *Transnational governance, Global strategy, Sustainable tuna fishing, Kiribati islands, the Pacific blue economy*

Chapter 1: Introduction

1.1 Background

Kiribati is a Micronesian Island Nation in the Central Pacific Ocean, comprising 32 atolls and one raised coral island; most of these atolls rise no more than six metres above sea level, and their terrain primarily consists of low-lying coral atolls encircled by reefs. With a total coastal length of 1,143 kilometres, these atolls stretch approximately 3,900 kilometres (2,400 miles) from east to west and 2,100 kilometres (1,300 miles) from north to south. (Kiribati National Statistics Office, 2023).

Kiribati's history is deeply rooted in the early migration of Austronesian speaking peoples, who settled across its islands long before the first century AD. By the 14th century, the arrival of Fijians and Tongans led to a blending of cultures, shaping the distinct Micronesian identity of the I-Kiribati people (Springer Nature Limited, 2020). Centuries later, in 1892, the Gilbert and Ellice Islands became a British protectorate, and by 1915, they were formally occupied as a colony comprising of three distinct island chains: the *Gilbert Islands* in the west, the *Phoenix Islands* in the central region, and the *Line Islands* in the east all spanning the equator (The World Bank, 2020). A turning point came in 1975 when the Ellice Islands chose to separate from the Gilberts, becoming the independent nation of Tuvalu. For the Gilbert Islands, this marked the beginning of a transition toward self-governance, achieved in 1976. Three years later, on July 12, 1979, the islands gained full independence as the Republic of Kiribati, affirming their sovereignty and cultural identity (Connell, 2021).

Kiribati has a population of approximately 131,232. Over half of the population (57.3 per cent) resides on the Tarawa Atoll, South Tarawa, the nation's capital (The World Bank, 2023). Migration has long been a defining feature of Kiribati's social fabric, reflecting both cultural adaptability and the search for economic opportunity. Between 2013 and 2018, more than 29,600 Kiribati nationals were living abroad, many seeking employment, education, or vocational training in countries such as Australia, New Zealand, Fiji, and the Marshall Islands (Kiribati National Statistics Office, 2024). Among them, Fiji, has emerged as the most popular destination, hosting over 11,200 Kiribati migrants (Kiribati National

Statistics Office, 2024). Most likely, Fiji is the most popular destination because of the relative size and economic development as an island economy, physical and cultural proximity, as well as relative ease of migration compared to Australia or New Zealand. In New Zealand, for example, census data from 2018 recorded 3,225 I-Kiribati migrants, mainly in the North Island, making up just under 1 per cent of the Pacific population in the country. The demographic profile of this group reveals an average age of 20.4 years (Stats NZ, 2018).

Population pressures continue to drive outward movement of the Kiribati population, compounded also by climate change issues (Thompson, 2016). With significant population growth over recent decades, projections indicate that the national population of Kiribati could nearly double to approximately 208,000 by 2050 (Bedford et al., 2016). Such rapid demographic expansion, combined with urbanisation concentrated on narrow land, housing, employment, and essential services, create complex challenges for sustainable social and economic development against the backdrop of rising sea levels brought (Cauchi et al., 2021). However, rising sea levels are not the only environmental risk to Kiribati. Environmental degradation is another relevant issue, particularly through coastal erosion in densely populated settlement areas, and the deterioration of reef ecosystems due to ocean acidification associated with global climate change (Smith & McNamara, 2015).

Kiribati face significant economic challenges and environmental vulnerabilities as one of the world's poorest nations, with limited natural resources to support its development (Kiribati National Statistics Office, 2023). Since its independence in 1979, Kiribati has relied on migration, remittances, fishing fees, foreign aid, and public sector employment to sustain its economy. However, over the past decade, economic growth has stagnated, with per capita GDP declining (Lowy Institute, 2024). Such economic reality is reflected in the country's Human Development Index (HDI) score of 0.628 in 2022, placing it in the medium human development category and ranking it 137th out of 193 nations. Comparatively, Kiribati's long-term HDI average (2000–2022) stands at 0.6, significantly below the global average of 0.727 (IMF. Asia Pacific Dept, 2023). In 2022, its GDP stood at just US\$179 million, accounting for only 0.5 per cent of the Pacific's regional economy. This translates to a per capita GDP of US\$1700, the lowest in the Pacific (UN Human Development Report, 2024).

Foreign aid remains a critical pillar of Kiribati's economic stability, making it one of the most aid-dependent nations in the world. Official Development Assistance (Gordon-Strachan et al., 2025) accounts for 18 per cent of national income, supporting essential infrastructure, social services, and economic development initiatives. Between 2008 and 2022, for example, Kiribati received an average of US\$85 million in aid annually. The figure surged to US\$117 million by 2022, representing nearly three times the amount recorded in 2008 (Lowy Institute, 2024). Such reliance on external aid and assistance highlights both the vulnerabilities and opportunities within Kiribati's development trajectory, emphasising the need for sustainable strategies to build resilience in an increasingly uncertain economic and environmental landscape. However, while many planning and governance initiatives rely heavily on external financial aid and expertise (Asian Development Bank, 2024), they often lead to short-term projects with limited long-term impact due to their top-down approaches and lack of understanding local context (Dornan & Pryke, 2017).

Kiribati's economic fragility is also compounded by critical environmental and public health challenges that undermine community well-being and long-term sustainability. Limited access to sustainable freshwater, safe drinking wells, and reliable sanitation remains one of the most pressing issues facing the population (Pacific Data Hub, 2022). Rising sea levels, porous soils, and inadequate waste management have led to the contamination of groundwater (Cauchi et al., 2021). The increased incidence of waterborne disease, causing stomach flu and other infections (Storey & Hunter, 2010; Cauchi et al., 2021), poses significant environmental and public health risks. In densely populated areas such as South Tarawa, pollution from household waste, failing sanitation systems, and the continued use of lagoons for human waste disposal contribute to the deterioration of reef ecosystems (Smith & McNamara, 2015), and exacerbate both social and environmental vulnerabilities. These conditions not only strain health systems but also highlight broader governance, customary systems and infrastructural challenges that must be addressed to build a more resilient and sustainable future for Kiribati (Fiertz et al., 2022). The above-mentioned issues, combined with Kiribati's low level of economic development, make Kiribati among the most vulnerable small island developing states (SIDS). This makes Kiribati a

theoretically interesting case study, in some ways a kind of critical case study, for studying transnational governance issue in the South Pacific.

Despite economic and environmental challenges for a nation with a small total land area of only 811 square kilometres (313 square miles), the country spans an expansive maritime zone of approximately 3.5 million square kilometres (1.35 million square miles). The vast oceanic territory serves as the third-largest tuna catch zone in the world (Senina et al., 2018). The Western and Central Pacific Ocean (WCPO) hosts some of the world's most abundant tuna fish stocks, supporting a multi-billion-dollar industry and a critical habitat for a significant portion of the world's tuna population, including key species of skipjack, yellowfin, and bigeye tuna (Senina et al., 2018).

The WCPO accounts for approximately US\$5 billion of the global tuna market annually, with Pacific Islands Forum Fisheries Agency (FFA) member countries contributing an estimated US\$2.6 billion to this total (The World Bank, 2020). Between 2014 and 2018, the average annual tuna catch in the WCPO was 2.7 million tonnes, with the exclusive economic zones (EEZs) of Pacific Island Countries (PICs) accounting for 58 per cent of this catch. Notably, purse-seine fishing constitutes approximately 70 per cent of the total WCPO tuna harvest (The World Bank, 2020).

The EEZ is Kiribati's primary and prominent economic resources (McNamara & Westoby, 2014). Tuna fishing contributes approximately 40-50 per cent of Kiribati's revenue from fisheries access fees, accounting for 22 per cent of its GDP (Barclay & Cartwright, 2007). However, the sustainable governance of marine resources has emerged as a critical challenge in the 21st century, particularly for SIDS, where natural resources are integral to economic development and social welfare. Therefore, Kiribati represents a prime example of a SIDS whose economy heavily depends on tuna fisheries.

Despite its economic importance, the industry faces significant governance challenges, primarily from illegal, unreported, and unregulated (IUU) fishing (Western and Central Pacific Fisheries Commission, 2020), which undermines sustainability and economic equity. Annual global losses from IUU fishing are estimated to range between 11 to 26 million tons of fish, with an economic impact of up to US\$23 billion (United Nations, 2023).

Governance issues within Kiribati's tuna fisheries highlight the limitations of existing regulatory frameworks, which often lack rigorous enforcement mechanisms and are inadequately equipped to address transnational challenges (Western and Central Pacific Fisheries Commission, 2024). PICs, including Kiribati, operate within a regional governance framework influenced by international organisations such as the United Nations (UN) and transnational agreements like the Western and Central Pacific Fisheries Commission (WCPFC) (Brouwer et al., 2018). However, such frameworks often struggle to balance economic interests with the need for sustainable resource management. Consequently, the concept of transnational governance, regulatory and governance mechanisms that transcend national borders, have gained traction as a potential solution to address these challenges (Buckley, 2022).

Transnational governance involves collaborative efforts between public, private, and civil society actors to address shared global challenges (Andonova et al., 2017). Abbott and Snidal's (2008) *Governance Triangle* framework offers a valuable lens to examine such mechanisms, emphasizing the interplay between institutions and the importance of regulatory standard-setting (RSS) to achieve collective outcomes (Abbott & Snidal, 2021b). Integrating the framework with the United Nations' blue economy framework provides a comprehensive approach to understanding how Kiribati can navigate the complex nexus of economic development, sustainability, and governance. The blue economy framework originated from the 2012 United Nations Rio+20 Conference and focuses on sustainable ocean-based economic development (Silver et al., 2015).

Furthermore, existing research highlights a blue deficit, a gap in understanding the intersection of equity, sustainability, and governance in ocean-based economies (Fusco et al., 2022). For example, according to President Tong (Kiribati President), during a public lecture at the University of the South Pacific in May 2011, the government regards revenue from fishing licenses as a strategic mechanism to facilitate the future migration of Kiribati's population in response to climate-induced sea level rise (McNamara & Westoby, 2014). By focusing on Kiribati's tuna fisheries, my research project seeks to contribute to the broader discourse on sustainable ocean governance, offering political and cultural insights and practical recommendations for resource-dependent economies.

1.2 Research Questions

I explore the governance and sustainability challenges facing Kiribati's tuna fishing industry within the context of transnational governance and a blue economy framework. The primary and supporting research questions are therefore as follows:

1. **Main research question:** *What are the key governance issues for the Kiribati islands' sustainable tuna fishing industry in the Western and Central Pacific Ocean?*
2. **Supporting research questions:**
 - **RQ2a:** *(How) Can sustainable tuna fishing in the Kiribati islands be managed as a type of transnational governance nexus under the United Nations' blue economy framework?*
 - **RQ2b:** *What are the key (international business) policy challenges for the Kiribati islands' sustainable tuna fishing industry, and how can they be effectively overcome?*

1.3 Research Objectives

The primary objective of my study is on the example of Kiribati to examine and evaluate 15 regulatory standard-setting (RSS) schemes intersecting with the governance and sustainability policies within the tuna fishing industry in the WCPO. I start with a critical analysis of governance challenges faced by Kiribati, key stakeholders such as the WCPFC, and policymakers at the international level, including the United Nations. I also pay particular attention to assessing the effectiveness of 15 relevant RSS schemes to Kiribati's existing governance structures in addressing IUU fishing and promoting sustainable development. Additionally, I also evaluate the extent to which Kiribati's policies align with global sustainability frameworks, particularly the United Nations Sustainable Development Goals (SDGs), in particular UN SDG #14 (Life Below Water) and UN SDG #17 (Partnership for the Goals) (United Nations, 2023).

From a theoretical point of view, I apply the concept of *transnational governance* from the global strategic literature (Buckley, 2022), the *governance triangle* framework (Abbott & Snidal,

2021a), the *Pacific blue economy* framework (Keen et al., 2018) and draw on five *drivers of ocean governance* (Haas et al., 2022) to explore the interactions among public, private, and civil society actors in the governance of Kiribati's tuna fisheries. By examining stakeholder dynamics, my research seeks to identify policy gaps and inefficiencies/deficiencies and propose strategic recommendations to enhance governance effectiveness in the sustainable management of tuna resources. Finally, I also provide actionable insights for other SIDS facing similar governance and sustainability challenges, emphasising the principles of equity and climate justice in ocean governance.

1.4 Significance of the study

The significance of my research is reflected in the following three areas. First, is the intersection of global challenges and wicked problems faced by Kiribati's tuna fisheries, such as climate change, resource depletion, and economic inequality. Wickedness, which relates to the nature of the problem in terms of their structuredness and type of complexity (van Tulder & van Mil, 2023), is reflected in diverse and complex problems at the nexus of business, society and policymaking which do not have clear-cut solutions and involve multiple stakeholders with competing interest, priorities and views that cannot be solve but *can* be mitigated and re-solved (Rašković, 2022). Given the so-called *blue deficit*, a gap in our understanding of addressing justice, equity, and sustainability in ocean-based economies, ocean governance and environmental strategies, tuna fishing showcases a pressing need to explore how better understanding transnational governance can help advance our handling of wicked problems. By addressing the intersection of these challenges through the lens of transnational governance (Buckley, 2022) and wickedness (Rašković, 2022; van Tulder & van Mil, 2023), my study contributes to the broader discourse on sustainable development and global equity. The insights gained from my research have the potential to inform international efforts to achieve the United Nations SDGs, particularly those in the context of IUU fishing (Western and Central Pacific Fisheries Commission, 2020) and climate change (UN SDG #13) related to ocean sustainability (UN SDG #14) and global partnerships (UN SDG#17).

Secondly, the *blue economy* has become an influential governance and policy framework in national and international marine governance discourses since its emergence at the 2012 UN Conference on Sustainable Development (UNCSD Rio+20 summit) (Schutter et al., 2021). Oceans cover 70 per cent of the Earth's surface and play a vital role in sustaining livelihoods, providing a crucial source of protein for both international markets and coastal communities while also supporting the rapid expansion of emerging industries such as deep-sea mining and aquaculture (Silver et al., 2015). Much of this real estate lies in the vast Pacific Ocean, where countries such as Kiribati have jurisdiction and contribute to its sustainable development. However, as Silver et al. (2025) pointed out, a significant portion of ocean space falls beyond national jurisdictions, where many marine resources are considered common goods (McCauley et al., 2018). Governance in these areas remains highly fragmented, particularly under the leadership of the United Nations, posing challenges for effective and coordinated management (Schutter et al., 2021), and therefore, need much research and exploration.

Thirdly, the persuasive power of the *blue economy* narrative has intensified geopolitical competition among states, as nations seek to position themselves at the forefront of ocean governance for both economic and military gain (Kullenberg, 2010). By embracing the blue economy framework, countries not only assert their commitment to sustainability but also secure strategic advantages in global relations (Jouffray et al., 2020), development and financing (Schutter et al., 2021), naval and maritime power (Chan, 2024), and policy influence (Voyer et al., 2018).

Lastly, wicked problems, by their very nature, lack a single, definitive solution and are shaped by numerous interdependent factors. Effectively addressing such challenges requires a deep understanding of the various types and degrees of complexity associated with wickedness. As noted by van Tulder and van Mil (2023), the complexity inherent in wicked problems stems from multiple, overlapping sources of ambiguity, linked to analytical, contextual, institutional, and distributional ambiguities. These elements interact in dynamic ways, often creating uncertainty about which actions to pursue, what priorities to set, and under what conditions to act. In this context, wicked problems related to ocean governance exemplify a host of complexities that extend beyond IUU fishing, affecting food security and livelihoods. It intersects with sustainability issues and other maritime crimes such as

drug, human, and weapons trafficking, smuggling, irregular maritime arrivals, and piracy. Illicit fish trade, for example, can finance insurgencies and political violence (Lindley et al., 2019). Therefore, the significance of my study extends beyond Kiribati and the WCPO to other actors in the global ecosystem.

1.5 Summary

In this chapter, I have laid out the foundation for my research study, providing a background overview of Kiribati's geographical, historical, economic, and environmental context, highlighting the significance of the tuna fishing industry as the nation's primary economic resource with its complex governance challenges, particularly in balancing economic development with sustainability in its marine resources. The primary aim of my study is to provide a comprehensive analysis of the governance and sustainability challenges facing Kiribati's tuna fishing industry. The significance of my research extends beyond Kiribati and the WCPO region, offering valuable lessons for other SIDS and all other ocean resource-dependent economies navigating the complexities of sustainable development in this global ecosystem.

The literature review in Chapter 2 provides the conceptual scaffolding for this investigation. It reviews key academic and policy discourses on transnational governance, the blue economy framework, and sustainable fisheries management, particularly as they relate to Kiribati and SIDS in the Pacific. While these frameworks offer normative aspirations for ecological balance and economic resilience, they remain entangled in real-world constraints, limited financial capacities, geopolitical marginality, and resistant power asymmetries. The next chapter also highlighted significant data limitations, which often curtail the ability of island states like Kiribati to assert their needs within global regulatory systems. Thus, the literature review exposes both the potential and the pitfalls of governance paradigm, which will then inform my subsequent critical analysis of the Kiribati Islands' sustainable tuna fishing as a kind of critical case study in the chapters that follow.

Chapter 2: Literature Review

2.1 Introduction

The blue economy framework has emerged as a paradigm (Choudhary et al., 2021; Schutter et al., 2021; Silver et al., 2015) for promoting sustainable ocean-based economic development whilst also pursuing environmental conservation and social equity. Within the framework, the governance of marine resources, particularly in transnational contexts (Haas et al., 2020), is a key concern for SIDS (Singh et al., 2018). Kiribati is a prime example, as its economic and food security depends heavily on the sustainable management of tuna fisheries. The WCPO is the world's most productive tuna fishing region, accounting for over 54 per cent of global tuna catches by volume, which in 2022 was estimated at around US\$5.95 billion (Haas et al., 2024). However, the global tuna resource faces increasing pressures from climate change, IUU, overfishing, geoeconomic competition, and geopolitical rivalry. The governance of this vital resource is shaped by a complex web of transnational actors, including regional fisheries management organisations (RFMOs), national governments, private sector stakeholders, as well as local communities (Hale, 2020). Their policies and actions have profound implications for the sustainability of tuna stocks and the economic resilience of Pacific SIDS.

The intersection of the blue economy, transnational governance, and sustainable tuna fishing in Kiribati presents both opportunities and challenges for achieving long-term sustainability and governance. While regional institutions such as the WCPFC establish conservation and management measures, their effectiveness depends on supporting SIDS' structural voids and vulnerabilities (Goodman, 2013) through various enforcement mechanisms and compliance of dominant foreign industrial fleets by distant-water fishing nations (Campbell & Hanich, 2014). Moreover, the equitable distribution of economic benefits to coastal states (Choudhary et al., 2021; Chowdhury et al., 2024) highlights governance gaps that limit Kiribati's capacity to fully harness its tuna resources for national development.

The literature review begins by defining and examining the concept of the blue economy with particular attention on the application of the Pacific blue economy (PBE) framework as a regionally adapted framework, which is in contrast to the broader blue economy concept applicable on a global scale. The review then explores key elements of the PBE framework relevant to the WCPO, focusing on its implementation, impact on PICs, and its role in shaping activities and policies related to sustainable tuna fishing, with particular attention to the case of Kiribati. I then analyse the factors influencing sustainable tuna fisheries, including climate change adaptation, equity, and coastal resilience, acknowledging the heightened environmental and economic vulnerabilities faced by Pacific Island states. Lastly, I will reflect on the perspectives of SIDS, emphasising the inclusion of indigenous voices and local knowledge in advocating for innovative approaches within the PBE framework (Lyons et al., 2023).

2.2 The Blue Economy Concept

2.2.1 Defining the blue economy

The blue economy has gained significant attention among policy-makers and economic stakeholders, following the 2012 UN Conference on Sustainable Development (Rio+20) (Van Alstine et al., 2013). However, its conceptual foundations can be traced back to the 1990s, when efforts to advance inclusive ocean governance sought to extend beyond the regulatory framework of the United Nations Convention on the Law of the Sea (UNCLOS) and establish international marine research initiatives (Duan et al., 2024).

Silver et al. (2015) pointed out a decade ago that ocean governance and the concept of the blue economy are driven by three key motivating factors:

1. The vast expanse of the world's oceans plays a crucial role in economic development, providing essential resources such as fish for global markets and coastal communities, while also supporting emerging industries like deep-sea mining and aquaculture (Waiti & Lorrenij, 2018).

2. A significant portion of oceanic resources exists beyond national jurisdictions, where governance remains fragmented under UN-led initiatives; and
3. A growing commitment from both state and private sectors towards ocean conservation and sustainable development, exemplified by initiatives such as the World Bank Global Partnership for Oceans.

Since 2012, the concept of the blue economy has been applied within four overarching discourses concerning human-ocean relations (Silver et al., 2015), namely: (1) oceans as natural capital, (2) oceans as a driver of economic growth, (3) oceans as integral to the sustainability of Pacific SIDS, and (4) oceans as essential to small-scale fisheries (SSF) livelihoods. Across these discourses, the blue economy has been consistently invoked to emphasise the significance of oceanic resources and their connection to the green economy agenda established at Rio+20 (Silver et al., 2015).

Yet, the term *blue economy* has been subject to varied interpretations and perspectives as different stakeholders have sought to frame specific ocean-related challenges, solutions, and actors in ways that are often inconsistent or incompatible (Clark Howard, 2018). Consequently, there remains ambiguity regarding whether the blue economy will ultimately be associated with a particular group of actors, such as SIDS, or whether it will serve as a shorthand for specific governance mechanisms related to either oceanic resources or water resources even more broadly. Regardless, the corresponding mechanisms can further relate to either market-based approaches or broader ideological frameworks. Some scholars also argue that the blue economy represents a continuation of the incremental reformism initiated by the green economy, further reinforcing/imposing market-driven governance structures within marine resource management (Mallin & Barbesgaard, 2020).

Despite terminological ambiguity, the blue economy framework has been actively promoted by a number of national and transnational entities, including national governments, philanthropic organisations, intergovernmental bodies, and industry alliances (Issifu et al., 2023). These entities have led the development of tailored policy frameworks across major maritime regions, particularly in the Caribbean and the Pacific, where it has been positioned as a development framework to support SIDS and coastal nations in addressing socioeconomic and environmental challenges (Hassanali, 2020).

As the concept of the blue economy gains significant global attention, particularly following the June 2025 UN Ocean conference in France, the island nation of Seychelles (an archipelago of 115 islands) in the Indian Ocean off the coast of East Africa (Bueger & Wivel, 2018), has emerged as a key advocate for its development. Seychelles have embraced the blue economy not only as a strategy for sustainable ocean management but also as a means to reinforce its leadership on both national and international stages. By positioning itself at the forefront, Seychelles demonstrate how responsible ocean governance can serve as both a diplomatic asset and a pathway to economic growth and social development (Schutter et al., 2021).

Conversely, Schutter et al. (2021) have pointed out that the blue economy is commonly conceptualised through the lens of the so-called triple bottom-line objectives, which seek to balance economic diversification, marine ecosystem conservation, and social inclusivity, underpinned by integrated ocean governance and technological advancements. The triple bottom line is a derivative of the more commonly known triple bottom line of *people, profit and planet*. However, its theoretical and practical application has been criticised for its ambiguity, sectoral fragmentation, inconsistency, and inherent contradictions (Schutter et al., 2021).

Some critics challenge that, rather than facilitating genuine sustainable transformation, the blue economy prioritises a capital-driven growth agenda, impeding the structural changes necessary for long-term ecological and social resilience. While proponents present it as a “triple win” strategy, balancing the interests of coastal and island communities, ocean health, and economic prosperity, critical perspectives highlight its potential risks for indigenous groups (i.e., Māori in New Zealand), who have historically faced exclusion under market-oriented governance and resource exploitation frameworks (Rout et al., 2024).

2.2.2 The Pacific Blue Economy Framework

As the largest ocean and the most expansive body of water on Earth, the Pacific Ocean holds unparalleled ecological, economic, and geopolitical significance (Louey, 2022). Given its vast marine

resources and the deep-rooted connection of PICs to the ocean, the PBE framework stands as one of the most prominent and consequential manifestations among the broader blue economy frameworks (Keen et al., 2018).

The blue economy broadly refers to the sustainable governance of marine resources on a global scale, including fisheries, aquaculture, marine tourism, and renewable ocean energy (Bennett et al., 2021; Silver et al., 2015). However, the PBE, is tailored to address the unique socio-economic, climate change adaptation, fishery governance, coastal resilience and equity challenges and recognise other environmental vulnerabilities and economic shifts faced by PICs (Louey, 2022; Mallin et al., 2019). The concept aligns with regional sustainability frameworks and governance structures, reflecting the ecological and socio-political realities of SIDS in the Pacific (Keen et al., 2018).

Thus, while both frameworks share the overarching objective of promoting sustainable ocean-based economic development, the PBE is inherently context-driven, not just context-specific (Baxter & Jack, 2008; Welch et al., 2022), PBE integrates traditional knowledge systems and regional policy mechanisms to enhance the resilience and sustainability of marine resources in and across the PCI communities.

2.3 Transnational Governance

At its core, governance encompasses the systems, structures, and processes that guide and manage an organisation or nation. It plays a crucial role in ensuring accountability, transparency, and effective decision-making, shaping policy implementation and the upholding of responsibilities across borders (Rose-Ackerman, 2017). Namely, transnational governance refers to the regulation, coordination, and management of issues that extend beyond national borders, involving a diverse mix of state and non-state actors (Bartley, 2018) across various levels (Hartmann et al., 2022). Unlike traditional governance, which is mainly the responsibility of sovereign states and their institutions, transnational governance brings together supranational institutions (Hartmann et al., 2022), international organisations, multinational corporations, non-government organisations (NGOs), and advocacy groups to shape

policies and regulations (Hale, 2020). Instead of relying solely on government mandates, Hale (2020) points out that transnational governance often works through voluntary agreements, market-driven mechanisms, and informal legal frameworks.

What sets transnational governance apart from national governance is its broad, multi-level participation. Global institutions such as the United Nations (UN) and World Trade Organisation (WTO), alongside businesses, civil society organisations, and scientific communities, all play key roles in shaping policy and practice (Hale, 2020). Such a decentralised approach allows for targeted responses to pressing global challenges, many of which are wicked in nature (van Tulder & van Mil, 2023). Whether tackling environmental sustainability (Singh et al., 2018), human rights (Pegram, 2015), or financial regulation (Newman & Posner, 2016), transnational governance offers a more flexible and adaptive alternative to traditional state-led systems (Hartmann et al., 2022).

2.3.1 The Evolution of Transnational Governance

Throughout history, civilisations have developed rules and agreements to navigate relationships across political, cultural and societal boundaries. From ancient agreements amongst tribes to treaties between earlier settlers and indigenous people (O'Sullivan, 2008) to modern international accords (Hartmann et al., 2022), cooperation beyond borders is nothing new. Recently, International Relations (IR) scholars have devoted considerable effort to understanding how governments work together through intergovernmental institutions (Schäferhoff et al., 2009).

What stands out today, as some critics argue, is the growing presence of transnational rules designed not for states, but for businesses, financial institutions, NGOs, and even individuals, actors that operate beyond national borders (Hartmann et al., 2022; Roger & Dauvergne, 2016). While local governments, courts, and regulatory agencies may play a role, these rules typically evolve in parallel or even without direct oversight from national governments and sometimes even international bodies.

However, Andonova et al. (2017) challenge such views and critique the conventional assumption that transnational governance merely fills the gaps left by weak national policies. Instead,

they argue that robust national policies actively foster and shape engagement in transnational governance. Their analysis, grounded in an original dataset on transnational climate initiatives, underscores the reciprocal relationship between domestic institutions and the broader transnational landscape, which is also consistent with the understanding of so-called supranational institutions (Hartmann et al., 2022). Rather than viewing national policies and transnational governance as competing forces, the study reveals them to be complementary, with strong national commitments serving as catalysts for deeper transnational participation (Andonova et al., 2017).

Such an argument aligns with the evolving architecture of global climate governance, particularly as embodied in the Paris Agreement (United Nations, 2023). Unlike earlier frameworks, which emphasise either state-led or transnational approaches in isolation (Pattberg & Stripple, 2008), the Paris framework signals a shift toward a hybrid mode of governance, wherein national policies, transnational networks, and intergovernmental cooperation are mutually reinforcing (Van Tulder et al., 2021). Hence, such research contributes to a broader scholarly discourse, repositioning transnational governance not as an alternative to state authority but as a dynamic and multi-level extension of it, shaped by and in dialogue with domestic institutional frameworks. Scholars, like Roger and Dauvergne (2016) refer to such evolving systems of cross-border coordination as transnational governance.

2.3.2 The New Transnational Governance as a Governance Triangle

A governance triangle offers a useful lens to understand how states, the private sector, and NGOs interact in shaping regulatory standards. It illustrates how governance is increasingly shared among these actors, particularly in areas where direct state control is limited or absent (Abbott & Snidal, 2021a).

Since its emergence in the 1980s, the governance triangle has evolved to reflect the growing involvement of firms and NGOs in regulatory processes. Abbott and Snidal (2008) posit that states, businesses, and NGOs each bring distinct capacities, legitimacy, and motivations to global governance. As a result, various regulatory standard-setting institutions (Fidelman et al., 2014) ranging from state-led regulatory frameworks to public-private partnerships and industry-led initiatives. The governance

triangle serves as a framework to analyse such evolving regulatory structures, especially in contexts where traditional state authority is either fragmented or weak (Abbott & Snidal, 2021b).

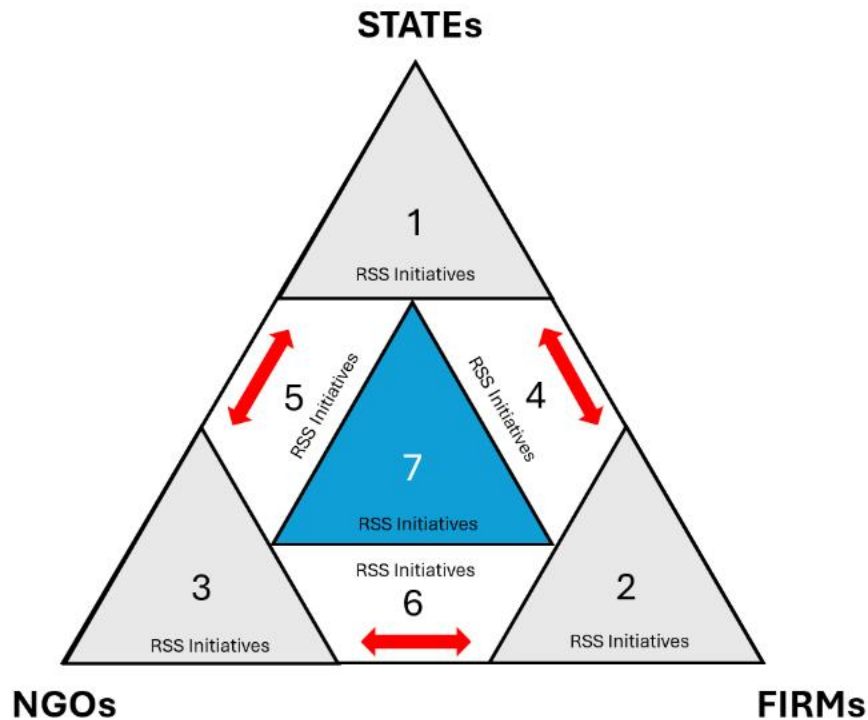
The question of who should regulate global production has become increasingly complex as globalisation challenges the regulatory reach of individual states, since IB is dominated by multinational corporations operating as either global factories (Buckley, 2009) or along increasingly opaque global value chains (Kano et al., 2020; Rašković, 2024). Historically, governments played a central role in overseeing business activities within national borders, however, as production and trade extend beyond these borders, state capacity to regulate effectively has become more constrained (Abbott & Snidal, 2008). This has led to the emergence of alternative governance mechanisms, including international regulations set by intergovernmental bodies (Hartmann et al., 2022). Such intergovernmental-led initiatives advocate for ethical and environmental standards and business self-regulation (Lambin & Thorlakson, 2018), where industries develop their own standards to preempt stricter government oversight in an attempt to proactively manage their responsibility boundaries (DeBerge, 2024). The mechanisms function in a decentralised and competitive landscape, where regulatory authority is distributed among multiple actors rather than resting solely with the state – a particular complexity feature of wicked problems (van Tulder & van Mil, 2023).

2.3.3 The Governance Triangle in Practice

The governance triangle, depicted in Figure 1, represents the range of regulatory standard-setting institutions and their actor compositions. Abbott and Snidal (2021a) define the governance triangle in terms of the direct participation of *States, Firms, and NGOs* in regulatory efforts. The surface of the triangle represents the transnational regulatory space, which is divided into seven zones, each indicating various levels of actor(s) involvement. In *Zone 1*, state-led governance is characterised by a single government or a coalition of states, often working through intergovernmental organisations (IGOs) (Parolin et al., 2025), to establish and enforce standards using national laws, international agreements, or soft law mechanisms. *Zone 2* represents business-led self-regulation, where firms and industry

associations independently develop and enforce standards without direct state involvement. *Zone 3* consists of NGO-driven regulatory schemes, in which NGOs or civil society coalitions take the lead in creating voluntary standards and monitoring compliance.

Figure 1: The Governance Triangle & Regulatory Standard-Setting Initiatives



Note. Adapted from “The governance triangle: Regulatory standards institutions and the shadow of the state” by K. W Abbott and D. Snidal, 2021a, In *The spectrum of international institutions*, p. 63. Copyright 2021 by Routledge. RSS = Regulatory Standard-Setting.

Zones 4 to 6 involve hybrid governance frameworks, where two actor groups collaborate while the third plays a minimal role. For example, in *Zone 4*, initiatives like the UN Global Compact (UNGC)¹ facilitate partnerships between businesses and IGOs (Berliner & Prakash, 2012, 2014), with limited participation from NGOs or civil society. Finally, *Zone 7* represents multi-stakeholder governance, where states, businesses, and NGOs share responsibility for regulatory standard-setting and

¹ Launched in 2000, the United Nations Global Compact (UNGC) is the world’s largest corporate sustainability initiative. It encourages businesses to voluntarily adopt ten core principles on human rights, labour, the environment, and anti-corruption while supporting broader UN goals like the Sustainable Development Goals (SDGs).

enforcement, combining the strengths of all three actors. The above mentioned framework, as depicted in Figure 1, illustrates the diverse and comprehensive transnational governance forms, combining the strengths of all three actor groups to transnational governance, highlighting varying degrees of involvement from state and non-state actors (Abbott & Snidal, 2021a).

2.4 Ocean Governance and Environment Sustainability

Given the critical role of the oceans in global economic and social-ecological systems, my study examines how the UN Sustainable Development Goal (UN SDG) #14 (Life Below Water) and its associated sub-targets can provide insights into the research questions outlined at the beginning. Singh et al. (2018) claim that achieving the UN SDGs leads to complex and interconnected ecological, social, and economic consequences. Recognising these interdependencies is crucial for prioritising governance and policy strategies that effectively balance sustainability and socio-economic development.

The UN SDGs encompass 17 broad objectives, each comprising multiple specific targets. These goals address environmental protection (both terrestrial and marine), social justice (including poverty and hunger alleviation), economic stability (such as the creation of sustainable industries), and infrastructure development (including urban planning). UN SDG #17, which contains 19 targets, emphasises international collaboration as a cornerstone for achieving these global ambitions (United Nations, 2018). Among these, UN SDG # 14 (Life Below Water) specifically seeks to “*conserve and sustainably use the oceans, seas, and marine resources for sustainable development*” (Singh et al., 2018, p. 224).

Singh et al. (2018) also point out that the targets within UN SDG #14 are intrinsically linked to all other UN SDGs, with two ocean-related targets demonstrating particularly strong connections across the framework. One prevailing hypothesis suggests that ocean sustainability generates widespread benefits with relatively fewer trade-offs, making it an essential area for prioritisation in sustainable development efforts. Spalding and de Ycaza (2020) view the adoption of UN SDG #14 as a defining moment in ocean governance, marking a shift where international actors increasingly recognise the

ocean as a critical component of global development (Voyer et al., 2018). Notably, efforts to elevate ocean conservation on the global governance agenda predate UN SDG #14 (Kullenberg, 2010). For example, the UN Convention on the Law of the Sea (UNCLOS) of 1982 reinforced commitments to supporting vulnerable populations and promoting integrated management, ecosystem-based approaches, and other mechanisms to better coordinate ocean-related sustainability initiatives (Spalding & de Ycaza, 2020).

Despite such initiatives and advancements, ocean governance remains complex, shaped by diverse actors with varying priorities, motives and perspectives, which are key characteristics of so-called wicked problems at the nexus of global economy, society and policy (Rašković, 2022). As developing nations experience economic growth, they may acquire both the financial resources and political will to engage more actively in environmental governance (Haas et al., 2022). Over time, this may translate into increased participation in regional agreements aimed at mitigating cross-border pollution, as well as a greater commitment to global treaties addressing marine sustainability.

However, in the near term, substantial policy shifts remain uncertain (Blasiak et al., 2018). Blasiak et al. (2018) note that such hesitation is not solely a result of competitive pressures to lower environmental standards but rather reflects the reality that economic growth remains a more immediate priority for many developing nations. Governments are often reluctant to impose stringent environmental protections if the direct impacts of degradation are not immediately felt by their own populations (Voyer et al., 2018). Furthermore, existing governance frameworks frequently fall short in providing sufficient support for poorer and less developed nations, which struggle to balance economic expansion with sustainability imperatives (Gómez-Baggethun & Naredo, 2015).

2.5 United Nations SDG #14 and Progress

Since the adoption of the UN SDGs in 2015, the health of the world's oceans has gained prominence in terms of a global agenda, with UN SDG #14 (Life Below Water), specifically dedicated to their protection and sustainable use (United Nations, 2023). At the national level, many coastal and island

nations have embraced blue economy strategies, positioning the ocean as a central development pillar (Morgan et al., 2024; Morgan et al., 2022). However, despite such recognition, significant challenges remain in achieving key UN SDG #14 targets, particularly those related to sustainable fisheries.

Among the ten targets under UN SDG #14, four (#14.2, #14.4, #14.5, and #14.6) had a 2020 expiration date, yet progress has been uneven since their deadlines. Andriamahefazafy et al. (2022) highlight that UN SDG #14.4, which focuses on sustainable fishing and restoring fish stocks, has seen limited success, with 61.8 per cent of countries making only minimal progress and another 31.5 per cent showing only moderate improvement (Andriamahefazafy et al., 2022). Strikingly, only three countries (i.e., Marshall Islands, Papua New Guinea, and Tuvalu), have fully met the target. Furthermore, data availability also remains a significant hurdle (Arora et al., 2023). For example, in one of the key databases used for tracking progress, data from 33 countries were missing. Interestingly, while UN SDG #14.4 shows the lowest rate of achievement, it also has the fewest countries classified as making little efforts or no progress at all (4.6 per cent) (Andriamahefazafy et al., 2022).

In contrast, UN SDG #14.6, which aims to combat illegal, unreported, and unregulated (IUU) fishing, has seen better progress. More than half of the countries assessed have either met or are making significant strides toward achieving this target. However, no country has successfully achieved both UN SDG #14.4 on sustainable fish stocks and UN SDG #14.6 on addressing IUU fishing. The challenge of meeting UN SDG #14.4 remains particularly acute, given the high number of countries reporting either no or minimal progress (Andriamahefazafy et al., 2022). This underscores the need for increased efforts in marine conservation and fisheries management, as well as the fundamental requirement of robust and accessible data.

A major obstacle to progress on UN SDG #14.6 is the persistence of harmful fisheries subsidies (Sumaila et al., 2021). Despite strong evidence of their detrimental impact on fish stocks and ongoing advocacy for their removal, global consensus on this issue was only reached in June 2022, with implementation still pending (World Trade Organisation, 2022). Addressing this challenge requires sustained political commitment, improved enforcement mechanisms, and enhanced international cooperation.

2.6 Addressing the Data Gap

Since the establishment of the SIDS groups and territories, the challenge of data scarcity and the issue of data gaps has been repeatedly acknowledged as a critical vulnerability for SIDS (Arora et al., 2023). Limited data availability affects SIDS's ability to respond proactively to climate change, food insecurity, economic dependence on external trade, and governance challenges. Without reliable data, these nations struggle to secure appropriate international support and recognition within the global sustainability discourse. Hillbom et al. (2023) stress that SIDS are overrepresented among countries with the poorest data coverage, making it difficult to assess their sustainability efforts. Because SIDS have diverse economic structures and environmental vulnerabilities, their pathways to sustainable development vary significantly. However, their ability to track progress and implement targeted policies is hindered by inadequate statistical capacity (Hillbom et al., 2023). The lack of comprehensive data means that SIDS are often overlooked in international sustainability assessments, leading to policies and funding mechanisms that may not fully reflect their needs.

One indicator of the data gap is the limited number of academic studies focusing on SIDS. Klöck and Nunn (2019) found that only 26 of the 58 SIDS have been examined in adaptation research, with substantial disparities in coverage. While Fiji was featured in 12 articles, receiving the most attention, Kiribati, Samoa, and the Solomon Islands only appeared in four articles each. Such limited academic focus restricts knowledge-sharing and the development of context-specific policy interventions for many island nations.

Ultimately, achieving sustainability in fisheries and ocean governance depends on bridging the data gap, particularly for SIDS, strengthening statistical capacity, fostering research collaborations, and ensuring that data collection mechanisms are inclusive and representative will be essential steps toward ensuring that these vulnerable nations are not left behind in the global push for ocean sustainability.

2.7 Summary

Chapter 2 has examined the complex interplay between the blue economy, transnational governance, and sustainable fishing. The literature highlights the international frameworks of the PBE and the UN SDGs, providing a pathway towards sustainable ocean-based economic development. However, their implementation remains constrained by limited financial resources, power imbalances, and the ongoing challenges posed by climate change, particularly in Pacific SIDS. Transnational governance, as explored through the governance triangle framework, further complicates the landscape, as it operates through a web of actors, policies, and institutional mechanisms that do not always align with the priorities of coastal states. Such a governance structure, while providing opportunities for regional cooperation and sustainability initiatives, also underscores the challenges of equitable resource management in an industry where power irregularities persist.

I have also highlighted the persistent data gaps that hinder the ability of SIDS like Kiribati to assert their interests in global governance. Without robust data, these nations struggle to advocate for policies that reflect their unique vulnerabilities and long-term sustainability goals. As we turn to Chapter 3, the focus shifts to an in-depth exploration of the tuna fishing industry in the WCPO, contextualising Kiribati's position within this broader economic and social-ecological system.

Chapter 3: Overview of the Fishing Industry in the WCPO

The governance of fisheries in the WCPO falls under the WCPFC, where negotiations are often shaped by competing interests between Pacific Island coastal states and Distant Water Fishing Nations (DWFNs). PICs approach fisheries governance through collective coordination, with 17 members operating under the FFA (see Appendix A). The FFA provides technical expertise and negotiation support within the WCPFC, ensuring that PICs can advocate effectively for their interests (Azmi & Hanich, 2021).

Within such a governance framework, two key sub-groups reflect distinct economic priorities. The Parties to the Nauru Agreement (PNA), which includes eight tuna-rich PICs and Tokelau, primarily focuses on purse seine fisheries² (Yang et al., 2024) targeting skipjack tuna. Meanwhile, the South Pacific Group (SPG) is more engaged in longline fisheries³, particularly for South Pacific albacore tuna (Azmi & Hanich, 2021). In 2022, the total tuna catch in the Western and Central Pacific Convention Area (WCP-CA) was estimated at approximately 2.7 million metric tonnes, marked a slight increase from 2021 but remained about 270,000 metric tonnes below the 2019 record catch (Williams & Ruaia, 2023).

The WCP-CA continues to be the dominant tuna fishing region in the world, accounting for 80 per cent of the total Pacific Ocean tuna catch (3.37 million metric tonnes) and 54 per cent of the global tuna harvest, which was provisionally estimated at nearly 5 million metric tonnes (Western and Central Pacific Fisheries Commission, 2025a). Despite the scale of tuna extraction, the region's four primary tuna species, yellowfin, bigeye, skipjack, and South Pacific albacore, are not classified as overfished or under immediate threat of overfishing (Steven R et al., 2023).

² The purse seine fishery is a widely used method for capturing schooling fish in the open ocean. A large net, known as a "purse seine," encircles the fish, with its bottom drawn shut like a tightened purse. This technique is primarily used for pelagic species such as tuna, mackerel, and sardines. As a key practice in commercial fisheries, it enables large-scale and efficient harvesting.

³ Longline fishing is a commercial technique that uses an extended, baited line to target species at various depths, from the surface to the ocean floor. While effective for catching pelagic and demersal (i.e., founders, rays, etc.) fish, it can also unintentionally capture non-target species like sea turtles and seabirds. Proper management is essential to minimise bycatch and ensure sustainable fishing practices.

Unlike other oceanic regions, the vast majority (over 85 per cent) of the tuna catch in the WCP-CA takes place within the waters of coastal states, underscoring the central role of national jurisdictions in the management and sustainability of these fisheries (Haas et al., 2024).

3.1 State Jurisdiction and the Exclusive Economic Zone

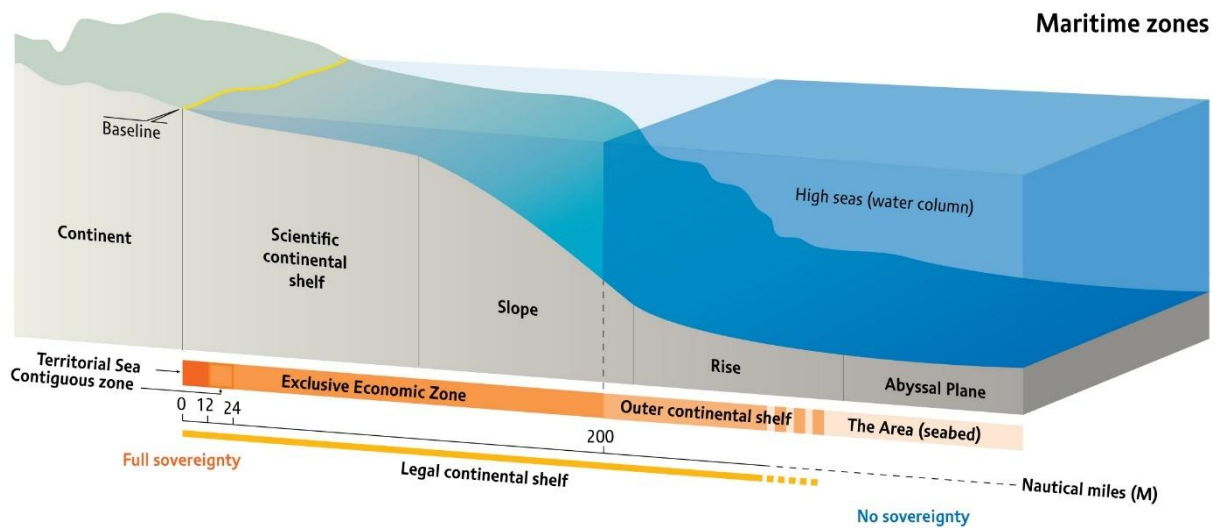
The UNCLOS establishes a framework for maritime governance, defining different zones under state jurisdiction (Blasiak et al., 2018). Figure 2 indicates how these zones are measured from a designated baseline, typically the low-water mark (Pravettoni, 2010). Territorial seas extend up to 12 nautical miles from a country's coastline, where the coastal state holds full authority to regulate laws, manage resources, and control activities, however, foreign vessels retain the right of innocent passage (Wright et al., 2016). Beyond this, the EEZ stretches to 200 nautical miles, granting coastal states sovereign rights over natural resources, both living and non-living (Buck, 2009). Within such an area, states can conduct marine scientific research, build artificial islands, and enforce environmental protections. While coastal nations oversee resource management, other states maintain the right to navigate, fly over, and lay submarine cables and pipelines (Nguyen, 2021).

The continental shelf, the underwater extension of a state's landmass, can extend beyond the EEZ, up to 350 nautical miles or 100 nautical miles past the 2500-metre depth contour (Wright et al., 2016). Wright et al. (2016) further indicate that Coastal states have exclusive rights to exploit minerals and other non-living resources in the seabed. If a nation seeks to extend its claim beyond 200 nautical miles, it must submit a request to the Commission on the Limits of the Continental Shelf.

Beyond national jurisdiction lie the high seas, which cover nearly two-thirds of the world's oceans. These waters play a crucial role in climate regulation, oxygen production besides global fisheries, yet this vast body of water remain largely unregulated, with economic benefits concentrated among a handful of powerful nations and multinational corporations (McCauley et al., 2018). Historically, this lack of governance has raised little concern, as few states had the technology to exploit these remote areas. However, since the 1980s, advancements in fishing technology (Crespo et al., 2018),

growing demand for marine resources (Merino et al., 2012), and the decline of coastal fisheries have driven fleets further offshore (Tickler et al., 2018). As a result, high seas fishing has surged, from less than two million tonnes in the 1950s to over ten million tonnes in recent decades, highlighting the urgent need for stronger international governance mechanisms (Blythe et al., 2021).

Figure 2: Maritime Zone under UNCLOS



Note: Maritime Zones under the UNCLOS. From GRID-Arendal, by R. Pravettoni, 2010. (<https://www.grida.no/resources/7923>).

3.2 Illegal, Unreported and Unregulated (IUU) Fishing Activities

Illegal, Unreported, and Unregulated (IUU) fishing refers to fishing activities that bypass legal frameworks and, in doing so, threaten the sustainability of global fisheries. These activities range from fishing without the necessary licenses or authorisation to misreporting or failing to report catches, fishing in restricted zones, targeting protected species, or operating in areas that lack adequate regulatory oversight (Blaha, 2021; FAO, 2001). Essentially, IUU fishing occurs whenever vessels fail to adhere to national, regional, or international regulatory measures, as outlined in Appendix B (Western and Central Pacific Fisheries Commission, 2025b).

The persistence of IUU fishing presents a significant challenge to the social, economic, and environmental well-being of fisheries worldwide. It undermines the ability of nations to manage their

marine resources effectively, often leading to long-term ecological and economic consequences (Ganapathiraju et al., 2019). The adoption of the Port State Measures Agreement (PSMA), the first legally binding international accord specifically designed to combat IUU fishing has been a critical step forward in addressing the effective management of marine resources by nation-states and enforcement of international regulatory frameworks. Since its enforcement in 2016, the agreement has gained traction, with 78 parties, including the European Union (representing its 27 member states), bringing the total number of participating states to over 100 as of May 2024 (Hosch et al., 2025).

As shown in Appendix C, progress has been made in implementing international measures to combat IUU fishing. Between 2018 and 2024, the global implementation of such instruments improved from an average score of 3 to 4 (on a 5-point scale), reflecting steady advancements. By 2024, approximately 56 per cent of states demonstrated a high level of compliance, compared to 48 per cent in 2018 (FAO, 2024). However, SIDS, such as Kiribati and Tokelau, continue to face significant challenges in fully meeting these commitments. As highlighted in Appendix D, addressing these gaps requires more robust efforts in data collection, improved access to resources, and stronger institutional frameworks to support compliance and enforcement.

3.3 Summary

Chapter 3 has examined the governance of fisheries in the WCPO, where PICs navigate complex negotiations with DWFNs. While regional alliances such as the FFA and the PNA enhance collective bargaining power, challenges remain in ensuring equitable economic benefits and effective enforcement. Despite the WCPO's dominance in global tuna harvests, concerns over sustainability and resource management persist, highlighting the limitations of national jurisdictions over vast ocean territories.

For Kiribati, these challenges are particularly pressing. With one of the world's largest and most productive EEZs, the country relies heavily on fishing license revenues rather than domestic industry development. While initiatives such as the vessel day scheme has increased economic returns for SIDS, enforcement constraints and external pressures limit full sovereignty over its marine resources. Beyond

economic concerns, climate change threatens Kiribati's territorial integrity, raising urgent legal and geopolitical questions. Considering such dynamics, Chapter 4 transitions to the research design and methodology, detailing the case study approach and analytical framework that underpin this study.

Chapter 4: Research Design and Methodology

Chapter 4 covers research design and methodology. Given the complexity of transnational governance and the interplay between IB policies and local regulatory frameworks, I have decided on a single-country case study approach drawing on and integrating available secondary data. The chapter is structured into three key sections. First, I discuss the overall research design and the rationale behind adopting a case study approach. Second, I present my methodology and detail the types of secondary data feeding into the case study, including fisheries commission reports, policy documents, reputable media sites and relevant academic literature. This is followed by how the data has been analysed using content analysis to generate insights into the governance and sustainability challenges facing Kiribati's tuna industry and how they can overcome them. Third, I also discuss some limitations and challenges of using publicly available data, especially in developing countries like Kiribati islands where government and industry reports may vary in detail, frequency and data quality.

4.1 Research Design

In terms of research design, I employ a case study approach to examine the governance and policy challenges associated with the sustainable tuna fishing industry in the Kiribati Islands. The case study method has a long history in IB research, going back to the earliest work studying firm internationalisation processes (Johanson & Vahlne, 1977). Because of that, it has evolved into a kind of “disciplinary convention” (Piekkari et al., 2009, p. 567) and is today considered a cornerstone method for the IB discipline due to its ability to integrate both research context and theorising (Welch et al., 2022).

Fletcher et al. (2018) have identified three pathways for case selection in IB research: deductive, inductive, and a hybrid (abductive) approach blending both. The deductive approach, as outlined by Fletcher et al. (2018), is a theory-driven method in which researchers begin with established frameworks or propositions drawn from existing theory and then test, refine, or extend these through empirical

investigation to assess their applicability in new contexts. However, this deductive pathway is not well-suited as a research design for my study. The sustainability challenges within small island fisheries are highly context-specific, fluid, and embedded in complex socio-ecological systems. Unlike the relatively controlled environments suited for theory testing, the dynamics of ocean governance and tuna management in SIDS involve interdependent social, environmental, cultural, and institutional factors that cannot be adequately captured through rigidly pre-defined theoretical propositions (Welch et al., 2022).

In the inductive pathway, case selection prioritises emerging phenomena over existing theory, aiming to develop new insights, primarily from empirical data. Analysis relies heavily on open-ended data collection and emergent coding, revealing patterns, themes, and propositions, shaping a deeper understanding (Fletcher et al., 2018). While this approach offers flexibility and potential for theoretical innovation, the challenge lies in the fact that my study is not purely exploratory but rather seeks to integrate existing theoretical and policy frameworks, such as the UN SDGs, blue economy principles, and ocean governance, into a context-specific analysis, tailoring them to the local specifics and unique features of the Kiribati Islands. An entirely inductive approach, therefore, could overlook international frameworks and the foundational theories that already inform tuna fisheries management in SIDS, such as those established through regional fisheries organizations or global sustainability agendas.

The hybrid pathway integrates theory-driven case selection with inductive theory-building, where prior theories serve as a guiding lens rather than a rigid framework (Fletcher et al., 2018). The hybrid approach is best-suited in my case, allowing me to draw from existing governance theory and fisheries management frameworks while remaining open to new insights from empirical data. Sustainability governance frameworks make up the primary base for my theory selection. However, my study also remains flexible in the sense that it allows for modification and/or expansion of the theoretical-analytical toolkit based on emerging patterns in Kiribati's fisheries policies (Welch et al., 2011).

Moreover, the hybrid case study approach is particularly well-suited to the complex and context-dependent nature of IB research (Dau et al., 2022; Ghauri & Firth, 2009) and the nature of wicked

problems (Rašković, 2022) linked more broadly to sustainability (van Tulder & van Mil, 2023). For these reasons, a hybrid or abductive approach, which blends inductive discovery with deductive reasoning, can provide a more balanced and appropriate methodological foundation for examining the sustainability and governance of tuna fisheries in SIDS. It allows theory and evidence to inform one another in a dynamic and contextually grounded way.

A case study of Kiribati's sustainable tuna fishing policies and governance offers an in-depth exploration of a specific country- and industry-specific type of wicked problem against a specific environmental context linked to the blue economy paradigm, aligning with the principles of single-case study research design positioned as a *critical case study* (Ridder, 2017). Such an approach is particularly well suited for addressing the why- and how-type questions (Ghauri & Firth, 2009). For example, (*How*) *Can sustainable tuna fishing in the Kiribati Islands be managed as a type of transnational governance nexus under the United Nations' blue economy framework?*

A case study approach also addresses the exclusion of social, cultural, and indigenous contexts in transnational governance frameworks, which has been a common limitation when applying such frameworks. It also directly speaks to the identified need to address the so-call *blue-deficit* in global governance research (Fusco et al., 2022). Secondly, the integration and analysis of rich and diverse types of data from a wide range of sources ensures a more comprehensive understanding of the phenomenon under investigation from multiple stakeholders' perspectives (Hunziker & Blankenagel, 2021), another important feature in addressing wicked problems (Rašković, 2022; van Tulder & van Mil, 2023). Kiribati's case of sustainable tuna fishing thus integrates and extends existing theoretical frameworks by linking global sustainability goals to local realities into a specific type of global nexus while also providing practical insights into governance strategies for other SIDS.

Overall, the adoption of a case study research design enables the integration of Kiribati's specific context with transnational governance theory (Welch et al., 2022), its socio-economic dependence on tuna (Barclay & Cartwright, 2008), the threats from IUU (FAO, 2001), and its vulnerability to climate change as a SIDS. In doing so, it speaks directly to the uniqueness of IB research, as a discipline, which focuses on the examination of place, space and organisation/governance aspects

(Beugelsdijk, 2022). Exploring such type of nexuses requires contextual sensitivity and multiple stakeholder perspectives (van Tulder & van Mil, 2023). It also calls for the consideration of multiple layers of context in IB research (Piekkari et al., 2009), facilitating a comprehensive understanding of how regional frameworks and policies operate within localised governance structures (Fletcher et al., 2018).

4.2 Methods

4.2.1 Data Collection

My methodology relies exclusively on secondary data sources to examine and evaluate 15 RSS schemes and their implication on the governance and policy challenges in Kiribati's sustainable tuna fishing industry. A diverse range of secondary data sources has been used, including business and government reports from key organisations such as the Kiribati Ministry of Fisheries and Marine Resources Development, the FFA, Food Agriculture Organisation (FAO) and the WCPFC to name a few. These sources have provided critical insights into policy developments, governance structures, and industry regulations – often based on expert opinion (von Soest, 2023).

I have also used statistical databases such as StatsNZ and Statista to obtain data on population migration, economic growth (measured through GDP), and broader human development indicators from the World Bank (O'Neill, 2025). Additional data has also been sourced from websites of international agencies and non-governmental organisations involved in fisheries governance and sustainable ocean management. Media reports and feature articles further enriched these datasets, offering contemporary perspectives on industry challenges and governance issues.

To strengthen my study's theoretical foundation and analytical approach, I have also reviewed academic literature on sustainable fisheries governance and international business policies, published predominantly in *Marine Policy* which is an A-ranked journal by the Australian Business Deans Council

(ABDC)⁴ journal ranking list; International Business Review (ABDC: A); Journal of International Business Studies (ABDC: A*); International Studies Quarterly (not ranked by ABDC), International Environmental Agreement: Politics, Law and Economics (not ranked by ABDC), and Science Advances and Global Environmental Change (not ranked by ABDC). Documents containing tables, figures, and statistical data helped identify trends in governance and sustainability measures, while qualitative assessments of governance frameworks provided a deeper contextual understanding.

The Auckland University of Technology (AUT) library database has served as the primary source for accessing relevant academic sources. I have used key international databases, including Business Source Complete (EBSCO)⁵, ScienceDirect⁶, and Google Scholar⁷, to identify high-quality peer-reviewed academic studies. To refine the results and focus on the study's specific regional context, I have applied advanced search settings; for example, within the EBSCOhost database, keyword combinations were employed, such as 'Kiribati' AND 'Sustainability', 'Kiribati' AND 'Sustainability' OR 'Tuna fishing', and 'Kiribati' AND 'Western and Central Pacific Ocean'. These refined search strategies enhanced the depth and relevance of the collected literature. Additionally, I have evaluated the quality of retrieved articles using Scopus CiteScore (Elsevier, n.d.), and the ABDC journal ranking indicators (Australian Business Deans Council, 2022) (see Appendix E).

Beyond academic literature, I also relied on the AUT Library to source statistical databases such as the World Development Indicators (WDI) and IMF eLibrary data. I have accessed country- and industry-specific reports through company and industry databases like Euromonitor's Passport database⁸ (AUT, 2024). By integrating such diverse sources, my study adopts a well-rounded and evidence-based approach to understanding the governance and sustainability challenges facing Kiribati's tuna industry.

⁴ The ABDC Journal List serves as a widely recognised benchmark for assessing the quality and influence of academic research in business and related fields, categorising journals into four tiers (A*, A, B, and C) to guide researchers and institutions in evaluating publication credibility.

⁵ Large database containing key scholarly business journals back as far as 1886.

⁶ Over 1850 journals from Elsevier Science, Academic Press and Harcourt Health Science covering a wide range of disciplines.

⁷ Indexes journal articles, theses / dissertations and other scholarly publications across all disciplines

⁸ An integrated database providing key business intelligence on countries, markets and companies. It provides users with historical statistics and forecasts, analysis of consumers' lifestyle, information sources, brand and company information. Plus, full-text market analysis.

Although I did not carry out any primary data collection in my study (i.e., including any expert interviews), I did engage with a few knowledgeable experts with particular expertise in the area of fishing and SIDS. An AUT academic staff member who previously worked at the Pacific Island Forum for over a decade helped me track down and approach the experts. Once I completed my assessment of the effectiveness of the 15 RSS schemes, I presented my analysis to a handful of experts to receive feedback. This step provided an additional level of robustness for my analysis, which was done exclusively on secondary data. Engaging with experts provided a valuable opportunity to gain deeper insights into relevant issues, inform the development of the RSS evaluation tool, and better understand processes and events that are often not directly observable or well documented (von Soest, 2023). In selecting the experts, I included both “inside experts,” such as representatives from Kiribati’s Ministry of Fisheries and Marine Resource Development, who are directly involved in decision-making processes, and “outside experts,” such as those from the Pacific Islands Forum, who analyse, observe, or engage with these processes from an external perspective. As highlighted by von Soest (2023), this balanced inclusion has enriched my research by combining the practical experience of practitioners with the analytical insight of external observers, thereby strengthening my study’s overall depth, credibility, and contextual understanding.

4.2.2 Data Analysis Method

The case study focuses on the sustainable tuna fishing industry in the Kiribati Islands, examining governance and policy challenges within the context of contemporary issues bounded by the nexus of place, space and organisation typical of IB contexts (Beugelsdijk, 2022). Geographically, the ‘country’ boundaries of the case study are framed within the context of Kiribati’s EEZ in the WCPO. However, while the analysis primarily focuses on secondary data and studies from the 21st century, it is not strictly bound by time, since key regimes and frameworks developed in the 20th century remain essential for addressing the issues and research questions.

These spatial and temporal considerations define the scope of analysis of the case study, ensuring a focused yet historically informed examination of governance and sustainability challenges. Through such a lens, the case study explores broader themes of transnational governance, sustainable resource management, and the economic trade-offs faced by SIDS. By analysing corresponding governance dynamics, it sheds light on the complexities of balancing social and economic development with long-term sustainability in resource-dependent economies – hallmark features of so-called wicked problems (van Tulder & van Mil, 2023) and their implication for policymaking and governance (Rašković, 2022).

The analysis of secondary data in my study relies on content analysis method, which can take on three different approaches (Hsieh & Shannon, 2005) namely: (1) conventional, (2) directed and (3) summative. I will draw on a combination of directed and summative approaches. The application of a directed approach focuses on governance-related aspects connecting to sustainable tuna fishing. The summative approach focuses on summary and synthesis of key governance challenges and other aspects related to Kiribati's sustainable tuna fishing.

Government reports and industry analyses, provide rich, structured information that can help explore trends, policies, and economic factors through context analysis. Similarly, academic studies offer theoretical and practical foundations that complement a research inquiry. Content analysis of such data can integrate and synthesise existing knowledge by examining already collected data and uncovering patterns that may have been overlooked in the original sources and their analyses. It provides contextual breadth, as secondary data often covers broad temporal and spatial scopes, offering insights that would be difficult to obtain through primary research alone (Ali, 2021).

Data from statistical sources, such as GDP growth, fisheries revenue, and migration indicators, has also been analysed using descriptive statistical techniques to identify trends and associations. Cross-referencing multiple data sources enhances the validity and reliability of the findings, ensuring a well-rounded interpretation of governance, sustainability challenges and opportunities.

4.3 Limitations and Challenges

Using only secondary data, regardless of whether they come from a variety of reputable sources and are underpinned by expert opinion, has several limitations. Beyond input quality, one key challenge is the potential for gaps or inconsistencies in publicly available data, as government and industry reports may vary in detail and frequency. Additionally, reliance on secondary sources means that the study is constrained by the accuracy and scope of pre-existing data, which may not always capture recent developments or localised governance nuances.

Data availability, is a persistent issues for SIDS particularly when it comes to complex issues and so-call wicked problems like global health, sustainability and climate change (Gordon-Strachan et al., 2025). This in turn affects their ability to address governance challenges, climate change impacts, and economic dependencies (Arora et al., 2023). Limited data availability makes it difficult to secure international support and track sustainability progress, leading to policy decisions that may not fully reflect their needs.

4.4 Summary

Chapter 4 has outlined the research design and methodological approach employed to examine governance and policy challenges in Kiribati's sustainable tuna fishing industry using case study methodology. Given the complexities of transnational governance and the intersection of global frameworks, a case study approach was chosen to provide comprehensive exploration of industry's regulatory landscape and governance challenges. The chapter has detailed the rationale behind such methodological choice, explaining how secondary data, including government reports, industry analyses, and academic literature, serves as the foundation for two different types of content analysis – directive and summative content analysis.

Next, Chapter 5 focuses on Kiribati and its tuna fishing industry as a *critical case study*, for sustainable tuna fishing, illustrating how the nation navigates the challenges of sustainable fisheries

management within the broader PBE framework and transnational governance. The case study provides a crucial lens for understanding how transnational governance, international policies and economic dependencies shape the sustainable management of tuna resources in one of the world's most strategically significant fishing zones.

Chapter 5: Kiribati - A Critical Case Study

5.1 Introduction

Kiribati's governance challenges related to sustainable tuna fishing serve as a critical case study for understanding the intersection of sustainability, governance, and economic survival in the tuna fishing industry, not just in the WCPO but also beyond. My decision to focus on sustainable tuna fishing stemmed from personal experience living in Kiribati in the early 1990s, coping with the harsh living conditions and a staple diet of fish and rice. Returning to New Zealand, my growing concerns for the island nation and its people fuelled my initial examination of multiple sustainability challenges, which, through personal reflection and a structured research process, I managed to narrow down to transnational fisheries governance with a specific focus on sustainable tuna fisheries. Kiribati's economic dependence on fisheries and its unique geopolitical position make it a compelling case. As a SIDS, Kiribati embodies the tensions and trade-offs between economic development, environmental stewardship, and the strategic navigation of global fisheries governance structures. Such tensions and trade-offs are typical of so-called wicked problems (van Tulder & van Mil, 2023) and represent a key feature, particularly in sustainability research (Parolin et al., 2025).

Tuna fishing is the cornerstone of Kiribati's economy and a key driver of regional and international fisheries governance. Home to some of (if not) the richest tuna stocks in the world, Kiribati plays a crucial role in global seafood supply chains (Campbell & Hanich, 2014). However, it remains vulnerable to shifting market forces (Grimes, 2025), foreign fishing interests (Azmi & Hanich, 2021), and climate-related risks and challenges (Storey & Hunter, 2010). The nation's reliance on fishing license revenues from distant-water fishing nations presents both opportunities and challenges for long-term sustainable tuna fishing (Dubniczki, 2024). While such licenses provide critical fiscal revenue (Asia I. M. F., & Pacific Dept, 2023), they also pose governance challenges, particularly in ensuring equitable resource management and ecological integrity. Balancing economic benefits with conservation policies remains a central theme throughout the chapter.

I focus on the application of the transnational governance framework to analyse and evaluate regulatory standard-setting schemes in Kiribati's approach to tuna fisheries governance. The analysis offers insights into how state and non-state actors influence and shape policy, regulation, and sustainability outcomes. The chapter assesses how Kiribati navigates the pressures of global governance mechanisms and national interests by examining key institutions such as the WCPFC, FAO, FFA, PNA, UN, and market leaders such as Fong Chun Formosa. Through such a framework, I am able to highlight the roles played by international partnerships, development aid, and private sector engagement in shaping Kiribati's policy landscape related to sustainable tuna fishing (and even more widely to marine governance).

I have framed the case study through three interconnected lenses: First, an overview of Kiribati's geographic, vulnerabilities and socio-economic realities. Second, a closer look at the central role of its tuna fishing industry in shaping both livelihoods and national identity and Third, the application of transnational governance as an analytical tool, and the process of assessing the effectiveness of RSS initiatives, particularly through the governance triangle framework, shaping the country's efforts to navigate sustainability, sovereignty, and survival in an increasingly globalised ocean economy marred with wicked problems and policy challenges.

5.2 The Republic of Kiribati

In July 1992, I embarked on a two-year, full-time volunteer service mission for the Church of Jesus Christ of Latter-day Saints, a calling that would take me to the Republic of Kiribati. At just 20 years old, I was both eager and curious about the journey ahead. At the time, I had little knowledge of Kiribati and its physical location. It was only after checking a printed copy of the world map that I discovered a series of tiny, scattered dots stretching from 11°25' S to 4°41' N and from 169°32' E to 150°12' W, nestled in the vast expanse of the Pacific Ocean along the equator (Arp et al., 2012).

Barely visible on the map, these dots represented 32 coral atolls and a single raised island. Though spread across a significant maritime territory of approximately 3.5 million square kilometres

(1.35 million square miles), the total land area of Kiribati amounts to only 811 km² (Sabūnas et al., 2021). The sheer narrowness of these atolls was striking, so much so that in some places, one could toss a pebble from the lagoon side of the island, across the land, and into the Pacific Ocean on the other side.

My expectations of Kiribati were shaped by the images in the Encyclopedia Britannica set on our family bookshelf. These pages depicted pristine golden beaches, crystal-clear waters, and sunsets beyond anything I had ever encountered. Following several weeks of training at the Missionary Training Centre in Hamilton, New Zealand, my journey to Kiribati took me on a six-hour flight north from Auckland International Airport, with a brief layover at Nadi (Fiji). As the Air Nauru 737 descended onto the airstrip in Bonriki, South Tarawa, Kiribati's capital, the once-speculative notion of this distant place suddenly became a reality. However, it was only after my arrival that I truly began to grasp the complexities of life on these remote atolls, an experience that would shape my understanding of island life and its inherent vulnerabilities forever.

5.2.1 The Coral Atolls

Life on coral atolls has always demanded resilience from their inhabitants, as these environments pose significant challenges to establishing sustainable livelihoods and economic growth (Monaco & Abe, 2024). The combination of nutrient-poor soils, unpredictable rainfall, and ongoing struggles with food security has long defined human existence on these remote islands (FAO, 2014). As Thomas succinctly described back in 1963 (as cited in Connell, 2021): “coral reefs with their low sandy islets provide the most limited range of resources for human existence and are the most tenuous of habitats for man in the Pacific” (Connell, 2021, p. 372). In such a context, Kiribati is not an emerging market but rather one of the world's least developed nations (UNCTAD, 2024), with a heavy reliance on international aid for its socio-economic stability (Gordon-Strachan et al., 2025).

5.2.2 Population Growth

When I arrived to Kiribati back in 1992, its population stood at approximately 74,000 (IMF, 2020), by 2020, the number had reached 119,000 (IMF, 2020) a 38 per cent increase over the last three decades. A significant portion of this growth has been concentrated in the urban capital of South Tarawa, where over 70,100 people, accounting for 55 per cent of the national population, now reside (IMF, 2020). Kiribati's demographic profile reflects a young population, with 60.1 per cent of its citizens falling within the age bracket of 15 to 64 years. However, life expectancy remains a challenge, as only 3.9 per cent of the population lives beyond the age of 65. Interestingly, while women make up the majority of the population at 51.7 per cent, men currently have a slightly higher life expectancy, averaging 67.1 years (Passport, 2024).

Between 2013 and 2018, over 29,600 Kiribati citizens were recorded living overseas, seeking livelihoods and life opportunities beyond the shores of their atoll nation (Kiribati National Statistics Office, 2024). While developed countries such as Australia and Aotearoa New Zealand drew many of these migrants, others found a home in fellow Pacific nations like the Marshall Islands. Notably, Fiji has emerged as the most prominent host country during this period, accommodating more than 11,200 Kiribati migrants (Kiribati National Statistics Office, 2024). The motivations behind such outward movement are largely tied to economic aspirations, particularly in sectors such as seafaring and maritime labour, as well as the pursuit of education and vocational advancement.

In Aotearoa New Zealand, a thriving Kiribati community has taken root, more than doubling in size since 2006 to surpass 3,000 individuals by 2018 (Stats NZ, 2018). The Kiribati community continues to grow through multiple channels. Each year, Kiribati sends over 250 workers to New Zealand under the Recognised Seasonal Employer (RSE) scheme, enabling participation in the horticulture and viticulture industries. Additionally, around 15 scholarship recipients from Kiribati undertake studies at tertiary institutions across New Zealand annually (New Zealand Foreign Affairs & Trade, 2021). The Pacific Access Category (PAC) scheme also provides a permanent migration pathway,

offering 75 Kiribati citizens a chance each year to settle in New Zealand (New Zealand Immigration, 2025).

Australia has implemented a similar mechanism through the Pacific Engagement Visa (PEV) program. This initiative offers a ballot-based opportunity for citizens of Pacific Island nations to secure permanent residency, with up to 3,000 PEV available annually. Successful applicants are supported in transitioning to life and work in Australia (Department of Foreign Affairs & Trade, 2024).

Beyond the social and cultural dimensions of migration, the economic contribution of Kiribati workers abroad is felt back home. Remittances, comprising both formal wage transfers and compensation earned by seafarers and seasonal workers, form a crucial part of Kiribati's national income (Trading Economics, 2020). In 2006, such inflows were estimated to contribute around 18 per cent of the country's GDP, much of which derived from the earnings of seafarers serving on international merchant vessels and fishing fleets (Browne, 2006; Trading Economics, 2020). The funds have immediate and tangible effects, supporting families, strengthening local communities, and helping to alleviate life challenges on remote islands. Although the share of remittances declined to approximately 8.25 per cent of GDP in 2020 (The World Bank, 2025), labour mobility schemes in Australia and New Zealand continue to bolster these economic ties (Cornish et al., 2022).

5.2.3 Exports and Imports

Kiribati's economy is deeply connected to the Asia-Pacific region, with trade patterns reflecting strong regional integration (WTO, 2023). Recent trade data highlights that 67.7 per cent of the nation's exports are directed toward Asia-Pacific countries, with Japan (31.8 per cent), Malaysia (17.3 per cent), and Australia (11.5 per cent) emerging as the top three export partners, followed closely by the United States and Fiji (see Figure 7). The nation's export economy (US\$11 million or 5 per cent of GDP) remains highly specialised, with over 80 per cent of agricultural exports consisting of coconut (copra) and palm kernel oil, while nearly 80 per cent of non-agricultural exports are made up of frozen fish, excluding fillets (WTO, 2023).

Similarly, Kiribati's import structure mirrors its export relationships, with 68.2 per cent of imports originating from Asia-Pacific nations. However, imports are worth ten times more than exports at US\$106 million or 47 per cent of GDP. Fiji stands as the country's leading import partner (18 per cent), with Australia, China, Singapore, and New Zealand collectively accounting for the remaining 50.2 per cent (see Figure 8). Among non-agricultural imports, petroleum oils excluding crude oil are the most significant, valued at approximately US\$15 million and comprising 24 per cent of total imports. Additionally, ten-seater transport vehicles and motor cars represent other key imports. On the agricultural side, rice, plants, and manufactured tobacco collectively account for 35 per cent of agricultural imports, valued at approximately US\$17 million (WTO, 2023).

Figure 7: Kiribati's main export destination

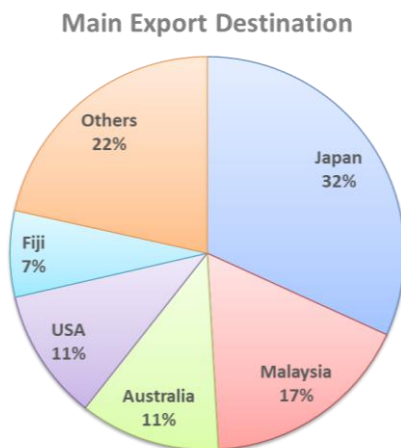
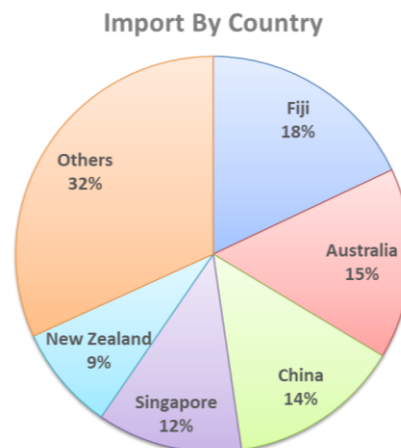


Figure 8: Kiribati's imports by country



Note: Data collected and analysed by the authors on the 20th March 2025 from WTO (2023)

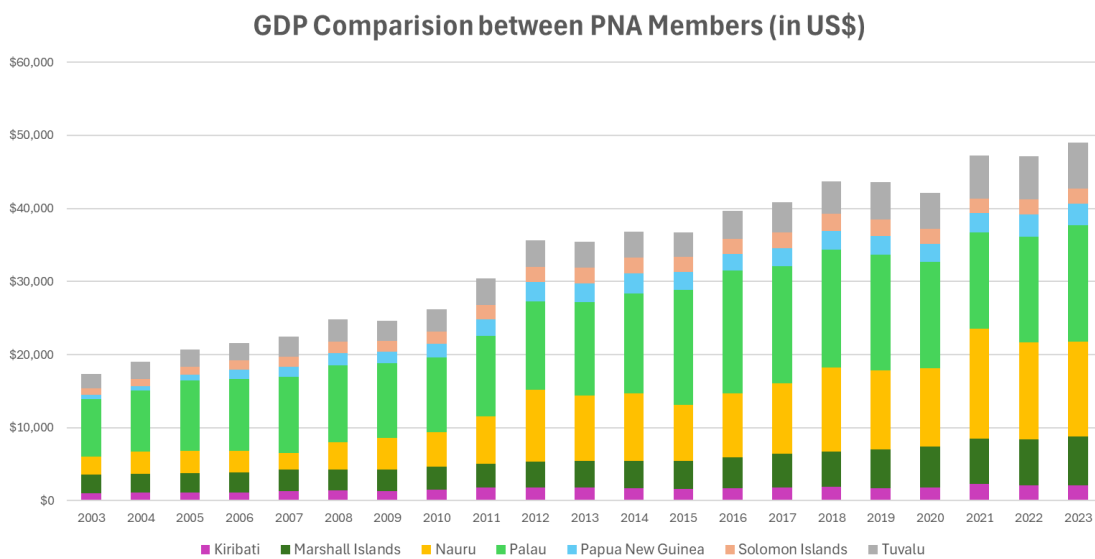
5.2.4 Gross Domestic Product and Human Development Index

In 2023, Kiribati's GDP per capita was estimated at US\$2,106.80, placing it 190th out of 243 countries (The World Bank, 2025). Figure 9 shows that over the past two decades (2003–2023), the country's GDP per capita has averaged around US\$1,359.90, reaching its highest point in 2021 at US\$2,253.82. When compared to other SIDS, Kiribati's economic standing remains significantly lower. For instance, Palau

(US\$15,899.40), Nauru (US\$12,982.80), and Tuvalu (US\$6,344.80) have maintained considerably higher GDP per capita levels within the PCIs (The World Bank Group, 2025).

The figure underscores the nation’s persistent economic challenges, as it remains among the lowest-ranked economies globally. At just 11 per cent of the global average (US\$19,039.35) (The World Bank Group, 2025), Kiribati is classified as one of the least-developed countries by the United Nations (UNCTAD, 2024).

Figure 9: GDP comparison between PNA members (in US\$)



Note: Data collected and analysed by the author on the 20th March 2025 from The World Bank Group (2025)

Kiribati’s Human Development Index (HDI)⁹ reflects both progress and ongoing disparities. In 2022, Kiribati’s HDI score reached 0.628, showing a slight increase from 0.624 in the previous year. Although this upward trend signals gradual development, Kiribati still lags significantly behind the global average of 0.727, based on data from 185 countries. Historically, the country’s HDI has hovered around 0.6 since 2000, with the lowest recorded value of 0.564 in 2000 and the highest of 0.63 in 2020

⁹ The Human Development Index is a composite measure that evaluates a country’s overall progress in three essential aspects of human development: longevity and well-being, educational access, and economic standard of living.

(UN Human Development Report, 2024). These figures underscore the persistent structural challenges that SIDS like Kiribati face in achieving sustainable development and economic resilience.

5.2.4 Inequality, Poverty and Health Care

Kiribati continues to face significant challenges in poverty reduction, though there have been some improvements over time. According to the World Bank data, as of 2019, approximately 68.9 per cent of Kiribati's population lived on less than US\$5.50 per day, a decline from 77.4 per cent in 2006. While this progress is notable, poverty levels in Kiribati remain higher than the global average of 21.09 per cent, based on data from 76 countries. Over the period from 2006 to 2019, Kiribati's poverty rate averaged 73.15 per cent, with the lowest recorded figure being 68.9 per cent in 2019 and the highest reaching 77.4 per cent in 2006 (The Global Economy, 2019).

Between 2010 and 2020, data on poverty levels within PNA members remain limited, reflecting broader challenges in consistent regional data collection. According to figures available from the World Bank, only three member countries reported statistics on the proportion of their populations living on less than US\$5.50 per day during this period. In 2010, Tuvalu recorded a poverty rate of 56.6 per cent, while in 2012, the Solomon Islands reported a strikingly high figure of 88.5 per cent (The Global Economy, 2019).

Kiribati's health sector reflects similar disparities, particularly concerning is the prevalence of non-communicable diseases. Data from the International Diabetes Federation indicates that in 2021, 22.1 per cent of Kiribati's adult population (ages 20–79) had diabetes, a slight decline from 25.3 per cent in 2011 (The Global Economy, 2022). While this decrease is encouraging, the diabetes rate in Kiribati remains alarmingly high when compared to the global average of 8.6 per cent (based on data from 195 countries). Over the decade spanning 2011 to 2021, the average prevalence in Kiribati stood at 23.7 per cent (28,000 people). What is particularly striking is that while Kiribati continues to report the highest rate of diabetes, neighbouring nations are also witnessing a troubling rise. During the same timeframe, Palau experienced a 53 per cent increase from 11.1 per cent (2,200) in 2011 to 16.7 per cent

(3,400) in 2021. Papua New Guinea saw a staggering rise of 120 per cent from 7.6 per cent to 16.7 per cent, while the Solomon Islands and Tuvalu recorded increases of 29 per cent and 6 per cent, respectively, underscoring the scale and persistence of the challenge and the need for sustained public health interventions to address such widespread issue (The Global Economy, 2022).

Investment in healthcare remains a key concern, with per capita health expenditure in Kiribati reaching US\$262 in 2021, an increase from US\$239 in the previous year. However, this figure remains significantly lower than in other Pacific Island nations, such as Palau (US\$2,045.3) and Tuvalu (US\$1,070.96). Moreover, Kiribati's healthcare spending remains well below the global average of US\$1,402.97, based on data from 181 countries. Over the past two decades, per capita health expenditure in Kiribati has averaged approximately US\$150.95 (The Global Economy, 2022).

5.2.5 Multiple Vulnerabilities

This section examines the interconnected vulnerabilities that shape both everyday life and long-term development paths in Kiribati, particularly through the lens of environmental sustainability and public health. Drawing on firsthand observation, lived experience and framed as nexus challenges (Estoque, 2023; Yupanqui et al., 2025), the issues of inadequate sanitation, limited access to clean water, and the intensifying impacts of climate change are not isolated problems but part of a broader web of pressures facing SIDS. These challenges have direct implications for the governance and sustainability of key economic sectors, particularly the tuna fishing industry, which is central to Kiribati's economy and future resilience. By situating these vulnerabilities within the wider context of sustainable tuna governance, the section highlights how infrastructural fragility, environmental stress, and community health risks can undermine both domestic well-being and the long-term viability of resource-dependent industries in the Pacific region.

5.2.5.1 Human waste and sewerage system

During my first week in South Tarawa, I was struck by the persistent environmental challenges despite it being the capital and urban centre of Kiribati. Two immediate concerns stood out: the inadequate sanitation infrastructure and the lack of access to clean drinking water. Open defecation on beaches remains widespread, not only due to a lack of proper toilet facilities but also because it is considered a social practice among some community members (Cauchi et al., 2021). Where sewerage outfalls have failed, sludge accumulates along the shoreline, producing persistent foul odours.

Efforts to improve sanitation have been made, including the installation of pit latrines¹⁰ under a World Health Organization (WHO) initiative. These latrines are designed to be dug at least 30 metres down-gradient from the nearest water well, ideally on the ocean or lagoon side of the island (Cauchi et al., 2021). However, this standard is not always followed, and many latrines are located dangerously close to wells, raising concerns about water contamination. There has been little monitoring to assess the extent of potential pollution from these sanitation facilities. Furthermore, design challenges have led to a community preference for flush toilets, with considerable resistance to the adoption of composting toilets.

5.2.5.2 Clean water

Before the introduction of bottled water and desalination, the primary sources of freshwater for Kiribati's island communities were rainwater collection and shallow groundwater wells, typically located less than two metres below the surface (Carden, 2003). The availability of fresh groundwater is dependent on a delicate freshwater lens that sits above seawater within the island's porous limestone foundation. However, this water source is highly vulnerable to contamination and depletion due to natural and human-induced factors. Storm surges, droughts, and excessive extraction can lead to saltwater intrusion, further threatening water security (Carden, 2003).

¹⁰ A pit latrine, also called a pit toilet or long drop, is a basic sanitation facility that disposes of human waste in a dug-out pit in the ground. Often covered by a concrete slab with a drop hole, it is a widely used solution in areas where water resources are scarce.

The consequences of limited access to safe drinking water are profound. For example, in 2022, the Pacific Data Hub (2022) reported that nearly a quarter (24 per cent) of Kiribati's urban population approximately 13,680 people lacked access to safely managed drinking water. The situation is similarly troubling when it comes to hygiene and sanitation: over 44 per cent of urban residents had no access to basic handwashing facilities, and roughly 75 per cent were without safely managed sanitation services (Pacific Data Hub, 2022). When these urban figures are considered alongside the rural population of more than 43,000 (The World Bank, 2022) people living in outer island communities, many of whom face limited or no access to clean drinking water, the scale of the challenge becomes clearer.

Waterborne diseases are a major public health concern, significantly contributing to illness and mortality, particularly among children. Diarrheal diseases remain one of the leading causes of death in Kiribati, which has one of the highest infant mortality rates in the Pacific. Statistics from Euromonitor's Passport database (2024) indicate 46 deaths per 1,000 live births (Passport, 2024). Before travelling to Kiribati, I did not fully appreciate the importance of vaccinations. I quickly understood why immunisation against hepatitis A and B, typhoid, influenza, diphtheria, tetanus, and pertussis (dTdap) was essential (Passport Health, 2025).

5.2.5.3 Climate Change

For Pacific Island nations like Kiribati, climate change is not an imminent threat but an immediate crisis (Morgan et al., 2022). Rising sea levels and increasing climate variability are already having significant consequences for both the environment and daily life (van Wegen, 2023). Since my arrival in South Tarawa over 30 years ago, these changes have become increasingly evident.

In an interview with Mr. Tion Uriam, Kiribati's national coordinator for hydrography and charting at the Ministry of Information, Communications, and Transport, he described how climate change has altered everyday life in Kiribati and across the Pacific. He explained: "*Climate change and sea-level rise have had a significant impact on everyday life in Kiribati and other Pacific Island countries. Rising sea levels have led to increased coastal erosion and saltwater intrusion into our*

freshwater lens. We are experiencing the effects of La Niña, which has brought prolonged drought conditions. Many Pacific nations share these challenges, though the severity varies by location” (van Wegen, 2023, p. 1).

Pacific leaders have long recognised the existential threat posed by climate change. As the chair of the Pacific Islands Forum, Fijian Prime Minister Voreqe Bainimarama emphasised the urgency of the situation, stating: “*Geopolitical point-scoring means little to anyone whose community is slipping beneath the rising seas*” (Morgan et al., 2022, p. 1). The 2018 Boe Declaration on Regional Security reinforced this, declaring climate change the greatest single threat to the livelihoods, security, and well-being of Pacific peoples (Morgan et al., 2022).

The vulnerability of Kiribati to rising sea levels has been well-documented (Morgan et al., 2024; Storey & Hunter, 2010) and advocated for decades (see Appendix F). As early as 1989, a United Nations report identified Kiribati as one of most at risk from climate change (Iberdrola, 2025). By 1999, two of Kiribati’s uninhabited islands, Abanuea and Tebua Tarawa, had already disappeared under water (Iqbal et al., 2020). Today, storm surges frequently flood homes, contaminate freshwater supplies, and destroy crops.

Projections from NASA’s sea level change science team estimate that Pacific Island nations, including Kiribati, will experience at least 15 centimetres (6 inches) of sea level rise within the next 30 years, an unavoidable consequence regardless of future global emissions reductions (NASA, 2024). By the end of the 21st century, sea levels in Kiribati could rise by anywhere from 50 centimetres (1.5 feet) to over 1 metre (3 feet), depending on global warming trends. In the worst-case scenario, this rise could reach 2 metres (6.5 feet) (Brennan, 2024). Should these predictions hold true, the atoll of Tarawa may become uninhabitable within a generation (Iberdrola, 2025). The reality of life in Kiribati presents a striking contrast to the picturesque scenes often portrayed in travel guides and encyclopedias. The daily realities of sustainable and infrastructural challenges paint a far more complex and urgent picture, one that aligns closely with what Storey and Hunter (2010) describe Kiribati as “*An environmental perfect storm*” (p. 167).

5.3 Kiribati Tuna Fishing Industry

At the age of twenty, I stood 1.8 metres tall and weighed 110 kilograms, a physique typical of a young Polynesian male of Samoan heritage. Prior to my departure for Kiribati, a routine medical examination and body mass index (BMI)¹¹ test categorised me as obese, with a BMI of 33.95, placing me at high risk for obesity-related diseases. After spending two years in Kiribati, I returned home slightly taller at 1.84 metres but significantly leaner, weighing just 65 kilograms, my skin deeply tanned from the sun. Upon my arrival at the airport, my physical deterioration was so overwhelming that my family could hardly recognise me. My distressed mother, became emotional observing my weakened state and repeatedly asked: “What happened?”

My BMI had dropped to 19.20, placing me now within the healthy weight range. While my dramatic weight loss caused distress among the family, it also sparked a deeper curiosity: how had living on these remote atolls contributed to such a significant physical transformation? Life in Kiribati revolved around the ocean, not just as a source of sustenance but as an economic lifeline. Our daily meals centred on seafood, fish for breakfast, lunch, and dinner, accompanied by simple staples such as rice or breadfruit (Eme et al., 2019). While a variety of marine life occasionally enriched our diets, such as spiny lobster, moray eels, mantis shrimp, shark, and baby squid, the bulk of our seafood consumption was made up of milkfish, commonly bred in coastal ponds (Basco & Izumi, 2011), bigeye tuna, yellowfin tuna and other reef fish. Tuna, in particular, is not just a staple of daily life but a pillar of the Kiribati economy, generating millions of dollars in revenue through fishing licenses (Senina et al., 2018; The World Bank, 2020).

Unlike many Pacific Island nations with fertile lands that support diverse agriculture (Georgeou et al., 2022), Kiribati’s low-lying atolls offer little arable soil, making the ocean its most vital resource (FAO, 2018). For generations, the Kiribati people have depended on the sea not just for sustenance but as the foundation of their livelihoods and cultural identity (Campbell et al., 2024). The sight of freshly

¹¹ Health professionals use BMI as one of several tools to assess the risk of heart attack and stroke. A BMI below 18.5 is considered low, 18.5–24.9 is within the normal range, and 25 or higher exceeds the standard range, potentially indicating health risks.

caught fish along village roads, with sales facilitated by children and the elderly, highlights the embeddedness of small-scale fisheries within the community's socio-economic practices and underscores the ocean's significant role in sustaining local livelihoods.

The reliance on marine resources extends beyond Kiribati's shores, as the nation plays a crucial role in global fisheries. Kiribati's vast EEZ is among the most productive fishing grounds in the world (Xuande & Yuting, 2021), attracting international fleets such from the USA, Japan, Republic of Korea, China and Taiwan (Dubniczki, 2024), and contributing significantly to the global seafood supply (Asia & Pacific Dept, 2023). Fisheries are not just a local necessity but a major economic driver, shaping both regional and global markets. Worldwide, fisheries sustain millions of livelihoods and provide essential nutrition (Vianna et al., 2020). The commercial capture fisheries sector, including marine fisheries, has been estimated to generate US\$274 billion in global GDP, highlighting its far-reaching economic importance (Dang et al., 2017). For Kiribati, where land-based industries are limited, the ocean remains its most significant economic asset, linking this small island nation to the larger currents of global trade and sustainability efforts.

5.3.1 Kiribati Management of Marine Fisheries

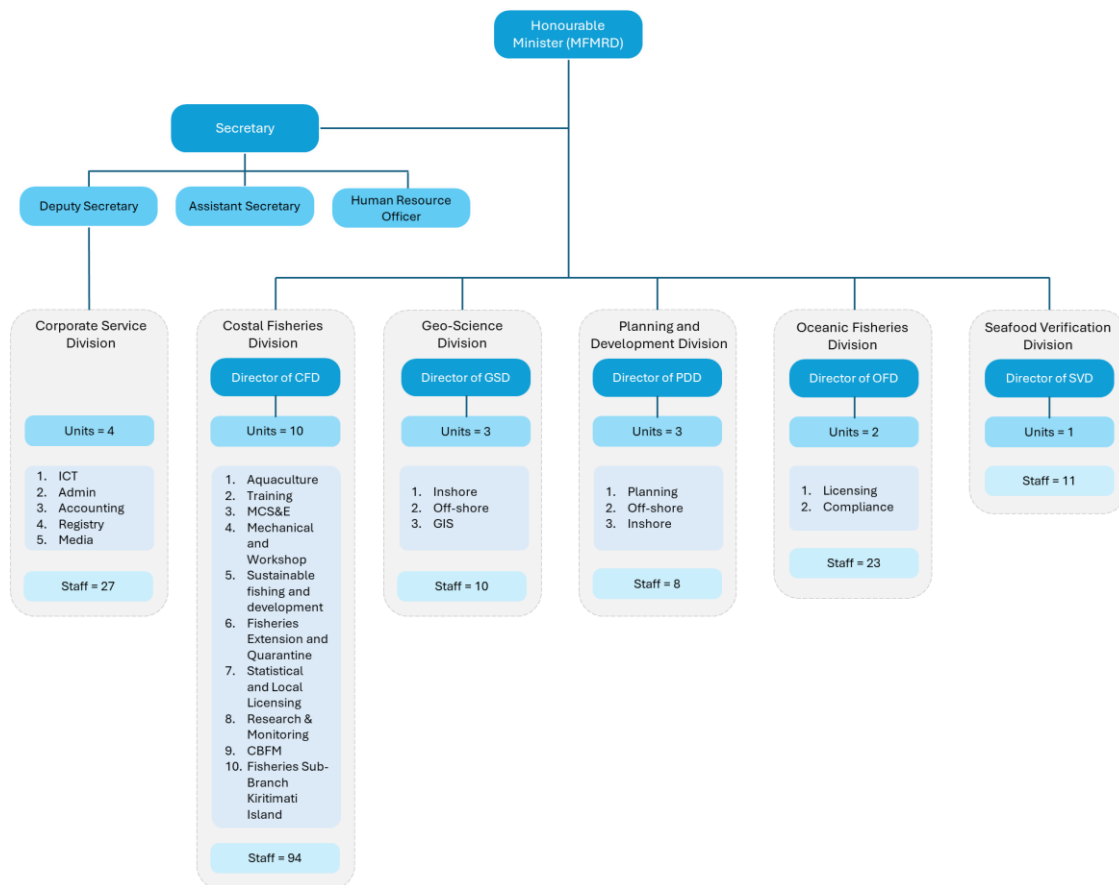
In Kiribati, the management of marine fisheries follows a structured system that connects national policies with local and international implementation (MFOR, 2025a). As illustrated in Figure 10, such a governance structure is designed to ensure the responsible stewardship of the country's marine resources.

At its core is the Ministry of Fisheries and Marine Resource Development (MFMRD), which plays a vital role in shaping fisheries policies, regulating activities, and enforcing laws within Kiribati's EEZ, in accordance with the Fisheries Act of 2010 (Kiribati Government, 2010). The approach reflects the government's effort to balance economic gains with long-term sustainability, ensuring that marine resources continue to support both present and future generations (MFOR, 2025d).

5.3.1.1 Coastal Fisheries Division

The Coastal Fisheries Division (CFD), operating within the Ministry of Fisheries and Ocean Resources (MFOR), plays a crucial role in managing and sustaining Kiribati’s nearshore and coastal marine resources. With a focus on balancing economic returns and social well-being, the division aligns its strategies with the Kiribati National Fisheries Policy and the Kiribati Development Plan (Kiribati Environment Data Portal, 2021). By doing so, the CFD aims to ensure that the benefits of coastal fisheries extend not only to the current population but also to future generations (Pacific Community, 2022). This commitment underscores the government’s recognition of the essential role marine resources play in the nation’s economic and social fabric.

Figure 10: Kiribati Marine Fisheries Management Structure



Note: Organisational chart of Kiribati marine fisheries management and governance structure in n.d. Adapted from our organisational, by MFMRD, 2025. (<https://www.mfor.gov.ki/index.php/about/our-organisation>).

Coastal fisheries are deeply embedded in the lives of the Kiribati people, serving as a primary source of food, livelihoods, and economic stability. With one of the highest seafood consumption rates per capita in the world (FAO, 2018), the nation relies heavily on its marine resources for food security. Additionally, fisheries provide widespread employment, as reflected in a national census where over half of surveyed households reported engaging in fishing activities (MFOR, 2025a). This high level of participation highlights the critical role that well-managed coastal fisheries play in sustaining community well-being and economic resilience (Keen et al., 2018).

Despite its significance, the management of coastal fisheries faces considerable challenges. Limited institutional capacity (Bergin & Bateman, 1999), financial constraints (Pretes & Petersen, 2004), and gaps in legal frameworks (Vogt, 2019) hinder effective enforcement and compliance with fisheries regulations. Island Councils, which oversee natural resource use under the Local Government Act, are responsible for implementing fishing regulations through local by-laws (MFOR, 2025b). However, strengthening management systems and enhancing institutional capacity remain pressing priorities. Addressing these challenges is essential to ensuring that Kiribati's coastal fisheries continue to support the nation's population in a sustainable and equitable manner.

5.3.1.2 Oceanic Fisheries Division

The Oceanic Fisheries Division (OFD), operating under the MFOR plays a vital role in managing Kiribati's offshore fisheries, with a particular focus on maximising economic benefits from tuna fishing while ensuring long-term sustainability. The division works within national, regional, and international frameworks to implement responsible fisheries management and conservation measures. By balancing economic opportunities with sustainable practices, the OFD helps safeguard Kiribati's marine resources for future generations while maintaining its position in the global tuna industry.

The division is structured into two key units: the Licence Unit and the Compliance Unit (MFOR, 2025d). The Licence Unit oversees access agreements, vessel certifications, licensing, and revenue collection, ensuring that fishing activities within Kiribati's EEZ adhere to formal agreements. The

Compliance Unit, on the other hand, is responsible for monitoring and enforcement, ensuring that licensed vessels comply with national and international fishing regulations. This includes surveillance operations (Goodman, 2013), observer placement, and inspections to combat IUU fishing. The Vessel Monitoring Scheme (VMS) and Kiribati Observers (KIOB) further strengthen the division's capacity to track and regulate fishing activities.

Collaboration is essential to OFD's success, and the division works closely with a range of government ministries, enforcement agencies, and international fisheries bodies (Guggisberg et al., 2022). Domestically, key partners include the Ministry of Justice (MoJ), Police Maritime Unit (PMU), Customs, and the Ministry of Foreign Affairs & Immigration, among others. Regionally and internationally, OFD engages with organisations such as the FFA, PNA, the Pacific Community (SPC) and major tuna commissions like the WCPFC. Additionally, the division is actively involved in national security efforts through its participation in the Combined Law Agency Group (CLAG) and the Fisheries Administrative Penalty Committee (FAPCOM), ensuring that Kiribati's marine resources are protected from external threats while reinforcing national and regional security frameworks (MFOR, 2025a).

5.3.2 Kiribati Exclusive Economic Zone

In 1978, Kiribati declared its EEZ (see Appendix G), securing sovereign rights over a vast expanse of ocean and the authority to charge foreign fishing vessels for access (Bergin & Bateman, 1999). Spanning an impressive 3.55 million square kilometres (Westerveld, 2019), an area comparable in size to India (Xuande & Yuting, 2021). Kiribati's EEZ is the largest productive tuna fishery (Webb, 2020), and the most recognized fishing zones in the WCPO in terms of offshore catch volume (The World Bank, 2020). The country's tuna industry is primarily sustained by longline, purse seine, and pole-and-line fishing operations, with purse seiners, particularly those targeting skipjack tuna, accounting for the majority of the total catch (Azmi & Hanich, 2021) (see Appendix H).

The signing of the Party to the Nauru Agreement (PNA) in 1982 marked a pivotal shift in Pacific Island fisheries governance, as seven coastal states, later joined by Tuvalu asserted greater control over

their tuna resources (Webb, 2020). This agreement laid the foundation for the PNA members to collectively play a dominant role in managing tuna stocks within their exclusive economic zones. By the late 1990s, the PNA states were responsible for nearly all (98 per cent) tuna caught within the EEZs of FFA members, with Papua New Guinea, the Federated States of Micronesia, and Kiribati accounting for the majority (70 per cent) (Azmi & Hanich, 2021). Furthermore, the group commanded significant economic influence, securing the vast majority of access fees paid to Pacific Island states. Through strategic management of these fisheries, the PNA has not only strengthened regional cooperation but has also reinforced the sovereign rights of PICs over their marine resources (FAO, 2018).

5.3.3 Distant Water Fishing Nations

The industrial tuna fisheries operating within Kiribati's EEZ waters are largely controlled by foreign fleets often categorized as DWFNs (Campbell & Hanich, 2014). Among the major fishing nations, the United States, Japan, Taiwan and the Republic of Korea operate approximately 126 purse seine vessels, collectively accounts around 75 per cent of the purse-seine catch (see Appendix I). Meanwhile, the longline sector is even more heavily dominated, with the Republic of Korea, China, and Taiwan together operating an estimated 235 vessels. Of these, Korea alone accounts for 112 longline vessels (Campbell & Hanich, 2014). Kiribati has increasingly benefited from its marine resources, particularly through the implementation of the Vessel Day Scheme (VDS)¹² (Azmi & Hanich, 2021).

The impact of the scheme is evident in the country's revenue growth. Between 2007 and 2016, annual fishing license revenues rose from US\$25.1 million to US\$121.8 million, peaking at US\$155.8 million in 2015 (Asia & Pacific Dept, 2023; Dubniczki, 2024). In contrast, Kiribati's manufacturing sector remains underdeveloped, contributing just 9.92 per cent (see Appendix J) to the nation's GDP in 2020 (O'Neill, 2025). The country's economy is overwhelmingly dependent on fishing revenues, which

¹² The Vessel Day Scheme (VDS), implemented by the PNA Agreement, allocates an annual Total Allowable Effort, capping the number of days that fishing vessels may operate across member states' EEZ. Each state receives a share of fishing days, which can be traded to accommodate varying national needs, promoting both regional cooperation and adaptive management of shared tuna resources.

averaged US\$122 million between 2015 and 2020, accounting for around 70 per cent of GDP (Ketaren & Lestari, 2024; Webb, 2020).

5.3.4 State Owned Enterprise, Partnerships and Joint Ventures

Revenue collected from access fees was largely due to significant revisions in fishing access agreements and licensing conditions, which have since become a key focus for ongoing policy refinements. The corresponding adjustments not only strengthened the regulatory framework governing Kiribati's marine resources but also opened avenues for further revenue growth. The State-Owned Enterprise Central Pacific Producers Limited (CPPL), plays a crucial role in supporting national fisheries development and resource marketing. Established in 2001 and fully owned by the Government of Kiribati, CPPL has steadily expanded its operations from its headquarters in Tarawa, contributing to the nation's broader economic strategy.

A pivotal shift in Kiribati's fisheries sector occurred in 2012 with the establishment of Kiribati Fishing Limited (KFL) and Kiritimati Fishing Limited (KIFL). A joint venture between the Government of Kiribati, Golden Ocean Fish of Fiji, and Shanghai Deep Sea Fishing of China, these initiatives marked the first major step in bringing fishery development directly to Kiribati, creating new employment opportunities and fostering local expertise in fish processing (Kiribati Fishing Limited, n.d). The government has also taken strategic measures to reduce its dependence on revenues from foreign fishing vessels, instead prioritising joint ventures that enhance domestic harvesting capacity. This approach not only increases local employment but also strengthens onshore fisheries infrastructure, paving the way for greater economic diversification and a more sustainable future for Kiribati's marine resources (Kiribati Fishing Limited, n.d).

KFL oversees a fleet of more than 15 chartered longline fishing vessels that operate within Kiribati's EEZ. These vessels are equipped with advanced freezing and ice-storage facilities, vessel monitoring systems, and, in the case of the largest vessel, a high-capacity super freezer. In alignment with national policies and non-governmental initiatives, KFL actively supports value-added artisanal

fisheries, creating new market opportunities for thousands of indigenous Kiribati fishers (Kiribati Fishing Limited, n.d).

As a member of the WCPFC, these SOEs and joint ventures upholds sustainable fishing practices, including adherence to Dolphin-Safe protocols (Campling et al., 2017). The company operates under the jurisdiction of the Kiribati government, strictly complying with regulations that prohibit IUU fishing. Through these commitments, KFL contributes to the sustainable management of Kiribati's vital marine resources while ensuring long-term benefits for the nation's economy and its people.

A significant step in this direction was the completion of a state-of-the-art fish processing facility on Tarawa in 2012, a project valued at over US\$8 million, funded by the Kiribati government in partnership with Golden Ocean Fish of Fiji, and Shanghai Deep Sea Fishing of China (MFOR, 2025c). The plant now provides stable employment for hundreds of workers while offering thousands of indigenous Kiribati fishers a reliable market for their catch. Looking ahead, plans for a second facility on Kiritimati Island highlight the continued commitment to expanding economic opportunities and reinforcing the country's role in sustainable fisheries management (MFOR, 2025c).

5.3.5 Limited Capacity and Logistic Constraints

For SIDS like Kiribati, the governance of marine resources remains complicated by limited capacity and logistical constraints (Fujii et al., 2021; GGGI, 2024; Goodman, 2013). The ocean is their primary economic asset, yet effective surveillance and enforcement within such vast maritime territories remain daunting. Despite overseeing an EEZ larger than India's landmass, Kiribati operates with just a single patrol vessel (Bergin & Bateman, 1999; Western and Central Pacific Fisheries Commission, 2025b).

To address such challenges, regional cooperation has been strengthened under the Niue Treaty (NT) on Cooperation in Fisheries Surveillance and Law Enforcement, signed on 2 November 2012 by members of the FFA, which facilitates aerial surveillance by Australia, New Zealand, and France across much of the Pacific (Goodman, 2013). The treaty is more than just another fisheries agreement. As overfishing depletes fish stocks in many parts of the world (Miller et al., 2014), the rich tuna resources

of the Pacific have become increasingly attractive to global fishing fleets (Campbell & Hanich, 2014). In this context, the treaty serves as a critical mechanism for enhancing collective governance and protecting national interests (Fujii et al., 2021).

Furthermore, recognising the urgency for conservation, Kiribati took a bold step in 2015 by banning commercial fishing within the Phoenix Islands Protected Area (PIPA). Comparable in size to California, PIPA has drawn global interest, particularly from NGOs such as Greenpeace, as a framework for marine conservation and sustainability (Vogt, 2019). The initiative has since inspired similar conservation efforts in the Cook Islands and Tokelau (Smith, 2015).

Despite such proactive measures, Vogt (2019) and other scholars (Busby, 2018; Klöck & Nunn, 2019; Yamamoto, 2020; Yates et al., 2023) expressed an existential threat of climate change, which looms largely over Kiribati and other low-lying atoll nations. Vogt (2019) has raised the potential for such SIDS disappearing due to climate change: *“in where or when ‘disappearing’ island states (those being altered and submerged due to rising sea levels and increasingly rapid climate change) cease to exist as sovereign territories”?* (p. 143). These concerns are central to supporting the research question of this study: *“What are the key (international business) policy challenges facing Kiribati’s sustainable fishing industry, and how can they be effectively addressed”?*

These challenges are further compounded by the legal framework of UNCLOS. While UNCLOS establishes a foundation for resolving maritime disputes, assessments by Chowdhury et al. (2024) highlight ambiguities in its language, vague terms of reference, and conflicting provisions. Major powers often leverage Part XV (Articles 279–299) (Cho, 2024), to contest maritime claims, making it particularly difficult for smaller states to navigate legal proceedings. These ambiguities within UNCLOS further complicate the challenges faced by SIDS, emphasising the need for complementary legal frameworks and region-specific approaches to address power imbalances and support sustainable ocean governance (Chowdhury et al., 2024).

However, such uncertainties also present an opportunity for PICs to shape international legal discourse in ways that reinforce their claims to maritime territories (Nguyen, 2021). As PICs collectively hold nearly 30 per cent of the world’s EEZs (Vogt, 2019), securing long-term recognition and protection

of these maritime zones has become an urgent priority, not only for social and economic sustainability but for national survival itself.

5.4 Applying the Transnational Governance Framework as an Analytical Tool

More than a decade ago, growing concern over the state of the world's fisheries brought to light a troubling reality: 25-30 per cent of global fish stocks were either overexploited, depleted, or recovering from overexploitation (Khan & Neis, 2010). Since then, the situation has not improved significantly. A recent report from the UN General Assembly on Economic and Social Council outlines an increasingly precarious state of the world's oceans, declining fish stocks, marine pollution, ocean acidification, and climate-induced habitat loss now pose serious threats to both marine ecosystems and the livelihoods of coastal communities across the globe (United Nations, 2024).

In the Pacific Islands region, where many national economies are closely tied to tuna fisheries, government performance in managing marine resources continues to be in the spotlight (Barclay & Cartwright, 2007; Demeshko et al., 2024; Pons et al., 2023). The scrutiny is part of a broader global concern as the oceans face mounting pressure from overfishing, IUU fishing activities (Blaha, 2021), marine pollution (Mahon & Fanning, 2019), and the accelerating impacts of climate change (Senina et al., 2018; Persson & Dzebo, 2019).

The report signals a clear call to action. Addressing such pressing challenges demands not only urgency but also the presence of effective and responsive governance. Yet, VUCA-type conditions¹³ influence both the execution and the effectiveness of transnational governance, as well as shaping the accompanying global business environment and the reality that organisations and society operate amid constant changes and unpredictability (Clegg et al., 2019). In response, States, NGOs and Firms are encouraged to build resilience against volatility, seek and analyse information to manage uncertainty,

¹³ Referring to conditions of volatility, uncertainty, complexity and ambiguity often associated with wicked problems (Rašković, 2022).

strengthen expertise to navigate complexity, and adopt adaptive learning approaches to address ambiguity.

With growing uncertainty and rising geopolitical issues, nations everywhere, regardless of their level of development, are seeking governance models that better reflect current realities (Spalding & de Ycaza, 2020). Governing fisheries in a VUCA-type environment presents a particularly wicked challenge with its entanglement of ecological, political, and socioeconomic dimensions (de Salas et al., 2022). As Khan and Neis (2010) observe, “wicked problems are complex, persistent or reoccurring and hard to fix because they are linked to broader social, economic and policy issues” (p. 347).

Contemporary ocean governance is shaped by a web of diverse actors and perspectives, each bringing different values, interests, and priorities (Haas et al., 2022). Within the context of sustainable development and ocean governance, the VUCA framework offers a valuable lens for understanding and responding to the dynamic, interconnected, and often unpredictable challenges (van Tulder & van Mil, 2023) that shape global marine systems and policy environments. This section of my research focuses on the governance processes underpinning sustainable tuna management in the WCPO region, particularly the effective use of RSS schemes, their design, co-creation, and implementation.

It presents a conceptual framework for RSS evaluation, which is used to assess RSS schemes in Kiribati’s sustainable tuna fisheries governance. I begins with a definition of governance beyond state institutions (Keping, 2018). I then outline five specific drivers of ocean governance, as discussed by Haas and colleagues (2022), integrating them with the guiding values of the UN SDGs (United Nations, 2024) to develop a set of effective governance principles. These principles form the basis for selecting and assessing the relevance of different RSS, culminating in an analytical matrix reflecting their effectiveness within Kiribati’s ocean governance landscape.

5.4.1 Criteria and Principles of Good Governance

To understand governance, what ‘good governance’ is and how it functions, it is useful to turn to Keping (2018), who outlines five key propositions that have shaped the way governance is commonly

understood in the field of political studies. First, governance does not refer solely to the institutions of government, but rather to a broader constellation of actors and institutions, inside and outside the formal state. Second, it highlights the blurring of boundaries and responsibilities in addressing complex social and economic issues, often framed as wicked problems. Third, governance draws attention to the power dependencies shaping relationships among institutions engaged in collective efforts. Fourth, it emphasises the significance of self-organising networks operating with a degree of autonomy. And finally, fifth, governance speaks to the ability to achieve collective goals without relying exclusively on the coercive power of the state (Keping, 2018).

These ideas are not new. As early as 1995, the Commission on Global Governance, in its *Global Neighbourhood* report, offered a definition that remains remarkably relevant today. As cited by Keping (2018), the Commission described governance as: “the sum of the many ways individuals and institutions, public and private, manage their common affairs. It is a continuing process through which conflicting or diverse interests may be accommodated and cooperative action may be taken. It includes formal institutions and regimes empowered to enforce compliance, as well as informal arrangements that people and institutions either have agreed to or perceive to be in their interest” (p. 3).

5.4.2 Guiding value of UN SDGs #13, #14 and #17

The broad and inclusive view of governance discussed by Keping (2018) aligns closely with contemporary efforts to advance sustainability, especially within ocean spaces where environmental, political, social, and economic dimensions are closely intertwined. In seeking to frame transnational governance and, more specifically, what defines sound and sustainable ocean governance, my study draws upon the guiding values embedded in the UN SDG #13 (Climate Action), #14 (Life Below Water), and #17 (Partnerships for the Goals) as well as their associated targets.

Since their adoption in 2015 by over 125 UN member states (Medina-Hernández et al., 2023), the UN SDGs have helped shape governance priorities around the world. With 17 goals, 169 targets, and 231 indicators, the UN SDGs emerged from an ambitious and wide-reaching process of global

consultation, one that involved not only governments but also private enterprises, civil society organisations, research institutions, and millions of individual contributions from people worldwide (Van Tulder et al., 2021). As Haas et al. (2022) and van Tulder and van Mil (2023) point out, the UN SDGs have provided the backbone for navigating governance complexities while also influencing a broad array of actors with differing worldviews, values, and goals.

Alongside Keping's (2018) principles of good governance and the guiding values of the UN SDGs, my study also incorporates the five key drivers that have influenced change in ocean governance identified by Haas et al. (2022). Collectively, they offer a grounded yet flexible lens for considering governance in practice. The above-discussed frameworks serve as the foundation in assisting to develop a set of principles aimed at evaluating the effectiveness of RSS schemes pertaining to Kiribati's efforts to manage its tuna fisheries sustainably within the WCPO.

5.4.3 The Five Drivers of Ocean Governance

The five key drivers of ocean governance outlined by Haas et al. (2022) offer a well thought out and practical guide to evaluate the effectiveness of RSS schemes. They reflect not only the academic and policy expertise of the authors but also the insights gathered from a series of collaborative workshops (Haas et al., 2022). The first driver highlights the role of formal rules and institutions laws, norms, and regulations shaping governance structures and guiding actor behaviour (Spalding & de Ycaza, 2020). Effective institutional arrangements, built on clear rules and strong enforcement mechanisms, remain fundamental for achieving responsible resource management (Bartley, 2018). Equally critical is the second driver related to: the integration of knowledge and evidence into decision-making. Good governance depends on the exchange of knowledge between science and policy, along with meaningful inclusion of traditional and community-based knowledge systems, especially indigenous knowledge (Banerjee, 2022; Muzio, 2022).

The remaining three drivers speak more directly to the human dimension of governance. The legitimacy of institutions (i.e., the third driver) captures the degree of fairness, transparency, and

trustworthiness of decision-making processes. When communities believe that governance bodies act with integrity and fairness, voluntary compliance is more likely (Van Tulder et al., 2021). The fourth driver calls attention to stakeholder engagement. Inclusive participation across all levels of society, especially among those directly dependent on marine resources, is key to fostering cooperation and mutual accountability (Clark Howard, 2018). Lastly, the fifth driver, empowerment of communities, as noted by Haas et al. (2022), serves as a cornerstone for sustainable governance. When local groups are equipped with the tools, rights, and recognition to manage resources collectively, ocean governance becomes more resilient and responsive (Campbell et al., 2024; Nakamura, 2022). Together, the five drivers and the guiding values of UN SDGs provide a balanced analytical framework for assessing the strengths and gaps in RSS schemes, particularly in small island contexts like Kiribati.

5.4.4 Selection Process and Assessing Effectiveness of RSS Schemes

RSS schemes have long served as vital mechanisms through which regulatory norms are articulated, implemented, and monitored (Abbott & Snidal, 2021b). Their relevance lies in fostering coherence, legitimacy, and accountability in public governance, particularly within the fishery sectors where ocean governance and transnational coordination are imperative, and where they can help mediate the sustainable management of fishing, shipping, and resource extraction (Karavias, 2018; Seta, 2019).

The RSS schemes' landscape is marked not only by large numbers but also by institutional variety and evolving actor relationships (Schiller et al., 2023). While some frameworks are driven by single entities - whether private firms or NGOs, others emerge through hybrid collaborations, occasionally uniting actors with divergent interests (Abbott & Snidal, 2021a). However, the number of RSS and their arrangement raises two important questions by Abbott and Snidal (2021a), which will guide the evaluation and discussion on the effectiveness of RSS systems. First, "whether the varied types of RSS institutions can be effective regulators, both individually and as a regulatory system", and second, "whether RSS schemes, and the large institutional context in which they operate, can serve the

public interest or common interest rather than being captured by particular interest” (Abbott & Snidal, 2021a, p 3).

In assessing the effectiveness of RSS schemes, I have undertaken a selective and interpretive approach to the identification and evaluation of the effectiveness of relevant initiatives. I have first identified 32 RSS from academic literature, public media reports, and stakeholder-affiliated websites. The initial phase of the analysis involved a broad review of available materials to determine the relevance to Kiribati or to other PICs whose governance structures and socio-ecological challenges are closely aligned with the research focus. I have excluded schemes deemed unrelated or peripheral from further evaluation. Such an approach has allowed me to adopt a more focused examination of those initiatives that intersect meaningfully with the WCPO region and resource governance concerns.

Out of the 32 RSS schemes, I selected and evaluated 15 RSS schemes. The evaluation draws on and is informed by two key frameworks: the normative values embedded within the UN SDGS (Arora et al., 2023; Benzaken et al., 2022), as discussed in section 5.4.2, and the five governance drivers underpinning ocean policy frameworks by Haas et al. (2022) outlined in section 5.4.3. I have synthesised them into an evaluative matrix presented in Table 7. The matrix in Table 7 maps each RSS against five principles derived from these two frameworks. The principles include:

1. Enforced by laws,
2. effective and adaptable,
3. credible,
4. inclusive, and
5. empowering.

The effectiveness of each RSS schemes was measured against these principles using a five-point ordinal Likert-type scale, where a score of “1” corresponds to minimal relevance or impact, and the score of 5 corresponds to strong alignment and effectiveness. In establishing the rationale behind the scoring of each RSS schemes, my analysis remained mindful of the inherent challenges and limitations associated with secondary data (Black et al., 2023; Hillbom et al., 2023; Klöck & Nunn, 2019).

My evaluation process was informed by close engagement with selected peer-reviewed academic publications and other documentary sources, which offered both conceptual guidance and an analytical basis for the assigned scores. The evaluation process was not only an exercise in measurement but also a reflective engagement with the broader discourse surrounding regional support and ecological stewardship embedded within the data and the various information sources.

Throughout the evaluation and rating process, my analysis remained anchored in the research questions, drawing its findings from sources directly relevant to the governance challenges and sustainability concerns confronting Kiribati's tuna fisheries. The outcomes of this evaluative process are presented and summarised in Table 8, offering an overarching view and insights into the relative strengths and limitations of each RSS scheme in the specific governance landscape of Kiribati's sustainable tuna fisheries. I have also subsequently discussed both my RSS scheme inclusion process and the evaluation of the 15 RSS schemes with a select number of experts. The consultation process included a document outlining the role of RSS schemes in promoting sustainable tuna fishing in Kiribati, along with six guiding questions for feedback. Response received, including one expert¹⁴ with significant policy experience in the Pacific Island Forum (PIF), and a number of experts¹⁵ from Kiribati responded, providing feedback. Overall, the validation and robust check from this consultation process have largely supported the framing and findings of my analysis, with suggestions that were considered in refining the final analysis.

5.4.5 Analysis

The matrix presented in Table 8 draws attention to the diversity and complexity of RSS schemes in the governance of tuna fisheries in the WCPO. The average score across the 15 schemes stands at 3.1 out of a 5-point ordinal scale (which corresponds to 62 per cent or a C grade). However, individual performance ranges widely, from a low of 32 per cent to a high of 96 per cent. Notably, four of the

¹⁴ Mr. Sione Tekiteki (Former Director – Governance and Engagement | Pacific Islands Forum)

¹⁵ Mr. Riibeta Abeta (Secretary - Corporate Division | Ministry of Fisheries & Ocean Resources). The Director of Ocean Fisheries Division (OFD) and members of OFD.

schemes stood out, achieving scores above 90 per cent. These schemes performed strongly across all five evaluative principles, with strength shown in the area of community empowerment. Conversely, mid-range performers (56 – 84 per cent) demonstrate strength in legality and state coordination but tend to falter in fostering local participation, suggesting a lingering reliance on top-down or hierarchical governance.

RSS schemes at the lower end (32 – 52 per cent) lack enforceability and integration mechanisms, limiting their capacity to support sustainable fisheries. Schemes such as Corporate Social Responsibility (CSR) and the Small-Scale Fisheries (SSF) Guidelines, both scoring 32 per cent, illustrate the shortcomings of non-binding instruments in contexts where enforcement and local adaptation are crucial. Among the five evaluative principles, legal enforceability and adaptive effectiveness emerge as the most developed, each averaging 69 per cent. However, inclusiveness (the fourth principle) remains the weakest, at 59 per cent.

Across all 15 RSS schemes, a distinct pattern emerges. Those initiatives that combine legal enforceability with grounded community involvement, such as community-based management programs, blue economy financing tools, and well-governed marine protected areas, consistently rank highest. These approaches demonstrate the value of pairing institutional rigour with local legitimacy and adaptive scientific insight. In contrast, schemes that are either wholly voluntary, narrowly technical, or externally driven, such as CSR declarations, ISO certifications, or import-focused IUU (Illegal, Unreported, and Unregulated fishing) regulations, tend to occupy the lower tiers.

Table 7: Drivers, Related UN SDGs and Evaluation Principles

Drivers influence Ocean Governance (Haas et al., 2022)	Aspects of governance	Related UN SDGs	Targets	RSS evaluation questions	RSS evaluation principles
Formal Rules and Institutions Indicators	Rules and norms established through formal governance mechanisms can guide behavior and foster compliance. In ocean governance, these include regional treaties, licensing systems, and national marine policies. Their effectiveness hinges not only on their design but also on their adaptability in the face of environmental and political change	14 – Life Below Water	Target 14.2 urges the sustainable management and protection of marine ecosystems. Target 14.4 addresses the need to effectively regulate harvesting and end overfishing, illegal, unreported and unregulated (IUU) fishing. Target 14.10 It is essential to uphold international maritime law by honouring treaties and agreements that safeguard marine biodiversity and guide responsible ocean governance.	Do RSS frameworks align with and reinforce regional and international marine policies, and are they effectively implemented and enforced in Kiribati's waters?	ENFORCED TO THE LAWS: RSS schemes should demonstrate coherence with existing national laws, regional fisheries agreements (e.g., WCPFC), and international norms. This includes the presence of clear, enforceable rules that regulate fishing activity, define conservation targets, and establish monitoring and enforcement mechanisms.
Evidence and Knowledge-Based Decision-Making	Integration of scientific research, local observations, and traditional knowledge enhances the legitimacy and relevance of governance	13 - Climate change, 14 – Life Below Water, 17 - Partnership for the Goals	Target 13.3 promotes improved education, awareness-raising, and institutional capacity. Target 14.8 Advancing scientific knowledge and marine research is crucial. Particular focus is needed on understanding the effects of ocean acidification and climate change on marine systems, enabling informed and timely responses. Target 17.6 encourages partnerships that mobilize and share knowledge, expertise, technology and financial resources	Are RSS decisions informed by up-to-date scientific evidence and local ecological knowledge, and do they enable adaptive responses to environmental change?	EFFECTIVE AND ADAPTABLE: RSS schemes must be grounded in the best available science while also incorporating traditional and local knowledge. This principle emphasizes adaptive governance how rules evolve in response to ecological feedback, climate impacts, or new information.
Legitimacy of Decision-Making Institutions	Building legitimacy requires participatory processes that give voice to diverse stakeholders, including small-scale fishers, Indigenous leaders, and civil society organizations	14 – Life Below Water, 17 - Partnership for the Goals	Target 14.7 Enhancing economic benefits from the sustainable use of marine resources can foster inclusive growth. Sustainable tourism, aquaculture, and community-based fisheries offer models that both protect marine environments and support livelihoods. Target 17.H Fostering effective partnerships across public, private, and civil society sectors is critical to achieving shared development goals. Lessons from past collaborations offer valuable insight into designing more resilient and impactful partnerships.	Are RSS institutions viewed as legitimate and trustworthy by key actors in Kiribati and the broader WCPO region?	CREDIBLE: RSS schemes should be transparent, fair, and accountable. Stakeholders including government officials, fishers, and civil society, must perceive the decision-making process as just and credible, increasing voluntary compliance and reducing the need for coercion

Note. Data collected by the author and analyses on 20 April 2025, from Haas et al. (2022) and the United Nations (2024)

Sustainable Tuna Fishing in Small Island Developing States: Governance and Policies in the Kiribati Islands

Table 7: Continued

Drivers influence Ocean Governance (Haas et al., 2022)	Aspects of governance	Related UN SDGs	Targets	RSS evaluation questions	RSS evaluation principles
Stakeholder Engagement and Participation	Engaging stakeholders at all levels from international policymakers to local communities enables cooperative problem-solving and reduces conflict over marine resources	14 – Life Below Water, 17 - Partnership for the Goals	<p>Target 13.1 calls for all countries to integrate climate measures into national policies and planning processes</p> <p>Target 17.G A robust and inclusive Global Partnership for Sustainable Development should be advanced through collaborative efforts that pool knowledge, expertise, finance, and technology, especially in support of those most in need.</p>	Do RSS schemes provide inclusive platforms for stakeholder input and participation across local, national, and regional levels?	INCLUSIVE: RSS ensures that the voices of marginalized or underrepresented groups such as small-scale fishers, Indigenous communities, and women are meaningfully integrated into regulatory design and implementation.
Empowering Communities	Community empowerment is not merely a policy goal; it is a practical necessity for ensuring compliance, stewardship, and long-term sustainability.	13 - Climate change, 14 – Life Below Water, 17 - Partnership for the Goals	<p>Target 13.b Building institutional and human capacity is central to climate action. Raising public awareness and enhancing international cooperation are pivotal components of this goal.</p> <p>Target 14.9 Supporting small-scale fishers means ensuring that coastal communities retain equitable access to marine resources and are empowered to pursue sustainable practices that secure both food and income.</p> <p>Target 17.5 Investment in the least developed countries should be facilitated through supportive policies and promotion regimes that attract sustainable development finance.</p>	Do RSS schemes invest in and enable community-led resource management, and do they support long-term capacity building in Kiribati?	EMPOWERMENT: RSS effectiveness hinges on the extent to which local communities are empowered to co-manage resources, enforce standards, and participate in benefit-sharing. This includes capacity building, education, and institutional support.

Note. Data collected by the author and analyses on 20 April 2025, from Haas et al. (2022) and the United Nations (2024)

Sustainable Tuna Fishing in Small Island Developing States: Governance and Policies in the Kiribati Islands

Table 8: RSS Evaluation and Rating

RSS Scheme	RSS Description	69% Principle 1 (1-5)	68% Principle 2 (1-5)	63% Principle 3 (1-5)	59% Principle 4 (1-5)	60% Principle 5 (1-5)	Total (out of/25)	Total (%)
1	VDS The Vessel Day Scheme (VDS) is to regulate fishing effort within PICs EEZ. Implemented by an intergovernmental coalition under the Party of Nauru Agreement (Azmi & Hanich, 2021)	5	5	5	4	4	23/25	92%
2	CBFM Community-Based Fisheries Management (CBFM). Local communities taking an active and leading roles alongside their government with key organisations to establish and ensure sustainable practice within their fisheries and coastal areas. (Campbell et al., 2024). (Commonwealth Secretariat, 2020) The project involve three countries (Kiribati, Solomon Island and Vanuatu).	4	5	5	5	5	24/25	96%
3	NT Niue Treaty (NT) on Cooperation in Fisheries Surveillance and Law Enforcement signed by members of the FFA, which facilitates aerial surveillance by Australia, New Zealand, and France across much of the Pacific (Goodman, 2013 ; Fujii et al., 2021)	4	4	4	4	5	15/25	84%
4	PIPA Kiribati's Phoenix Islands Protected Area (PIPA) is a State, International NGO and New England Aquarium collaboration. The first Marine Protected Areas (MPAs) & No-Take Zones of its kind. (Rotjan et al., 2014 ; Maestro et al., 2019)	5	5	4	4	5	25/25	92%
5	MSC Marine Stewardship Council (MSC) provides fisheries certification which encourages sustainable practices. (Ponte, 2012)	3	4	3	3	3	16/25	64%
6	GSSI Multi-Stakeholder Sustainability Initiatives: Global Sustainable Seafood Initiative (GSSI). Bycatch, a major obstacle in the sustainable tuna industry (Grimes, 2025)	5	2	2	3	2	14/25	56%
7	CSR Corporate social responsibility (CSR) initiatives focus on traceability, labor rights, and reducing bycatch by large seafood suppliers. However, positioned between end-buyers and fisheries, large seafood suppliers are seen as crucial to advancing sustainability in the industry. Yet unless they own consumer-facing brands, CRS initiatives of these suppliers often remain hidden from public view and thus face limited scrutiny from NGOs and the media	2	3	1	1	1	8/25	32%
8	BEI Climate Change Adaptation Funds & Blue Economy Initiatives (BEI): NGO (GGGI and SPC)-backed financial mechanisms help Kiribati use tuna revenues for climate resilience (Piggott-McKellar et al., 2020); (GGGI, 2024, October 20); (McNamara & Westoby, 2014).	4	5	5	5	5	24/25	96%
9	CCRF Food and Agriculture Organization (FAO) - Code of Conduct for Responsible Fisheries (CCRF) adopted in 1995 is a voluntary international instrument aimed at promoting sustainable management, conservation and development of marine resource. Serves as a guide for governments, and all stakeholders engaged in fisheries and aquaculture activities (Hosch et al., 2011).	1	3	3	3	3	13/25	52%
10	EU (EC) No 1005/2008 European Union (EU) Combating IUU through regulatory mechanisms such as catch certification and import restrictions preventing IUU products reaching the EU markets (Miller et al., 2014)	3	3	2	2	2	12/25	48%
11	UN PSMA UN Port State Measures Agreement (PSMA). The PSMA targets IUU fishing by regulating port access for fishing vessels, supporting monitoring and enforcement (Hosch et al., 2025)	5	4	4	4	4	21/25	84%
12	VII Vessel Identification Information (VII) is part of the Public-Private Fisheries Agreements (PPFA): Bilateral and multilateral agreements between states and fishing firms (e.g., access agreements between Kiribati and DWFNs). The VII initiatives provides informtion on ship names, vessel owners, flags, source etc.to help track real-time fishing activities and support fishing data in EEZ boundaries (Dubniczki, 2024).	3	2	3	2	2	12/25	48%

Source: Author's own work based on assessment and analysis

Sustainable Tuna Fishing in Small Island Developing States: Governance and Policies in the Kiribati Islands

Table 8: Continue

	RSS Scheme	RSS Description	Principle 1 (1-5)	Principle 2 (1-5)	Principle 3 (1-5)	Principle 4 (1-5)	Principle 5 (1-5)	Total (out of/25)	Total (%)
13	SSF	FAO Voluntary Guidelines for Small-Scale Fisheries (SSF): Sets global best practices but is non-binding. The SSF provides recognition and protection of small-scale fisheries particularly for developing and vulnerable coastal communities such as Kiribati. However, gaps in global participation in international treaties relevant to SSF remain significant especially amongst SIDS (Nakamura, 2022).	3	1	2	1	1	8/25	32%
14	ISO/TC 234	ISO TC/234 is the Standardisation in the field of fisheries and aquaculture. With 20 participating members and 30 observing states, the ISO/TC 234 encompasses a broad range of areas, from terminology and equipment specifications to site characterisation, environmental monitoring, and waste management. It also includes protocols for data reporting and traceability, all aimed at ensuring responsible practices and sustainable operations. However, it excludes food products and traceability, Personal Protection Equipment and environmental monitoring (ISO, nd)	2	3	2	2	2	11/25	44%
15	ILO (Convention 105)	International Labour Organisation (ILO), which includes Convention 109- Forced Labour and Convention 188 - Working in fishing. Recent research in Ocean Sustainability reveals that the MSC is failing to detect forced labour violations in its certified fisheries, particularly in high-seas tuna operations, due to reliance on self-reported data and weak verification standards that allow untraceable vessels and exploitative practices to persist under its ecolabel (Tickler et al. 2018; Baxter, 2024; Nakamura, 2022; Nakamura, 2024)	3	2	2	1	1	9/25	36%

	Principles	RSS Evaluation Indicators	Rating (Minimal Moderate Effective)				
			1	2	3	4	5
1	ENFORCED BY LAWS	ENFORCED BY THE LAWS: RSS schemes should demonstrate coherence with existing national laws, regional fisheries agreements (e.g., WCPFC), and international norms. This includes the presence of clear, enforceable rules that regulate fishing activity, define conservation targets, and establish monitoring and enforcement mechanisms.	1	2	3	4	5
2	EFFECTIVE AND ADAPTABLE	EFFECTIVE AND ADAPTABLE: RSS schemes must be grounded in the best available science while also incorporating traditional and local knowledge. This principle emphasizes adaptive governance how rules evolve in response to ecological feedback, climate impacts, or new information.	1	2	3	4	5
3	CREDIBLE	CREDIBLE: RSS schemes should be transparent, fair, and accountable. Stakeholders including government officials, fishers, and civil society, must perceive the decision-making process as just and credible, increasing voluntary compliance and reducing the need for coercion	1	2	3	4	5
4	INCLUSIVE	INCLUSIVE: RSS ensures that the voices of marginalized or underrepresented groups such as small-scale fishers, Indigenous communities, and women are meaningfully integrated into regulatory design and implementation.	1	2	3	4	5
5	ENPOWERING	ENPOWERMENT: RSS effectiveness hinges on the extent to which local communities are empowered to co-manage resources, enforce standards, and participate in benefit-sharing. This includes capacity building, education, and institutional support.	1	2	3	4	5

5.5 Summary

Chapter 5 has offered a compelling and poignant case study of vulnerability, resilience, and global entanglement. Defined by scarce resources, limited economic opportunities, and growing dependence on international aid, labour mobility schemes and tuna fishing revenue. Despite these hardships, Kiribati exhibits a deep-rooted cultural strength and adaptability to challenges on global climate change vulnerability, limited economic diversification, and the search for a sustainable future.

As a critical case study for sustainable tuna fishing, the Kiribati case demands not only global solidarity but also scholarly attention. The chapter has set out the conceptual and analytical framework through which this study evaluates regulatory standard-setting schemes in Kiribati's sustainable tuna fisheries governance. Against the backdrop of global concerns over ocean degradation and fishing decline, the chapter revisited the idea of governance not merely as a function of a state, but a broader set of institutional arrangements shaped by diverse actors and knowledge systems.

Next, Chapter 6 turns to the findings drawn from this evaluative exercise. It presents a comparative assessment of the selective RSS schemes, examining their relative strengths and limitations within Kiribati's governance landscape. It also reflects on how these findings speak to the broader patterns in ocean governance and sets the stage for the discussion in the concluding chapter on theoretical and practical implications, while addressing the research questions and directions for future inquiry.

Chapter 6: Findings

6.1 Introduction

The preceding chapter undertook a critical examination of Kiribati's engagement with sustainable tuna fisheries in the WCPO, positioning the nation as a critical case study from a transnational governance point of view. The analysis assessed Kiribati within its broader socio-economic and environmental context, as a SIDS marked by multiple environmental vulnerabilities, developmental challenges, the existential threats posed by climate change and its reliance on marine resources for sustenance, revenue, and national identity. Such features could not be separated from the governance frameworks and policies applied to managing its marine resources. Within this setting, the relevance of RSS schemes emerges as a particularly important instrument in shaping how Kiribati navigates both global sustainability mandates and the broader tension and demands of marine resources within its EEZ.

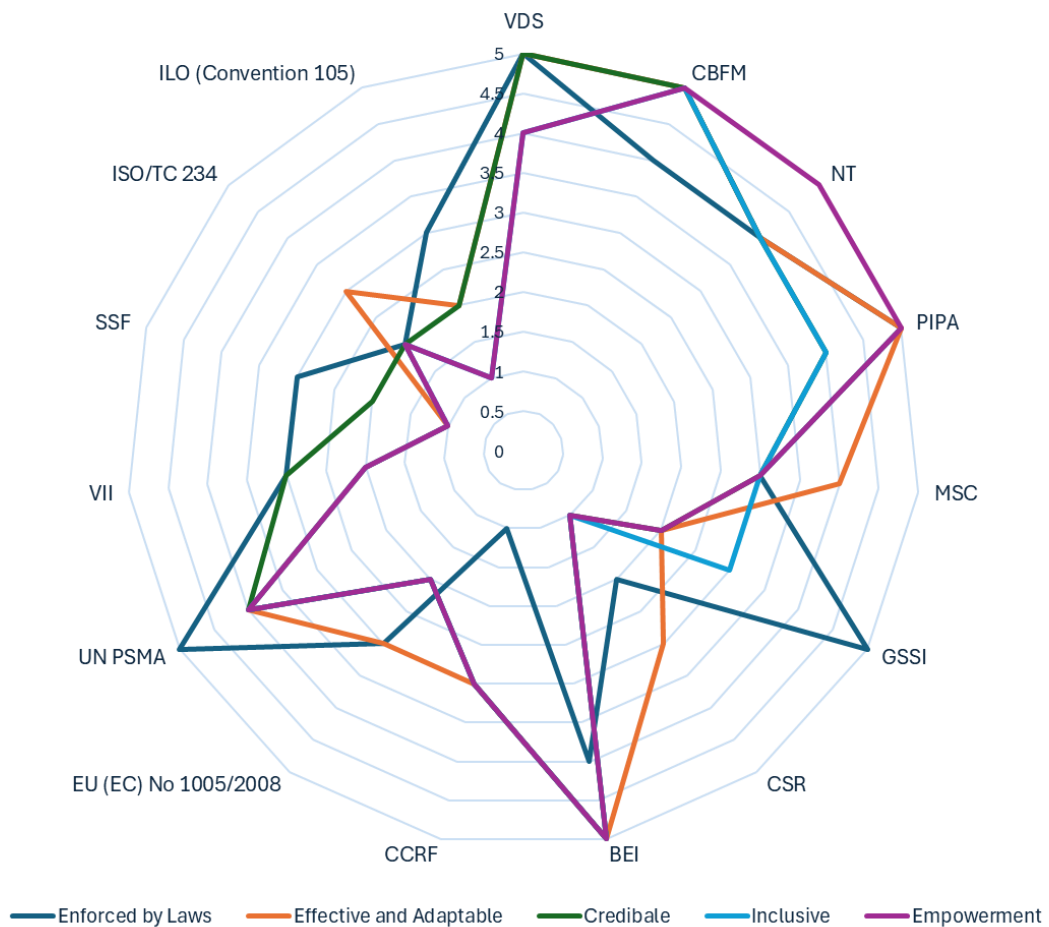
The current chapter discusses the results and findings of the comparative evaluation of the 15 RSS schemes, offering an interpretation of their respective contributions to the governance of sustainable tuna fisheries in Kiribati. The analysis measures both the effectiveness of RSS schemes in conceptual terms and also considers how these RSS schemes align with the five governance principles outlined by Haas et al (2022), which include legality, adaptability, credibility, inclusiveness and empowerment. I have organised my findings across four performance tier categories, which are: top-performing RSS schemes, moderate-performing RSS schemes, low-performing RSS schemes and critical/marginal performing RSS schemes.

To provide a clearer insight into the performance of the RSS schemes, I have established a cut-off value to distinguish the varying levels of performance in the four tiers based on the percentage scores of each of the 15 RSS schemes. The *top tier* (85–100 per cent) comprises of RSS schemes which reflect strong alignment with key principles; the *moderate tier* (60–84 per cent) indicates sound performance with some limitations. The *low tier* (40–59 per cent) suggests partial adherence, while the *critical or marginal tier* (0–39 per cent) highlights deeper structural or implementation challenges. The classification and breakdown of the performance tiers corresponding to the 15 RSS schemes against the

five governance principles outlined by Haas et al. (2022) offers a reflective lens through which to interpret the varying strengths of each scheme and provides a structured account of how regulatory mechanisms have either supported or not the realities of Kiribati’s governance and policies on sustainable tuna fisheries.

Figure 11 offers a visual representation of the performance of the 15 RSS schemes when assessed against the five governance principles. In my interpretation, schemes that align more closely with the five principles extend outward toward the edges of the radar chart, suggesting stronger governance characteristics. Conversely, those demonstrating weaker alignment appear nearer the centre, indicating more limited adherence. This illustration serves to highlight the varying degrees to which each scheme engages with each of the five governance principles.

Figure 11: RSS Schemes - Performance Against Governance Principles



Source: Author’s own work based on assessment and analysis. Note: Depicted on a 5-point ordinal scale.

6.2 Top-Performing RSS Schemes

Among the highest-scoring initiatives, Community-Based Fisheries Management (CBFM) and the Blue Economy Initiatives (BEI) both achieved 96 per cent alignment across the five principles in the evaluation framework. CBFM distinguished itself through its participatory governance code, rooted in customary and local knowledge systems and empowers community actors to assume co-management responsibilities. The CBFM scheme resonates deeply with the principles of inclusiveness and adaptability, echoing long-standing traditions of communal stewardship in Pacific Island societies.

Similarly, the BEI scheme performed well across all criteria, particularly in its capacity to channel climate adaptation and community resilience by reinvesting tuna-derived revenues into adaptation projects and social infrastructure; therefore, it affirmed the potential for financial innovation to serve community agency rather than circumvent it. Together, both the CBFM and BEI schemes illustrated the enduring value of governance approaches grounded in local realities and accommodating to both ecological and social imperatives.

Also positioned within the top-performing category were the Phoenix Islands Protected Area (PIPA) and the Vessel Day Scheme (VDS), each attaining a 92 per cent effectiveness rating. PIPA stands out for its robust multi-actor cooperation, integrating scientific research, legal protections, and environmental conservation between Kiribati and FFA members, NGOs, and international research bodies. The designation of enforceable no-take zones reflected a serious commitment to ecological integrity and governance legitimacy. Similarly, the VDS exemplifies the value of coordinated intergovernmental mechanisms (i.e., PNA), offering a model of regional coherence and legal enforceability that is rarely matched in Pacific resource governance. Both initiatives offer replicable lessons for other small island and coastal states seeking to consolidate marine protection within the bounds of their sovereign rights.

6.3 Moderately Performing RSS Schemes

Four schemes occupy the middle performance tier, among them, the UN Port State Measures Agreement (PSMA) and the Niue Treaty (NT) register effective scores of 84 per cent. The PSMA's strength lies in its port-based enforcement mechanisms against IUU fishing activities. However, its practical focus limited its inclusivity, as community-level stakeholders were largely absent from its design and implementation. The Niue Treaty, while encouraging greater air and sea surveillance and legal coordination among FFA members (Fujii et al., 2021), likewise, it reflects a predominantly top-down architecture leading to the lack of cooperation among countries, particularly with insufficient RSS schemes associated with the NT treaty, thus leading to the lack of measures against IUU fishing vessels. Its emphasis on state-based collaboration, though valuable, offers minimal participatory space for non-state or community actors.

Further down this performance category, the Marine Stewardship Council (MSC) and the Global Sustainable Seafood Initiative (GSSI) attained effectiveness scores of 64 per cent and 56 per cent, respectively. Both initiatives embraced science-based protocols and traceability yet are weakened by limited engagement with small-scale fishers and coastal communities. While the MSC has certified fisheries in developed countries and among PNA members in the WCPO skipjack tuna fishery, its global recognition has also brought critical attention. As Ponte (2012) observes, a key concern lies in the MSC's limited efforts to meaningfully consult with fishers, suggesting a gap between institutional processes and those most affected by them (Ponte, 2012). GSSI, while addressing concerns such as bycatch and transparency, similarly failed to integrate the lived experiences and knowledge systems of those most affected by marine sustainability discourses. The gap between global standards and local realities remains a critical point of tension, especially the disconnect between global regulatory aspirations and the uneven capacities of those expected to implement them.

6.4 Low-Performing RSS Schemes

Five of the 15 RSS schemes examined fall into the low-performing category. At the upper end, the FAO's Code of Conduct for Responsible Fisheries (CCRF) achieved a 52 per cent effectiveness. While providing valuable normative guidance, the voluntary nature of the CCRF hinders its ability to foster enforceable or locally embedded governance structures. Its limited uptake reflects a persistent gap between international policy frameworks and the adaptive capacities of nations like Kiribati. Without legal enforcement or mechanisms for community engagement, its influence remains advisory rather than transformative.

The EU IUU Regulation (No. 1005/2008) and the Vessel Identification Information (VII) both follow closely, with 48 per cent ratings. While the EU IUU regulation improves traceability and curbs market access for illegal operators, it remains externally oriented, offering few opportunities for Pacific Island nations to influence or co-own its enforcement mechanisms. Similarly, VII initiatives, although commendable for their emphasis on data transparency, are weak in adaptability and inclusiveness. The lack of governance integration rendered such technical tools marginal in terms of systemic impact. Equally, the International Organization for Standardization (ISO) fisheries initiative, with a score of 44 per cent, lacks attention to empowerment, food security, or adaptive governance. Its technical emphasis overlooks many of the ecological and social priorities that define fisheries in the Pacific region.

6.5 Critical/Marginal RSS Schemes

Efforts aimed at addressing forced labour and human rights in fisheries, such as those administered by the International Labour Organization (ILO), performed particularly poorly, with a score of just 36 per cent. The absence of binding commitments from powerful actors such as the United States and the European Union, coupled with weak enforcement and reliance on self-reporting (Nakamura, 2024), decreases their effectiveness. For Kiribati and similar nations, the exclusion from such frameworks further deepens their minority status in global labour regimes (Nakamura, 2022).

At 32 per cent, Corporate Social Responsibility (CSR) initiatives in the seafood industry occupy the lowest stage of the performance spectrum. Driven largely by NGO pressure and consumer awareness in developed markets (Packer et al., 2019), despite efforts to encourage certain firms in the supply chain to adopt sustainable CSR initiatives, such commitments continue to fall short. For example, Fong Chun Formosa (FCF)¹⁶ publicly announced commitment to new sustainable and human rights initiatives with claims that its entire portfolio is fully (100 per cent) traceable and verified, however, the company continues to restrict access for independent organisation to verify its operations and ownership of vessels in its supply chain (Guardian, 2024, October 25). Furthermore, repeated reports of labour abuse resulting in physical and sexual violation and withholding of fisher's identity documents (Greenpeace, 2024) are linked to vessels associated with FCF.

Moreover, CSR commitments remain largely voluntary and unmonitored, particularly among vertically integrated firms¹⁷ without public retail profiles, which has left them beyond meaningful scrutiny (Packer et al., 2019). The effectiveness of CSR initiatives depended more on corporate goodwill than systemic accountability, rendering them poorly suited to the governance needs of vulnerable nations such as Kiribati.

Sharing the lowest performing RSS scheme at 32 per cent, the FAO's Voluntary Guidelines for Small-Scale Fisheries (SSF) reflect similar limitations. Despite its design to highlight the rights, knowledge and contribution of small-scale fishers, the SSF Guidelines remain non-binding and have been inconsistently adopted. Their potential as a reference point for sustainability, rights, and equity is evident, particularly in nations that lack formal treaty commitments. However, the absence of enforceability, community integration, or adaptability mechanisms severely limits their influence. In Kiribati, where small-scale fisheries form the backbone of food security and socio-economic resilience and a lifeline for many Kiribati people, the lack of practical application and state support made these guidelines more aspirational than operational.

¹⁶ Fong Chun Formosa ranks among the largest tuna suppliers in the Western Pacific, operating a fleet of more than 500 vessels and generating annual revenues in the hundreds of millions of US dollars.

¹⁷ Businesses that manage and oversee various stages of their supply chain, from sourcing raw materials to distributing the finished product.

6.6 Principles: Strengths and Gaps towards Governance and Policy Change

The five governance principles underpinning my research analysis reveal an even distribution of emphasis across the fifteen regulatory standard-setting initiatives, with only a modest 10 per cent difference separating the highest and lowest scoring principles. All five principles, enforced by law, effective and adaptable, credible, inclusive, and empowering, clustered within a 60 per cent to 70 per cent range, suggesting a general trend of moderate performance. Rather than dramatic variations, the results point to a steady engagement with key governance values across institutional settings.

Figure 12 offers a more nuanced analysis of these principles, capturing both areas of institutional strength and persistent gaps. Legal enforceability emerges as the most substantiated principle, scoring 69 per cent, largely due to the anchoring role of formal legal agreements. The principle of being effective and adaptable followed closely, scoring 68 per cent, especially where governance drew from local knowledge systems and showed responsiveness to environmental conditions.

In contrast, principles such as credibility (63 per cent), inclusion (59 per cent), and empowerment (60 per cent) revealed more uneven representation. Credibility is higher where institutional transparency and community engagement are evident, while inclusion struggles, particularly in efforts to genuinely involve historically marginalised groups. Empowerment is strong when local capacity is supported, though it often remains partial. When combined, the findings reflect a persistent mismatch between formal institutional authority and the more participatory dimensions of governance, where inclusion and empowerment still tend to operate on the sidelines rather than at the centre.

Figure 12: Principles: Rating and Analysis

Figure 12: Principles: Rating & Analysis

Governance Principles	Average Score	Percentage (%)	Statement of Analysis
<p>Enforced by Laws</p>	3.46/5	69%	<p>Demonstrates moderate institutional and legal robustness. Legal enforceability showed the strongest expression among intergovernmental agreements such as the VDS, UN PSMA, and PIPA each grounded in binding legal commitments. Voluntary initiatives, particularly those aligned with corporate social responsibility (CSR) tended to fall short, often operating at a remove from national legislation or formal treaty frameworks. This reflects a clear division between treaty-based instruments and non-binding regulatory approaches.</p>
<p>Effective & Adaptable</p>	3.40/5	68%	<p>Indicates capacity for policy flexibility and responsiveness. Principle of effective and adaptable are grounded in schemes that are rooted in both local knowledge and environmental monitoring. In contrast, RSS initiatives ranked low in effectiveness, reviled shortcomings in institutional adaptability, limiting their ability to respond to shifting environmental challenges, a reality that remains especially noticeable within the fragile contexts of small island states</p>
<p>Credible</p>	3.13/5	63%	<p>Reflects institutional trust but uneven across schemes. The perception of credibility was notably higher in governance arrangements rooted in community participation and treaty-based cooperation. Transparency and local stakeholder inclusion were seen as no more than just procedural gestures; they were integrally tied to the operational and functioning of the system. Similarly, mechanisms associated with RSS schemes hampered by governance weaknesses, particularly by non-transparent reporting practices and limited oversight, diminished their effectiveness and credibility in the eyes of many observers.</p>
<p>Inclusive</p>	2.93/5	59%	<p>Lowest performing principle; suggests weak stakeholder engagement Inclusion remained a fundamental weakness across many schemes. Notably, two schemes (CBFM and BEI) made intentional efforts to incorporate the perspectives of those historically sidelined, such as small-scale fishers and Indigenous communities. This shortcoming and pattern of exclusion speak not merely to oversight, but to a deeper structural tendency within top-down or hierarchy governance models, where procedural inclusion is too often treated as secondary to technical compliance or institutional convenience.</p>
<p>Empowering</p>	3.00/5	60%	<p>Varied across schemes; highest in top-performing RSS Empowerment proved strongest where governance arrangements embraced co-management and actively invested in local capacity, as seen in initiatives like CBFM and BEI. Many certification and regulatory frameworks, like those found in CRS, MCS and ISO schemes, fell short in providing communities with the training and practical tools to exercise agency. This disconnectivity of empowerment underscores a broader tension within global governance, where the language of participation and fairness is at odds with the reality that small island nations are often given limited or symbolic opportunities in practice.</p>

Source: Author's own work based on assessment and analysis

6.7 Summary

Chapter 6 has presented the findings of a comparative evaluation of 15 RSS schemes relevant to Kiribati's sustainable tuna fishing industry. Grounded in the nation's complex social, environmental, and geopolitical context, the findings identify uneven performances, with stronger alignment found in locally grounded initiatives, and notable gaps in schemes that remain distant from community realities or lack enforceable commitments. The findings also invite further analysis and reflection, particularly on how governance arrangements both shape and are shaped by the vulnerabilities and aspirations of small island nations such as Kiribati.

The findings emerged from the evaluation, scores and results presented in Table 8, and Figures 11 and 12. In the discussion in Chapter 7, I take the task of engaging more closely with the implications of the findings from both theoretical and practical perspectives while revisiting the research questions. It also offers a discussion of the study's limitations and outlines future directions for research, policy and governance reform in sustainable tuna fishing in the Pacific Ocean and beyond.

Chapter 7: Discussion and Conclusion

7.1 Theoretical implications

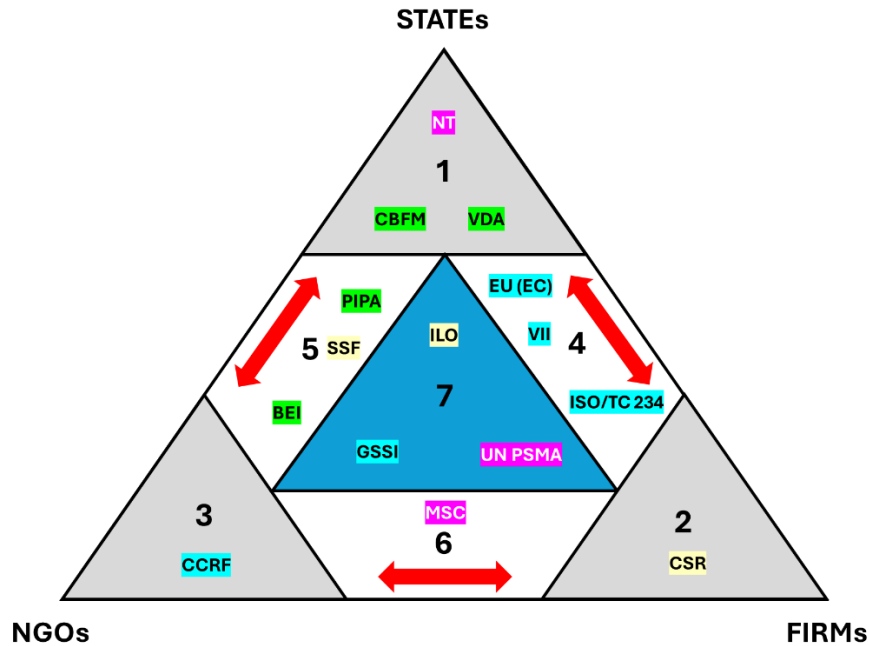
My findings support the usefulness of Abbott and Snidal's (2021a) governance triangle as an effective way of conceptualising the interplay between states, firms and NGOs, which is of particular value to the IB literature. Figure 13 illustrates how the tuna industry in Kiribati operates with a transnational governance context where state and intergovernmental-led regulatory mechanisms, market-based certification schemes, and civil society advocacy intersect to shape governance practices across national boundaries. However, the findings also highlight some blind spots, particularly related to *Zone 2* and *Zone 4*, where the performance levels of RSS initiatives remain low to minimal in terms of their effectiveness. This suggests that the collaboration between market actors and intergovernmental organizations is not only shaped by an imbalance of power, political and particular interest, which contribute to the blue economy as “a boundary object for hegemony across scales” (Schutter et al., 2021, p. 1) but also by the structural marginalisation of small island states in agenda-setting and enforcement of sustainability objectives (Croft et al., 2024).

In contrast, we can observe the hybrid collaboration arrangements between States and NGOs as depicted in *Zone 1* and *Zone 5*, where the design, implementation and coordination of RSS schemes demonstrate high standards and strong performance across the five governance drivers outlined by Haas and colleagues (2022). While all three actor groups play important roles in shaping transnational governance, State-NGOs alliances offer more holistic and grounded pathways to sustainable and just outcomes, especially in the context of sustainable tuna fisheries, where cultural, ecological, and sovereignty dimensions are deeply intertwined.

My study contributes to the transnational governance literature by illustrating how regulatory initiatives operate within a supranational context. Hartmann et al. (2022) define such a context as institutions transcending national jurisdictions and relying on diffuse, networked forms of authority. In line with UN SDG framework, as a type of supranational institutional framework, I show that legitimacy in these arrangements is not anchored in formal sovereignty or legal coercion, but rather in the ongoing

production and diffusion of shared norms, expectations, and standards across multiple actor groups and actors where social equity needs to be particularly considered (Cisneros-Montemayor et al., 2022).

Figure 13: Governance Triangle and RSS Initiatives on Sustainable Tuna Fishing



Note: Adapted from “The governance triangle: Regulatory standards institutions and the shadow of the state” by K. W Abbott and D. Snidal, 2021a, In *The spectrum of international institutions*, p. 63. Routledge.

Furthermore, Suddaby et al. (2017) have posited that the concept of ‘*legitimacy-as-perception*’ within management literatures is centred on how observers ranging from states and international organizations to NGOs, industry actors and local communities collectively evaluate whether an institution’s actions are desirable, proper or appropriate within a socially constructed system of norms, values and beliefs. Such conceptualisation foregrounds legitimacy as a form of ‘*social perception*’, illuminating how shared meaning-making processes are central to the functioning and fragility of transnational governance mechanisms. Within such framing, Suddaby et al. (2017) identified three distinct roles that actors play in the construction of legitimacy: As owners when legitimacy is treated as a *property*, as change agents when viewed as a *process*, and as evaluated objects when legitimacy is conceived as a *perception* by a judging audience. In a transnational governance setting, it is the latter

role (the ‘evaluator’) that becomes particularly salient, as diverse actors continuously engage in legitimacy judgements that both sustain and challenge institutional authority across borders.

The findings also align with Petersson's (2023) argument that transnational partnerships tend to favour inside strategies, especially when addressing complex issues such as IUU fishing, encouraging further investigation in both partnerships and policymaker perspectives to better understand advocacy outcomes in global environmental governance. Such an argument aligns with the uneven participation of actors in RSS schemes, most notably the constrained voice of PICs and small-scale fishers (Haas et al., 2023). Abbott and Snidal (2021a) caution, such disparities raise fundamental questions about whose interests are served and whose voices are sidelined in the making of global rules, which supports the perspective of the blue economy as a boundary object subject to hegemonic pressures (Schutter et al. 2021). Hegemonic dynamics add tension within institutional theory (Greenwood et al., 2011), and the role of institutions in IB (Aguilera & Grøgaard, 2019). The presumption is that institutions evolve through shared norms and consensual logics often obscures how power is embedded in those very norms and how participants respond and adapt to institutional complexities (Roger & Dauvergne, 2016).

Considering Haas et al. (2022) and the five drivers for effective ocean governance, the overall evaluation and findings indicate that the five drivers offer a solid foundation for evaluating the effectiveness of RSS schemes, especially in relation to inclusion, legitimacy and empowerment. However, they do not fully capture the shortfall that stems from the persistent asymmetric power relations that marginalise PICs. The governance gap is deeply embedded in the wider literature and system of inequality (Chan, 2024), a condition that, while long acknowledged in critical development and postcolonial literature, has to some extent only begun to be unpacked within the blue economy literature (Croft et al., 2024). The gap is not merely technical or administrative; it speaks to a more enduring neglect of historical asymmetries between North and South, centre and periphery, land and sea that continues to shape whose voices are heard and whose interests are served (Abbott & Snidal, 2021a). Chan's (2024) analysis of maritime power discourses offers a compelling reminder that governance is always already implicated in large geopolitical imaginaries. In a related but distinct move, Croft et al. (2024) gestured towards a corrective: an equity model that seeks not only to include but to foreground

those actors traditionally marginalised by dominant governance, not as an objective or impartial system, but as a deeply situated practice, one whose legitimacy rest upon its capacity to confront, rather than reproduce, the very inequalities it purports to manage.

7.1.1 A Sixth Driver/Principle

To address the above-discussed gap, I propose the addition of a sixth driver to the framework proposed by Haas et al. (2022), one grounded in “Equity and Justice” that explicitly bring these gaps to the foreground of transnational ocean governance discourse. Croft and colleagues (2024), for example, called for a more comprehensive operationalisation of blue economy equity across ocean governance, science, and development. Such an invitation is precisely because existing governance frameworks tend to prioritise efficiency, growth, and institutional coherence, while overlooking the socio-political dimensions of exclusion and marginalisation. Their argument is driven by a recognition that equity is not merely an ethical concern, but a structural necessity, one that must be integrated into the design, implementation, and evaluations of ocean governance systems. It is here that the analytical (van Tulder & van Mil, 2023) and policymaking toolkits (Rašković, 2022) associated with wicked problems can be leveraged to address wickedness and support more effective transnational governance (Buckley, 2022).

Furthermore, Croft and colleagues (2024) have identified a theoretical gap in current governance models, which often treat equity as an afterthought or a secondary outcome, rather than as a foundational driver that shapes the legitimacy and effectiveness of transnational governance itself. Thus, by proposing a sixth driver grounded in equity and justice, I want to extend the Haas et al. (2022) framework in a way that acknowledges the contested terrain of ocean governance, and the need for governance mechanisms that not only accommodate, but actively readdress historical and ongoing injustices particularly those experienced by small island states, indigenous and underrepresented communities (Muzio, 2021) vis-à-vis other interests and actors in the Global South. Such an operationalisation needs to be centred around the recognition and empowerment of these communities to ensure not only a more equitable distribution of benefits, but also a genuinely inclusive and participatory decision-making process (Lyons et al., 2023). In this light, *equity and justice* become more

than a normative goal; it becomes a structural imperative for building governance regimes that are just and enduring. The inclusion of equity and justice also addresses the moral imperatives in addressing wicked problems (Wexler, 2009) – particularly among policymakers as key decision makers (Rašković, 2022).

7.2 Answering My Research Questions

7.2.1 Main Research Question

My study finds that Kiribati’s sustainable tuna fishing industry faces three interrelated governance issues, namely: (1) tensions between national sovereignty and external regulatory pressure, (2) the uneven participation of local communities in decision-making, and (3) the fragmented nature of international governance frameworks. Together, such issues reflect broader trends common to SIDS, aligning with the supranational dynamics identified by Hartmann et al. (2022) and the institutional complexities and scalar politics explored by Roger and Dauvergne (2016). Kiribati, like many SIDS, are structurally disadvantaged in global fisheries governance due to its limited enforcements capability, high dependency on international aids and license revenue, and exposure to climate-induced vulnerabilities, conditions that reflect the broader tensions between formal sovereignty and practical constraints experience by so-called “*Large Ocean States*” in global ocean governance (Chan, 2018).

The analysis of 15 RSS schemes revealed that while some initiatives (i.e., Community-Based Fisheries Management and Vessel Day Scheme) embody principles of inclusiveness and adaptability, many other, particularly market-based or firm-led, schemes struggle to incorporate Pacific realities into their frameworks. This reflects the tension captured in Hartmann et al.’s (2022) notion of *institutional triality*, where misalignments often emerge between transnational, national, and corporate levels in the design and implementation of governance schemes.

It also reflects a broader governance gap where formal internal standards do not sufficiently align with Kiribati’s local context, ecological needs, or customary knowledge systems (Hartmann et al., 2022). Such misalignment underscores the *contextuality* of supranational institutions, which, as

Hartmann et al. (2022) argue, must adapt to heterogeneous local realities to maintain legitimacy and effectiveness. Furthermore, legal enforceability remains uneven, and institutional empowerment often remains superficial or symbolic. Grydehø and Kelman (2020) described this as *conspicuous sustainability*, where external actors project an image of sustainable development and empowerment in SIDS through ostentatious aid and governance initiatives that, in practice, reinforce dependency rather than genuine autonomy.

Overall, the governance of Kiribati's tuna sector is constrained by asymmetrical power relations, policy incoherence, and a lack of genuinely participatory and enforceable mechanisms that uphold both ecological integrity and community well-being. Such dynamics reflect broader geopolitical tensions, as highlighted by din (2023), where SIDS often find their priorities sidelined by emerging powers (i.e., India and China) seeking leadership in global governance without fully addressing the structural vulnerabilities of their small counterparts. At the same time, small states like Kiribati must navigate such imbalances by leveraging derivative, intrinsic, and collective forms of power (Long, 2017), yet the institutional pathway for doing so within current tuna governance regimes remain fragmented and underdeveloped (Schutter et al., 2021).

7.2.2 Supporting Research Questions (2a)

Sustainable tuna fishing in Kiribati can be effectively managed as a transnational governance nexus under the UN blue economy framework only when global, regional, and local actors coalesce around shared values of equity, ecological stewardship, and participatory governance. As Das et al. (2024) demonstrate in the context of Bangladesh, blue economy governance must be inclusive, decentralised, and responsive to diverse stakeholder perspectives (like international agencies and national governments, civil society, researchers, and marginalised coastal communities) to avoid narrow sectoral approaches and achieve 'blue equity' in practice.

The UN's blue economy framework provided an aspirational platform for integrating ocean-based development with sustainability goals (Louey, 2022). However, my research shows that operationalising the blue economy in Kiribati requires more than rhetoric; it must involve redistributive

commitments (Spalding & de Ycaza, 2020), adaptive legal systems (Vogt, 2019), and regional solidarity (Haas et al., 2022). Schemes such as the Blue Economy Initiatives (BEI) and the Phenix Island Protected Area (PIPA) demonstrate the potential of such governance nexuses by linking international finance, scientific research, and customary stewardships (Spoz & Zioto, 2025) in ways that reflect both ecological priorities and community needs. However, these examples are still the exception rather than the norm and expectations.

Many RSS schemes, particularly those driven by firms (i.e., Fong Chun Formosa) or northern-based NGOs (Kirr, 2021), continue to operate in silos, failing to share authority or accountability with local stakeholders. The fragmented approach underscores a broader policy failure in addressing the “wicked” nature of sustainability challenges in Kiribati’s tuna sector. As Rašković (2022) and Head (2022) posit, wicked problems are marred by complexity, competing values, and deep uncertainty require inclusive, reflective, and polycentric policy responses. Siloed governance structures not only impede meaningful stakeholder participation but also undermine the institutional learning and shared responsibilities needed to navigate such complexity. Thus, for the blue economy idea to function and flourish as a transnational nexus, global institutions must prioritise justice-oriented governance reforms, support legally binding corporations, and foreground indigenous knowledge in marine resource governance.

7.2.3 Supporting Research Questions (2b)

Kiribati’s tuna industry faces a range of IB policy challenges. The most noticeable among them is the lack of regulatory coherence across various certification schemes such as MSC, GSSI and ISO, which creates duplicative reporting obligations and fragmented accountability structures for small states. Such fragmented regimes tend to privilege technical compliance and corporate interest over local concerns, reinforcing a form of governance that often sidelines indigenous knowledge and socio-cultural priorities (Suliman et al., 2019). The dynamic limits the space for Kiribati and other SIDS to influence governance outcomes in ways that reflect their culture and socio-economic realities. The corresponding fragmentation is further compounded by the voluntary and non-binding nature of many CSR

commitments and international guidelines, reflecting the *consensuality* nature that characterised supranational institutions (Hartmann et al., 2022). Such arrangements rely on shared norms and mutual agreement rather than formal legal authority, which makes enforcement challenging, particularly when dealing with vertically integrated seafood firms that operate across jurisdictions with weak regulatory oversight.

Another persistent policy issue in IB is found in many supply chain governance schemes, which fail to incorporate meaningful labour and human rights protections, despite mounting evidence of labour exploitation (Tickler et al., 2018), forced labour (Greenpeace, 2024), and unsafe working conditions in distant-water fishing operations (Guardian, 2024, October 25). The dependence of Kiribati on access fees from foreign fishing fleets reinforces a market logic that undermines stronger domestic regulation, making the country vulnerable to price volatility, geopolitical shifts, ecological degradation, labour exploitation and modern slavery (Stringer et al., 2022)

7.3 Policy Implications

Addressing policy challenges associated with the sustainable governance of marine resources across national borders requires a move toward integrated, justice-oriented solutions that incorporate the priorities of Pacific Island nations. There are myriad policy implications and shifts vital for effective governance change, among international policymakers, and particularly those within intergovernmental organizations (i.e., Pacific Island Form Fishery Agency), global certification bodies (i.e., ISO) and international agencies (i.e., UN, The World Bank and WCPFC). However, two key suggestions come to mind.

First, there is a need to address the power asymmetries in transnational governance, particularly where the inconsistencies in norms, values and expectations undermine equitable participation in managing international relations for all parties and partners. As Jongen and Scholte (2022) argue, structural inequalities within global governance institutions often remain disconnected from legitimacy concerns, even when perceived as problematic by subordinate actors, suggesting that inequality is

normalised or overlooked in practice. Similarly, Gray et al. (2022) emphasise that multistakeholder partnerships are often seen as inclusive platforms for addressing grand challenges; however, they frequently fall short due to unacknowledged or unaddressed power dynamics. Together, such insights point to the need for deeper institutional reflexivity and political consciousness in marine transnational governance arrangements, where SIDS like Kiribati remain structurally marginalised.

From a regional perspective, this could include establishing a Pacific-led decision-making forum and mechanisms (Tekiteki & Nilon, 2025), whereby all Pacific Island nations (not just PNA members) participate to address current initiatives such as fisheries and trade agreements, ocean and marine protection, combating rising sea levels and climate litigation measures. Such an approach inverts conventional top-down flow of norms by grounding governance in the collective aspirations, values and needs of the Pacific peoples, offering an alternative model of transnational legitimacy and institutional development (Wallis et al., 2024).

Second, supranational institutions, particularly the UN, FAO and WHO, should work closely with global certification bodies such as ISO/TC 234, Independent International Organisation for Certification (IIOC), Codex Alimentarius and others to streamline competing certification schemes (i.e., data reporting, food safety, product traceability, PPE, environmental monitoring). Simplifying regimes is essential to reduce complexity and improve accessibility for small-scale fisheries and producers. As Melnychuk et al. (2024) show, even fisheries that initially meet sustainability benchmarks often withdraw from certification programs like the Marine Stewardship Council due to difficulties in maintaining compliance, especially when changes in stock status trigger certification suspension. My findings underscore the importance of designing certification systems that balance scientific rigour with realistic thresholds, support mechanisms, and contextual flexibility to ensure the inclusion and retention of valuable fisheries within a global sustainability framework.

It should also include the mandate for all UN members to engage fully rather than participate as observers (d'Orville, 2023). A renewed multilateralism argued by d'Orville (2023), that must move beyond outdated institutional hierarchies and equip international organizations, particularly the UN, to address complex, transboundary crises through cooperation, pluralism, and equitable participation.

Member engagement could include, for example, the design and revision of certification, contributing to technical working groups, providing funding for national laboratories, research and development, and training for regulatory personnel. Regional bodies such as the FFA and the PNA can also serve as coordination platforms to ensure that small island states hold voting rights, are kept up to date with certification schemes and engage collectively. As highlighted in Hassanali's (2022) analysis of CARICOM's institutional landscape, regional organizations play a significant role in integrating ocean governance strategies, promoting participatory policy development, and overcoming siloed sectoral approaches. While structural gaps in coordination remain a challenge in other regional settings, fishery institutions in the Pacific can be leveraged to foster more unified and inclusive blue economy strategies that reflect the priorities and capacities of Pacific Island nations.

7.4 Research limitations and future research direction

My research relied solely on secondary data, including publicly available reports from WCPFC, international NGOs and certification audits. While such an approach offers breadth, it limits depth due to data gaps and scarcity (Gordon-Strachan et al., 2025), inconsistencies and lack of up-to-date information (Hillbom et al., 2023) and context-specific insights such as stakeholder perspectives and lived experience (Klöck & Nunn, 2019). For future research, engagement with focus groups in the fishing communities, surveys of industry stakeholders, and targeted expert interviews (van Soest, 2023) with regional policy actors is necessary to help triangulate findings and deepen insights. Such an approach would also open space for Pacific views to be culturally appropriated and inclusive (Ofe-Grant et al., 2024; Ponton, 2018), to inform and challenge dominant narratives in global governance.

There are also several areas of underexplored context of sustainable tuna governance not covered in my research that warrant future academic investigation. I address the empirical work needed to assess how labour rights violations manifest across the Pacific tuna supply chain (Yuan et al., 2024), offering a deeper insight into the lived experiences of affected communities and vulnerable individuals,

revealing the human toll concealed within the operations of global seafood value chains, and the extent to which certification schemes can mitigate these risks.

Furthermore, closer attention must be given to the fourth ocean governance driver of “*Inclusiveness*” – to ensure that voices of marginalised or underrepresented groups (Cisneros-Montemayor, 2022) such as small-scale fishers, indigenous communities, and “*women*” (Matovu, 2025), are not only acknowledged, but meaningfully integrated into the design and implementations of regulatory frameworks. A significant gap, particularly in understanding the social costs borne by the most vulnerable, especially women and young girls, within the political economy of transnational fishing.

McNamara and Westoby (2014), in their development research in Tarawa, documented a disturbing pattern wherein Kiribati fathers reportedly facilitated the transport of their daughters to foreign fishing vessels for prostitution in exchange for cash or fish. This trend reflects a deeply gendered dimension of ocean resource extraction, one largely absent from existing tuna governance frameworks and corporate social responsibility discourses. Such a trend is highlighted in the argument that women’s empowerment within the blue economy is underdeveloped across the Global South by Matovu et al.’s (2025), despite the sector’s vast potential.

This phenomenon highlights a paradox at the heart of resource-dependent island economies: while tuna generates substantial national revenue, the distributional inequities and socio-economic vulnerabilities at the local level push some families into exploitative survival modes. These dynamics are often invisible in policy design, certification schemes, supply chain and trade negotiations, yet they are central to any holistic understanding of “sustainability” in the blue economy.

7.5 Conclusion

My study has examined the governance and policy landscape of sustainable tuna fishing in Kiribati, offering a critical case study through which to explore transnational regulatory frameworks in a highly vulnerable small island developing state. Positioned at the heart of the WCPO, a region that supplies

more than half of the world's tuna catch, Kiribati presents a compelling context where global sustainability mandate, local socio-economic needs, and existential insecurity caused by climate change converge.

Drawing on the governance triangle framework and Haas et al. (2022) five drivers influencing ocean governance of *enforced by law, effective and adaptable, credible, inclusive and empowerment*, my study evaluated fifteen regulatory standard-setting (RSS) schemes. This included state-led treaties, NGOs-led conservation initiatives, public-private partnerships, market-based certification, and voluntary corporate commitments. The evaluation revealed four distinct tiers of governance effectiveness. The stratification highlights a persistent mismatch between formal institutional authority and participatory governance, particularly in how inclusion and empowerment are operationalised or neglected in transnational initiatives.

The finding highlights the systemic inequities embedded in global fishing governance. While international instruments such as the FAO Code of Conduct and the UN Port State Measures Agreement offer normative guidance, their voluntary nature, enforcement gaps, and top-down design limit their local relevance. Furthermore, governance regimes aimed at labour rights and small-scale fisheries (e.g., ILO conventions, SSF Guidelines) suffer from poor integration into Pacific policy contexts, revealing a broader neglect of social justice and human rights within the marine sustainability agenda.

Although my study has sought to contribute and build on various institutional theories, organisational justice and equity, supranational institution frameworks and the broader IB literature on the blue economy using secondary data sources. The study is limited by the absence of lived experiences of participants, engagement with focus groups in the fishing communities, surveys of industry stakeholders, and expert interviews with regional policy actors. Such primary sources would help dive deeper into understanding the complexity of transnational regimes and structural vulnerability, and not just a matter of technical compliance. As my research has shown, the most impactful governance approaches are those that move beyond regulatory formality and empower island communities to co-design and co-enforce sustainability pathways on their own terms, according to their needs and priorities. Without such shifts, sustainability will remain an extractive narrative rather than a transformative one.

Kiribati, therefore, stands not only as a recipient of governance but as a frontline contributor to reimagining what ocean governance, justice and sustainability can mean in the twenty-first century.

References

- Abbott, K. W., & Snidal, D. (2008). *Strengthening international regulation through “transnational new governance”*. Unpublished manuscript.
- Abbott, K. W., & Snidal, D. (2021a). The governance triangle: Regulatory standards institutions and the shadow of the state. In *The spectrum of international institutions* (pp. 52–91). Routledge. <https://doi.org/10.4324/9781003111719>.
- Abbott, K. W., & Snidal, D. (2021b). Strengthening international regulation through transnational new governance: Overcoming the orchestration deficit. In *The spectrum of international institutions* (pp. 95–139). Routledge. <https://doi.org/10.4324/9781003111719>.
- Aguilera, R. V., & Grøgaard, B. (2019). The dubious role of institutions in international business: A road forward. *Journal of International Business Studies*, 50(1), 20–35. <https://doi.org/10.1057/s41267-018-0201-5>.
- Ali, M. (2021). A systematic literature review of sustainable entrepreneurship with thematic analysis. *World Journal of Entrepreneurship, Management and Sustainable Development*, 17(4), 742–764. <https://doi.org/10.1108/WJEMSD-11-2020-0150>.
- Andonova, L. B., Hale, T. N., & Roger, C. B. (2017). National policy and transnational governance of climate change: Substitutes or complements? *International Studies Quarterly*, 61(2), 253–268. <https://doi.org/10.1093/isq/sqx014>.
- Andriamahefazafy, M., Touron-Gardic, G., March, A., Hosch, G., Palomares, M. L. D., & Failler, P. (2022). Sustainable Development Goal 14: To what degree have we achieved the 2020 targets for our oceans? *Ocean & Coastal Management*, 227, 106273. <https://doi.org/10.1016/j.ocecoaman.2022.106273>.
- Arora, N. K., Mishra, I., & Arora, P. (2023). SDG 14: Life below water—Viable oceans necessary for a sustainable planet. *Environmental Sustainability*, 6(4), 433–439. <https://doi.org/10.1007/s42398-023-00299-0>.
- Arp, G., Gert, H., Klementyna, K., Gabriela, S., Andreas, R., Joachim, R., & Trichet, J. (2012). Photosynthesis versus exopolymer degradation in the formation of microbialites on the atoll of Kiritimati, Republic of Kiribati, Central Pacific. *Geomicrobiology Journal*, 29(1), 29–65. <https://doi.org/10.1080/01490451.2010.521436>.
- Asia, I. M. F., & Pacific Dept. (2023). *Fisheries developments in Kiribati: Sustainability and growth* (IMF Staff Country Reports, 2023(226), A004). <https://doi.org/10.5089/9798400247606.002.A004>.
- Asian Development Bank. (2024). *Asian Development Bank and Kiribati: Fact sheet*. <https://www.adb.org/publications/kiribati-fact-sheet>
- Auckland University of Technology. (2024). *Databases: Company and industry databases*. Retrieved March 15, 2025, from <https://aut.ac.nz.libguides.com/c.php?g=205006&p=1352122>

- Australian Business Deans Council. (2022). *ABDC journal quality list*. <https://abdc.edu.au/abdc-journal-quality-list/>
- Azmi, K., & Hanich, Q. (2021). Mapping interests in the tuna fisheries of the Western and Central Pacific Ocean. *Ocean & Coastal Management*, 212, 105779. <https://doi.org/10.1016/j.ocecoaman.2021.105779>.
- Banerjee, S. B. (2022). Decolonizing management theory: A critical perspective. *Journal of Management Studies*, 59(4), 1074–1087. <https://doi.org/10.1111/joms.12756>.
- Barclay, K., & Cartwright, I. (2007). Governance of tuna industries: The key to economic viability and sustainability in the Western and Central Pacific Ocean. *Marine Policy*, 31(3), 348–358. <https://doi.org/10.1016/j.marpol.2006.09.007>.
- Barclay, K., & Cartwright, I. (2008). *Capturing the wealth from tuna: Case studies from the Pacific*. ANU Press. <http://library.oapen.org/handle/20.500.12657/33803>
- Bartley, T. (2018). Transnational corporations and global governance. *Annual Review of Sociology*, 44, 145–165. <http://www.jstor.org.ezproxy.aut.ac.nz/stable/44863930>
- Basco, J. E., & Izumi, M. (2011). Milkfish farming and post-harvest training in Kiribati. *FAO Aquaculture Newsletter*, (48), 32. <https://www.proquest.com/openview/5c93f0807ec0ff9350aee4f7451311aa/1?cbl=237326&pq-origsite=gscholar>
- Baxter, P., & Jack, S. (2008). Qualitative case study methodology: Study design and implementation for novice researchers. *The Qualitative Report*, 13(4), 544–559. <https://doi.org/10.46743/2160-3715/2008.1573>.
- Bedford, R., Bedford, C., Corcoran, J., & Didham, R. (2016). Population change and migration in Kiribati and Tuvalu, 2015–2050: Hypothetical scenarios in a context of climate change. *New Zealand Population Review*, 42, 103.
- Bennett, N. J., Blythe, J., White, C. S., & Campero, C. (2021). Blue growth and blue justice: Ten risks and solutions for the ocean economy. *Marine Policy*, 125, 104387. <https://doi.org/10.1016/j.marpol.2020.104387>.
- Benzaken, D., Voyer, M., Pouponneau, A., & Hanich, Q. (2022). Good governance for sustainable blue economy in small islands: Lessons learned from the Seychelles experience. *Frontiers in Political Science*, 4. <https://doi.org/10.3389/fpos.2022.1040318>.
- Bergin, A., & Bateman, S. (1999). Law and order at sea in the South Pacific: The contribution of the Pacific Patrol Boat Project. *Ocean & Coastal Management*, 42(6), 555–568. [https://doi.org/10.1016/S0964-5691\(99\)00037-X](https://doi.org/10.1016/S0964-5691(99)00037-X).
- Berliner, D., & Prakash, A. (2012). From norms to programs: The United Nations Global Compact and global governance. *Regulation & Governance*, 6(2), 149–166. <https://doi.org/10.1111/j.1748-5991.2012.01130.x>.
- Berliner, D., & Prakash, A. (2014). The United Nations Global Compact: An institutionalist perspective. *Journal of Business Ethics*, 122(2), 217–223. <https://doi.org/10.1007/s10551-014-2217-5>.

- Beugelsdijk, S. (2022). Capitalizing on the uniqueness of international business: Towards a theory of place, space, and organization. *Journal of International Business Studies*, 53(9), 2050–2067. <https://doi.org/10.1057/s41267-022-00545-3>.
- Black, S., Davern, M., Maynard, S. B., & Nasser, H. (2023). Data governance and the secondary use of data: The board influence. *Information and Organization*, 33(2), 100447. <https://doi.org/10.1016/j.infoandorg.2023.100447>.
- Blaha, F. (2021, June 5). The illegal, the unreported and the unregulated, and their presence in the WCPO. *Forum Fisheries Agency – Pacific Island (FFA)*. Retrieved March 2, 2025, from <https://tunapacific.ffa.int/2021/06/05/understanding-iuu-fishing-wcpo/>
- Boussebaa, M. (2023). Decolonizing international business. *Critical Perspectives on International Business*, 19(4), 550–565. <https://doi.org/10.1108/cpoib-12-2022-0121>.
- Brennan, P. (2024, March 18). NASA Sea Level Team examines an island nation at risk. *NASA*. <https://sealevel.nasa.gov/news/276/nasa-sea-level-team-examines-an-island-nation-at-risk/>
- Brouwer, S., Pilling, G., Hampton, J., Williams, P., McKechnie, S., & Tremblay-Boyer, L. (2018). The Western and Central Pacific tuna fishery: 2016 overview and status of stock. *Pacific Community*. <https://www.spc.int/updates/news/2019/12/healthy-tuna-stocks-in-the-pacific-pave-the-way-for-strategic-sustainable>
- Browne, C. (2006). *Pacific Island economies*. International Monetary Fund. <https://doi.org/10.5089/9781589065161.071>.
- Buck, E. H. (2009). United Nations Convention on the Law of the Sea: Living resources provisions. *Journal of Current Issues in Crime, Law & Law Enforcement*, 2(4).
- Buckley, P. J. (2009). Internalisation thinking: From the multinational enterprise to the global factory. *International Business Review*, 18(3), 224–235. <https://doi.org/10.1016/j.ibusrev.2009.01.006>.
- Buckley, P. J. (2022). Navigating three vectors of power: Global strategy in a world of intense competition, aggressive nation states, and antagonistic civil society. *Global Strategy Journal*, 12(3), 543–554. <https://doi.org/10.1002/gsj.1444>.
- Bueger, C., & Wivel, A. (2018). How do small island states maximize influence? Creole diplomacy and the smart state foreign policy of the Seychelles. *Journal of the Indian Ocean Region*, 14(2), 170–188. <https://doi.org/10.1080/19480881.2018.1471122>.
- Busby, J. (2018). Warming world: Why climate change matters more than anything else. *Foreign Affairs*, 97(4), 49–55. <http://www.jstor.org.ezproxy.aut.ac.nz/stable/44822212>
- Campbell, B., & Hanich, Q. (2014). *Fish for the future: Fisheries development and food security for Kiribati in an era of global climate change*. WorldFish. <https://worldfishcenter.org/publication/fish-future-fisheries-development-and-food-security-kiribati-era-global-climate-change>
- Campbell, B., Steenbergen, D., Li, O., Sami, A., Nikiari, B., Delisle, A., Neihapi, P., Uriam, T., & Andrew, N. (2024). Characterising a diversity of coastal community fisheries in Kiribati and Vanuatu. *Fish and Fisheries*, 25(5), 837–857. <https://doi.org/10.1111/faf.12849>.

- Campling, L., Lewis, A., & McCoy, M. (2017). *The tuna longline industry in the Western and Central Pacific Ocean and its market dynamics*. Pacific Islands Forum Fisheries Agency.
- Carden, Y. R. (2003). Solid waste-level rise on atoll nation states: A less publicised environmental issue in the Republic of Kiribati. *Australasian Journal of Environmental Management*, 10(1), 35–45. <https://doi.org/10.1080/14486563.2003.10648571>.
- Cauchi, J. P., Moncada, S., Bambrick, H., & Correa-Velez, I. (2021). Coping with environmental hazards and shocks in Kiribati: Experiences of climate change by atoll communities in the Equatorial Pacific. *Environmental Development*, 37, 100549. <https://doi.org/10.1016/j.envdev.2020.100549>.
- Chan, E. S. Y. (2024). China's discourse of maritime power: A thematic analysis. *Journal of Contemporary China*, 1–19. <https://doi.org/10.1080/10670564.2024.2319064>
- Chan, N. (2018). Large Ocean States: Sovereignty, Small Islands, and Marine Protected Areas in Global Oceans Governance, *Global Governance*, 24(4), 537-555. <https://www.jstor.org/stable/26777591>.
- Chen, J., Zhao, Y., & Zhang, T. (2023). Policies for potentially inundated island nations for the retention of marine resources and rights of associated under-water features and exclusive economic FFAs. *Ocean & Coastal Management*, 249, 106786. <https://doi.org/10.1016/j.ocecoaman.2023.106786>.
- Choudhary, P., G, V. S., Khade, M., Savant, S., Musale, A., G, R. K. K., Chelliah, M. S., & Dasgupta, S. (2021). Empowering blue economy: From underrated ecosystem to sustainable industry. *Journal of Environmental Management*, 291, 112697. <https://doi.org/10.1016/j.jenvman.2021.112697>.
- Chowdhury, M. R. K., Hamid, S. A., & Mohd Salleh, N. H. (2024). Maritime dispute resolution: Understanding adequacy of UNCLOS: A systematic review. *Australian Journal of Maritime & Ocean Affairs*, 1–22. <https://doi.org/10.1080/18366503.2024.2416334>.
- Cisneros-Montemayor, A. M., Ducros, A. K., Bennett, N. J., Fusco, L. M., Hessian-Lewis, M., Singh, G. G., & Klain, S. C. (2022). Agreements and benefits in emerging ocean sectors: Are we moving towards an equitable blue economy? *Ocean & Coastal Management*, 220(April), 106097. <https://doi.org/10.1016/j.ocecoaman.2022.106097>.
- Cisneros-Montemayor, A. M., Moreno-Báez, M., Ota, Y., & Cisneros, M. (2022). A primer on the “blue economy:” Promise, pitfalls, and pathways. *One Earth*, 5(9), 982–986. <https://doi.org/10.1016/j.oneear.2022.08.011>.
- Clark Howard, B. (2018). Blue growth: Stakeholder perspectives. *Marine Policy*, 87, 375–377. <https://doi.org/10.1016/j.marpol.2017.11.002>.
- Clegg, L. J., Voss, H., & Chen, L. (2019). Can VUCA Help Us Generate New Theory within International Business? In R. V. Tulder, A. Verbeke, & B. Jankowska (Eds.), *International Business in a VUCA World: The Changing Role of States and Firms* (Vol. 14, pp. 0). Emerald Publishing Limited. <https://doi.org/10.1108/s1745-886220190000014005>.

- Connell, J. (2021). Coral islands, climate change and distant destinies? The view from Kiribati. In S. Moncada, L. Briguglio, H. Bambrick, I. Kelman, C. Iorns, & L. Nurse (Eds.), *Small island developing states: Vulnerability and resilience under climate change* (pp. 369–389). Springer International Publishing. https://doi.org/10.1007/978-3-030-82774-8_17.
- Cornish, G. E., Pearson, J., McNamara, K. E., Alofa, P., & McMichael, C. (2022). Experiences of i-Kiribati with labor mobility schemes. *Asian and Pacific Migration Journal*, 31(2), 162–175. <https://doi.org/10.1177/01171968221107942>.
- CPPL. (2025). *Vision statement*. Central Pacific Producers Ltd. Retrieved March 7, 2025, from <https://www.cppl.com.ki/>
- Crespo, G. O., Dunn, D. C., Reygondeau, G., Boerder, K., Worm, B., Cheung, W., Tittensor, D. P., & Halpin, P. N. (2018). The environmental niche of the global high seas pelagic longline fleet. *Science Advances*, 4(8), eaat3681. <https://doi.org/10.1126/sciadv.aat3681>.
- Croft, F., Breakey, H., Voyer, M., Cisneros-Montemayor, A., Issifu, I., Solitei, M. et al. (2024). Rethinking blue economy governance – A blue economy equity model as an approach to operationalise equity. *Environmental Science & Policy*, 155(May), 103710. <https://doi.org/10.1016/j.envsci.2024.103710>.
- Dang, N. B., Momtaz, S., Zimmerman, K., & Hong Nhung, P. T. (2017). Effectiveness of formal institutions in managing marine fisheries for sustainable fisheries development: A case study of a coastal commune in Vietnam. *Ocean & Coastal Management*, 137, 175–184. <https://doi.org/10.1016/j.ocecoaman.2016.12.021>.
- Dau, L. A., Beugelsdijk, S., Fleury, M. T. L., Roth, K., & Zaheer, S. (2022). What makes international business unique and important as a field? The three Cs of IB. *AIB Insights*, 22(2), 1–9. <https://doi.org/10.46697/001c.33698>.
- Das, J., Sarker, S., Kabir, M. J., & Hossain, M. M. (2024). Stakeholder perceptions of blue economy governance networks and their equity implications in Bangladesh. *Marine Policy*, 170, 106359. <https://doi.org/10.1016/j.marpol.2024.106359>.
- DeBerge, T. (2024). Responsibility boundaries and the governance of global value chains: The interplay of efficiency, ethical and institutional pressures in global strategy. *Global Strategy Journal*, 14(1), 196–222. <https://doi.org/10.1002/gsj.1498>.
- de Salas, K., Scott, J. L., Schüz, B., & Norris, K. (2022). The super wicked problem of ocean health: A socio-ecological and behavioural perspective. *Philosophical Transactions of the Royal Society B: Biological Sciences*, 377(1854), 20210271. <https://doi.org/10.1098/rstb.2021.0271>.
- Demeshko, A., Clifford Astbury, C., Lee, K. M., Clarke, J., Cullerton, K., & Penney, T. L. (2024). The role of corruption in global food systems: A systematic scoping review. *Globalization and Health*, 20(1), 48. <https://doi.org/10.1186/s12992-024-01054-8>.
- Department of Foreign Affairs & Trade. (2024). *Pacific Engagement Visa*. Australian Government. <https://www.dfat.gov.au/geo/pacific/people-connections/people-connections-in-the-pacific/pacific-engagement-visa>
- din, A. ud. (2023). Emerging powers and Small Island Developing States: Leadership or co-option? *India Quarterly*, 79(2), 244–263. <https://doi.org/10.1177/09749284231165082>.

- Dornan, M., & Pryke, J. (2017). Foreign Aid to the Pacific: Trends and Developments in the Twenty-First Century, *Asia & The Pacific Policy Studies*, 4(3), 386-404. <https://doi.org/10.1002/app5.185>.
- d'Orville, H. (2023). The United Nations and new multilateralism. In F. Zhang (Ed.), *Pluralism and world order: Theoretical perspectives and policy challenges* (pp. 135–157). Springer Nature Singapore. https://doi.org/10.1007/978-981-19-9872-0_8.
- Duan, X., Zhao, X., Zou, M., & Chang, Y.-C. (2024). Maritime laws and sustainable development of Blue Economy: Conference report. *Marine Policy*, 169, 106339. <https://doi.org/10.1016/j.marpol.2024.106339>.
- Dubniczki, H. (2024). *Kiribati's tuna purse seine fishery: A case for comprehensive vessel identity information* [Unpublished master's thesis]. Duke University.
- Elsevier. (n.d.). *Scopus: Source list*. Scopus. <https://www.scopus.com/sources.uri>
- Eme, P. E., Burlingame, B., Douwes, J., Kim, N., & Foliaki, S. (2019). Quantitative estimates of dietary intake in households of South Tarawa, Kiribati. *Asia Pacific Journal of Clinical Nutrition*, 28(1), 131–138. <https://search.informit.org/doi/10.3316/informit.264836125309383>.
- FAO. (2001, 2017). *International Plan of Action to Prevent, Deter and Eliminate Illegal, Unreported and Unregulated Fishing*. Food and Agriculture Organization of the United Nations.
- FAO. (2014). *Global blue growth initiatives and Small Island Developing States (SIDS)*. Food and Agriculture Organization of the United Nations. Retrieved March 3, 2025, from <https://openknowledge.fao.org/search?spc.page=1&query=Global%20blue%20growth%20initiatives%20and%20SIDS>
- FAO. (2018). *Kiribati fishery and aquaculture profile*. Retrieved April 1, 2025, from <https://www.fao.org/fishery/en/facp/kir#legalframework>
- FAO. (2024). Indicator 14.6.1: *Progress by countries in the degree of implementation of international instruments aiming to combat illegal, unreported and unregulated fishing*. Retrieved January 22, 2025, from <https://www.fao.org/sustainable-development-goals-data-portal/data/indicators/1461-illegal-unreported-unregulated-fishing/en>
- Fidelman, P., Evans, L. S., Foale, S., Weible, C., von Heland, F., & Elgin, D. (2014). Coalition cohesion for regional marine governance: A stakeholder analysis of the Coral Triangle Initiative. *Ocean & Coastal Management*, 95, 117–128. <https://doi.org/10.1016/j.ocecoaman.2014.04.001>.
- Fiertz, N., Yozell, S., & Rouleau, T. (2022). *Tarawa, Kiribati: Findings from a CORVI rapid assessment*. Stimson Center. <https://www.stimson.org/2022/corvi-risk-profile-tarawa-kiribati/>
- Fletcher, M., Zhao, Y., Plakoyiannaki, E., & Buck, T. (2018). Three pathways to case selection in international business: A twenty-year review, analysis and synthesis. *International Business Review*, 27(4), 755–766. <https://doi.org/10.1016/j.ibusrev.2017.12.004>.
- Fujii, I., Okochi, Y., & Kawamura, H. (2021). Promoting cooperation of monitoring, control, and surveillance of IUU fishing in the Asia-Pacific. *Sustainability*, 13(18), 10231. <https://www.mdpi.com/2071-1050/13/18/10231>

- Fusco, L. M., Knott, C., Cisneros-Montemayor, A. M., Singh, G. G., & Spalding, A. K. (2022). Blueing business as usual in the ocean: Blue economies, oil, and climate justice. *Political Geography*, 98, 102670. <https://doi.org/10.1016/j.polgeo.2022.102670>.
- Ganapathiraju, P., Pitcher, T. J., & Mantha, G. (2019). Estimates of illegal and unreported seafood imports to Japan. *Marine Policy*, 108, 103439. <https://doi.org/10.1016/j.marpol.2019.02.011>.
- Georgeou, N., Hawksley, C., Wali, N., Lountain, S., Rowe, E., West, C., & Barratt, L. (2022). Food security and small holder farming in Pacific Island countries and territories: A scoping review. *PLOS Sustainability and Transformation*, 1(4), e0000009. <https://doi.org/10.1371/journal.pstr.0000009>.
- Global Green Growth Institute. (2024). *Kiribati launches ambitious climate finance strategy to enhance access to global funds*. <https://gggi.org/?p=67811#:~:text=Kiribati%20Launches%20Ambitious%20Climate%20Finance,Funds%20%E2%80%94%20Global%20Green%20Growth%20Institute>
- Ghauri, P. N., & Firth, R. (2009). The formalization of case study research in international business. *Der Markt*, 48(1), 29–40. <https://doi.org/10.1007/s12642-009-0003-1>.
- Gómez-Baggethun, E., & Naredo, J. M. (2015). In search of lost time: The rise and fall of limits to growth in international sustainability policy. *Sustainability Science*, 10(3), 385–395. <https://doi.org/10.1007/s11625-015-0308-6>.
- Goodman, C. (2013). “Strength through cooperation”: A 21st century treaty for multilateral maritime enforcement in the Pacific. *Australian Year Book of International Law*, 31, 11–39. <https://search.informit.org/doi/10.3316/informit.960317463246171>.
- Gordon-Strachan, G. M., Parker, S. Y., Harewood, H. C., Méndez-Lázaro, P. A., Saketa, S. T., Parchment, K. F., Walawender, M., Abdulkadri, A. O., Beggs, P. J., Buss, D. F., Chodak, R. J., Dasgupta, S., De Santis, O., Guthrie-Dixon, N. G., Hassan, S., Kennard, H., Maharaj, S. B., Marshall, K. G., McFarlane, S. R., ... Romanello, M. (2025). The 2024 Small Island Developing States report of the Lancet Countdown on health and climate change. *The Lancet Global Health*, 13(1), e146–e166. [https://doi.org/10.1016/S2214-109X\(24\)00421-2](https://doi.org/10.1016/S2214-109X(24)00421-2).
- Gray, B., Purdy, J., & Ansari, S. (2022). Confronting power asymmetries in partnerships to address grand challenges. *Organization Theory*, 3(2). <https://doi.org/10.1177/26317877221098765>.
- Greenpeace. (2024). *Netting profits, risking lives: The unresolved human and environmental exploitation at sea*. Greenpeace. <https://www.greenpeace.org/static/planet4-southeastasia-stateless/2024/12/4064c1f5-greenpeace-seabound-3.0-2024-final.pdf>
- Greenwood, R., Raynard, M., Kodeih, F., Micelotta, E. R., & Lounsbury, M. (2011). Institutional Complexity and Organizational Responses. *Academy of Management Annals*, 5(1), 317–371. <https://doi.org/10.5465/19416520.2011.590299>.
- Grimes, B. M. (2025). The formula for “sustainable” tuna. *Pace Environmental Law Review*, 42(2), 1.
- Grydehøj, A., & Kelman, I. (2020). Reflections on conspicuous sustainability: Creating Small Island Dependent States (SIDS) through ostentatious development assistance (ODA)? *Geoforum*, 166, 90–97. <https://doi.org/10.1016/j.geoforum.2020.08.004>.

- Guardian, S. (2024, October 25). Shark Guardian investigation: Global tuna giant Fong Chun Formosa fails to act on shocking environmental and human rights. *Shark Guardian*. Retrieved May 30, 2025, from <https://www.sharkguardian.org/post/fong-chun-formosa-investigation>
- Guggisberg, S., Jaeckel, A., & Stephens, T. (2022). Transparency in fisheries governance: Achievements to date and challenges ahead. *Marine Policy*, *136*, 104639. <https://doi.org/10.1016/j.marpol.2021.104639>.
- Haas, B., Azmi, K., & Davis, R. (2024). Pacific tuna update: 20th Meeting of the Western and Central Pacific Fisheries Commission. *Marine Policy*, *168*, Article 106320. <https://doi.org/10.1016/j.marpol.2024.106320>.
- Haas, B., Mackay, M., Novaglio, C., Fullbrook, L., Murunga, M., Sbrocchi, C., McDonald, J., McCormack, P. C., Alexander, K., Fudge, M., Goldsworthy, L., Boschetti, F., Dutton, I., Dutra, L., McGee, J., Rousseau, Y., Spain, E., Stephenson, R., Vince, J., ... Haward, M. (2022). The future of ocean governance. *Reviews in Fish Biology and Fisheries*, *32*(1), 253–270. <https://doi.org/10.1007/s11160-020-09631-x>.
- Haas, B., McGee, J., Fleming, A., & Haward, M. (2020). Factors influencing the performance of regional fisheries management organizations. *Marine Policy*, *113*, 103787. <https://doi.org/10.1016/j.marpol.2019.103787>.
- Hale, T. (2020). Transnational actors and transnational governance in global environmental politics. *Annual Review of Political Science*, *23*(1), 203–220. <https://doi.org/10.1146/annurev-polisci-050718-032644>.
- Hartmann, S., Lindner, T., Müllner, J., & Puck, J. (2022). Beyond the nation-state: Anchoring supranational institutions in international business research. *Journal of International Business Studies*, *53*(6), 1282–1306. <https://doi.org/10.1057/s41267-022-00537-3>.
- Hassanali, K. (2020). CARICOM and the blue economy – Multiple understandings and their implications for global engagement. *Marine Policy*, *120*, 104137. <https://doi.org/10.1016/j.marpol.2020.104137>.
- Hassanali, K. (2022). Examining institutional arrangements toward coordinated regional ocean governance and blue economy policy development in the Caribbean Community (CARICOM). *Coastal Management*, *50*(5), 385–407. <https://doi.org/10.1080/08920753.2022.2082835>.
- Head, B. W. (2022). *Wicked problems in public policy*. Palgrave Macmillan. <https://doi.org/10.1007/978-3-030-94580-0>.
- Hillbom, E., Palacio, A., & Tegunimataka, A. (2023). How do Small Island Developing States meet the Sustainable Development Goals? *Journal of Sustainable Development*, *16*(1), 17–37.
- Hosch, G., Miller, N. A., Fader, J., Young, E., Yvergniaux, Y., Hanbury, R., & Huntington, T. (2025). Don't follow trends, start trends: PSMA implementation and port state performance from 2017 to 2023. *Ocean & Coastal Management*, *262*, 107584. <https://doi.org/10.1016/j.ocecoaman.2025.107584>.
- Hsieh, H.-F., & Shannon, S. E. (2005). Three approaches to qualitative content analysis. *Qualitative Health Research*, *15*(9), 1277–1288. <https://doi.org/10.1177/1049732305276687>.

- Human Synergistics. (2013). *Strengthening organizations through individual effectiveness: Combine self-development guide* [Customer textbook]. Human Synergistics Inc.
- Hunziker, S., & Blankenagel, M. (2021). Single case research design. In S. Hunziker & M. Blankenagel (Eds.), *Research design in business and management: A practical guide for students and researchers* (pp. 141–170). Springer Fachmedien Wiesbaden.
https://doi.org/10.1007/978-3-658-34357-6_8.
- Iberdrola. (2025). *Kiribati, the first country rising sea levels will swallow up as a result of climate change*. Iberdrola. Retrieved March 17, 2025, from <https://www.iberdrola.com/sustainability/kiribati-climate-change>
- International Monetary Fund. (2020). *Kiribati population, persons, number of*. International Monetary Fund. Retrieved March 19, 2025, from <https://data-imf-org.ezproxy.aut.ac.nz/en/Data%20Explorer?datasetUrn=IMF.RES%3AWEO%286.0.0%29&ti meseriesName=KIR.LP.A>
- IMF Asia Pacific Dept. (2023). *Kiribati: 2023 Article IV consultation – Press release; and staff report* (IMF Staff Country Report No. 2023(329), A001).
<https://doi.org/10.5089/9798400255090.002.A001>.
- Iqbal, N., Ejaz, S. M., & Altmash, M. (2020). Climate change as a key contributor to migrant crisis: A case study of developmental & environmental challenges to Kiribati people. *OIDA International Journal of Sustainable Development*, 13(09), 43–54.
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4242935
- Issifu, I., Dahmouni, I., Deffor, E. W., & Sumaila, U. R. (2023). Diversity, equity, and inclusion in the blue economy: Why they matter and how do we achieve them? *Frontiers in Political Science*, 4, Article 1067481. <https://doi.org/10.3389/fpos.2022.1067481>.
- Johanson, J., & Vahlne, J.-E. (1977). The internationalization process of the firm—A model of knowledge development and increasing foreign market commitments. *Journal of International Business Studies*, 8(1), 23–32. <https://doi.org/10.1057/palgrave.jibs.8490676>.
- Jongen, H., & Scholte, J. A. (2022). Inequality and legitimacy in global governance: An empirical study. *European Journal of International Relations*, 28(3), 667–695.
<https://doi.org/10.1177/13540661221098218>.
- Jouffray, J.-B., Blasiak, R., Norström, A. V., Österblom, H., & Nyström, M. (2020). The Blue Acceleration: The trajectory of human expansion into the ocean. *One Earth*, 2(1), 43–54.
<https://doi.org/10.1016/j.oneear.2019.12.016>.
- Kano, L., Tsang, E. W. K., & Yeung, H. W.-c. (2020). Global value chains: A review of the multi-disciplinary literature. *Journal of International Business Studies*, 51(4), 577–622.
<https://doi.org/10.1057/s41267-020-00304-2>.
- Karavias, M. (2018). Interactions between international law and private fisheries certification. *Transnational Environmental Law*, 7(1), 165–184.
<https://doi.org/10.1017/S2047102517000139>.

- Keen, M. R., Schwarz, A.-M., & Wini-Simeon, L. (2018). Towards defining the blue economy: Practical lessons from Pacific Ocean governance. *Marine Policy*, 88, 333–341. <https://doi.org/10.1016/j.marpol.2017.03.002>.
- Keping, Y. (2018). Governance and good governance: A new framework for political analysis. *Fudan Journal of the Humanities and Social Sciences*, 11(1), 1–8. <https://doi.org/10.1007/s40647-017-0197-4>.
- Kiribati Environment Data Portal. (2021). *Kiribati National Fisheries Policy 2013–2025*. Retrieved April 1, 2025, from <https://kiribati-data.sprep.org/resource/knfp-2013-2025>
- Kiribati Fishing Limited. (n.d.). *Home*. Retrieved March 31, 2025, from <https://kiribatifishltd.com/>
- Kiribati Government. (2010). *Fisheries Act 2010*. Retrieved April 1, 2025, from https://kiribati.gov.ki/my-government/acts?title=Fisheries&field_ministry_tid=All&field_event_date_value%5Bvalue%5D%5Byear%5D=
- Kiribati National Statistics Office. (2023). *Kiribati agriculture and fisheries report – Based on the analysis of the 2020 population and housing census*. Retrieved from <https://nso.gov.ki/census/kiribati-agriculture-and-fisheries-report-based-on-2020-census/>
- Kiribati National Statistics Office. (2024). *Immigration*. Retrieved February 19, 2025, from <https://nso.gov.ki/statistics/social/immigration/>
- Kirr, J. S. (2021). *Effectiveness of transnational adaptation initiatives in the Global South*. Faculty of Science, Department of Environmental and Geographical Science. Retrieved June 15, 2025, from <http://hdl.handle.net/11427/35754>
- Klöck, C., & Nunn, P. D. (2019). Adaptation to climate change in small island developing states: A systematic literature review of academic research. *The Journal of Environment & Development*, 28(2), 196–218.
- Kullenberg, G. (2010). Human empowerment: Opportunities from ocean governance. *Ocean & Coastal Management*, 53(8), 405–420. <https://doi.org/10.1016/j.ocecoaman.2010.06.006>.
- Lambin, E. F., & Thorlakson, T. (2018). Sustainability standards: Interactions between private actors, civil society, and governments. *Annual Review of Environment and Resources*, 43, 369–393. <https://doi.org/10.1146/annurev-environ-102017-025931>.
- Lindley, J., Percy, S., & Techera, E. (2019). Illegal fishing and Australian security. *Australian Journal of International Affairs*, 73(1), 82–99. <https://doi.org/10.1080/10357718.2018.1548561>.
- Long, T. (2017). Small states, great power? Gaining influence through intrinsic, derivative, and collective power. *International Studies Review*, 19(2), 185–205. <https://www.jstor.org/stable/26407895>
- Louey, P. (2022). The Pacific blue economy: An instrument of political maneuver. *Marine Policy*, 135, 104880. <https://doi.org/10.1016/j.marpol.2021.104880>.
- Lowy Institute. (2024). *Pacific Aid Map: Kiribati*. <https://pacificaidmap.lowyinstitute.org/country/kiribati/#5.081/-173.856/0.679>

- Lyons, P., Mynott, S., & Melbourne-Thomas, J. (2023). Enabling Indigenous innovations to re-centre social licence to operate in the Blue Economy. *Marine Policy*, 147, 105384. <https://doi.org/10.1016/j.marpol.2022.105384>.
- Mallin, F., & Barbesgaard, M. (2020). Awash with contradiction: Capital, ocean space and the logics of the Blue Economy Paradigm. *Geoforum*, 113, 121–132. <https://doi.org/10.1016/j.geoforum.2020.04.021>.
- Mallin, M. A. F., Stolz, D. C., Thompson, B. S., & Barbesgaard, M. (2019). In oceans we trust: Conservation, philanthropy, and the political economy of the Phoenix Islands Protected Area. *Marine Policy*, 107, 103421. <https://doi.org/10.1016/j.marpol.2019.01.010>.
- Matovu, B., Nayeem, S. M., Musasizi, C., & Bristow, D. (2025). Linking the blue economy to women’s empowerment to create avenues for the realization of ocean sustainability targets in the global south. *Ocean & Coastal Management*, 262(March), 107582. <https://doi.org/10.1016/j.ocecoaman.2025.107582>.
- McCauley, D. J., Jablonicky, C., Allison, E. H., Golden, C. D., Joyce, F. H., Mayorga, J., & Kroodsma, D. (2018). Wealthy countries dominate industrial fishing. *Science Advances*, 4(8), eaau2161. <https://doi.org/10.1126/sciadv.aau2161>.
- McNamara, K. E., & Westoby, R. (2014). Ironies of globalisation: Observations from Fiji and Kiribati. *The Journal of Pacific Studies*, 34(2), 53–62.
- Melnychuk, M., Sinner, J., Booth, K., Branch, T. A., Hilborn, R., Kaiser, M. J., & Vincent, A. C. J. (2024). Rates and drivers of fishery certification and withdrawal from the MSC program. *Marine Policy*, 170(December), 106343. <https://doi.org/10.1016/j.marpol.2024.106343>.
- Merino, G., Barange, M., Blanchard, J. L., Harle, J., Holmes, R., Allen, I., Allison, E. H., Badjeck, M. C., Dulvy, N. K., Holt, J., Jennings, S., Mullon, C., & Rodwell, L. D. (2012). Can marine fisheries and aquaculture meet fish demand from a growing human population in a changing climate? *Global Environmental Change*, 22(4), 795–806. <https://doi.org/10.1016/j.gloenvcha.2012.03.003>.
- MFOR. (2025a). *About us*. Ministry of Fisheries and Ocean Resource. Retrieved March 31, 2025, from <https://www.mfor.gov.ki/index.php/about/about-us>
- MFOR. (2025b). *Coastal Fisheries Division*. Ministry of Fisheries and Ocean Resource. Retrieved April 1, 2025, from Ministry of Fisheries and Ocean Resource
- MFOR. (2025c). *Kirimati Fish Limited (KIFL)*. Ministry of Fisheries and Ocean Resource. Retrieved April 1, 2025, from <https://www.mfor.gov.ki/index.php/soes/kifl>
- MFOR. (2025d). *Our Organisation*. Ministry of Fisheries and Ocean Resource. Retrieved April 1, 2025, from <https://www.mfor.gov.ki/index.php/about/our-organisation>
- Miller, A. M. M., Bush, S. R., & Mol, A. P. J. (2014). Power Europe: EU and the illegal, unreported and unregulated tuna fisheries regulation in the West and Central Pacific Ocean. *Marine Policy*, 45, 138–145. <https://doi.org/10.1016/j.marpol.2013.12.009>.

- Monaco, E., & Abe, M. (2024). Kiribati's graduation from Least Developed Country status: An analysis of strengths, weaknesses, opportunities and threats. *Asia & the Pacific Policy Studies*, 11(1), e380. <https://doi.org/10.1002/app5.380>.
- Morgan, W., Carter, S. G., & Manoa, F. (2024). Leading from the frontline: A history of Pacific climate diplomacy. *The Journal of Pacific History*, 59(3), 353–374. <https://doi.org/10.1080/00223344.2024.2360093>.
- Morgan, W., Dean, A., & Bradshaw, S. (2022). *A fight for survival: Tackling the climate crisis is key to security in the Blue Pacific*. Climate Council. <https://www.climatecouncil.org.au/resources/fight-for-survival-security-blue-pacific/>
- Muzio, D. (2022). Re-conceptualizing management theory: How do we move away from Western-centred knowledge? *Journal of Management Studies*, 59(4), 1032–1035. <https://doi.org/10.1111/joms.12753>.
- Nakamura, J. N. (2022). Legal reflections on the Small-Scale Fisheries Guidelines: Building a global safety net for small-scale fisheries. *The International Journal of Marine and Coastal Law*, 37(1), 31–72. <https://doi.org/10.1163/15718085-bja10081>.
- Nakamura, K. (2024). Is tuna ecolabeling causing fishers more harm than good? *npj Ocean Sustainability*, 3(1), 39. <https://doi.org/10.1038/s44183-024-00074-6>.
- NASA. (2024). *NASA analysis shows irreversible sea level rise for Pacific Islands*. NASA <https://www.nasa.gov/earth/climate-change/nasa-analysis-shows-irreversible-sea-level-rise-for-pacific-islands/>
- New Zealand Foreign Affairs & Trade. (2021). *New Zealand's four year plan for Kiribati*. Retrieved April 15, 2025, from <https://www.mfat.govt.nz/en/countries-and-regions/australia-and-pacific/kiribati#:~:text=Each%20year%2C%20a%20number%20of,the%20workers%20families%20and%20communities>.
- New Zealand Immigration. (2025). *Pacific Access Category*. Retrieved April 15, 2025, from <https://www.immigration.govt.nz/about-us/media-centre/common-topics/pacific-access-category>
- Nguyen, L. N. (2021). Jurisdiction and applicable law in the settlement of marine environmental disputes under UNCLOS. *The Korean Journal of International and Comparative Law*, 9(2), 337–353. <https://doi.org/10.1163/22134484-12340161>.
- Ofe-Grant, M. B., Elikana, M., Saulilo, L., Vimahi, L., O'Brien, S., & Joseph, E. (2024). Co-creating inclusion in research practices in the South Pacific: Some highlights and challenges. *Critical Perspectives on International Business*, 21(1), 89–104. <https://doi.org/10.1108/cpoib-04-2024-0042>.
- O'Neill, A. (2025). *Kiribati – Share of economic sectors in the gross domestic product (GDP) from 2012 to 2022*. Statista. <https://www.statista.com/statistics/529156/share-of-economic-sectors-in-the-gdp-in-kiribati/>
- O'Sullivan, D. (2008). The Treaty of Waitangi in contemporary New Zealand politics. *Australian Journal of Political Science*, 43(2), 317–331. <https://doi.org/10.1080/10361140802035804>.

- Pacific Community. (2022). *Tuna fisheries status and management in the Western and Central Pacific Ocean*. Pacific Community <https://www.spc.int>
- Pacific Data Hub. (2022). *Sustainable Development Goal 06 – Clean water and sanitation*. [https://stats.pacificdata.org/vis?tm=water&pg=0&snb=23&df\[ds\]=ds%3ASPC2&df\[id\]=DF_SDG_06&df\[ag\]=SPC&df\[vs\]=3.0&pd=2016%2C2022&dq=A.....&ly\[cl\]=TIME_PERIOD&ly\[rs\]=URBANIZATION%2CINDICATOR&ly\[rw\]=GEO_PICT&to\[TIME_PERIOD\]=false&isAvailabilityDisabled=false](https://stats.pacificdata.org/vis?tm=water&pg=0&snb=23&df[ds]=ds%3ASPC2&df[id]=DF_SDG_06&df[ag]=SPC&df[vs]=3.0&pd=2016%2C2022&dq=A.....&ly[cl]=TIME_PERIOD&ly[rs]=URBANIZATION%2CINDICATOR&ly[rw]=GEO_PICT&to[TIME_PERIOD]=false&isAvailabilityDisabled=false)
- Packer, H., Swartz, W., Ota, Y., & Bailey, M. (2019). Corporate social responsibility (CSR) practices of the largest seafood suppliers in the wild capture fisheries sector: *From vision to action*. *Sustainability*, 11(8), 2254. <https://doi.org/10.3390/su11082254>.
- Paniagua, P., & Rayamajhee, V. (2024). Governing the global fisheries commons. *Marine Policy*, 165(July), 106182. <https://doi.org/10.1016/j.marpol.2024.106182>.
- Parolin, G., Arnbjerg-Nielsen, J., McAloone, T. C., & Pigosso, D. C. A. (2025). Navigating trade-offs in design for sustainability and circularity: A tool for decision making leveraging narratives and multiple criteria decision analysis. *Journal of Cleaner Production*, 494, 145004. <https://doi.org/10.1016/j.jclepro.2025.145004>.
- Passport. (2024). *PEST analysis: Kiribati country report* 24 January 2024. Euromonitor International. <https://www-portal-euromonitor-com.ezproxy.aut.ac.nz/Analysis/Tab>
- Passport Health. (2025). *Travel vaccines and advice for Kiribati*. <https://www.passporthealthusa.com/destination-advice/kiribati/>
- Pattberg, P., & Stripple, J. (2008). Beyond the public and private divide: Remapping transnational climate governance in the 21st century. *International Environmental Agreements: Politics, Law and Economics*, 8(4), 367–388. <https://doi.org/10.1007/s10784-008-9085-3>.
- Pegram, T. (2015). Global human rights governance and orchestration: National human rights institutions as intermediaries. *European Journal of International Relations*, 21(3), 595–620. <https://doi.org/10.1177/1354066114548079>.
- Persson, Å., & Dzebo, A. (2019). Special issue: Exploring global and transnational governance of climate change adaptation. *International Environmental Agreements: Politics, Law and Economics*, 19(4), 357–367. <https://doi.org/10.1007/s10784-019-09440-z>.
- Petersson, M. T. (2023). Transnational Partnerships' Strategies in Global Fisheries Governance. In L. M. Dellmuth & E. A. Bloodgood (Eds.), *Advocacy Group Effects in Global Governance: Populations, Strategies, and Political Opportunity Structures* (pp. 259-282). Switzerland, Springer Nature. https://doi.org/10.1007/978-3-031-27864-8_9.
- Piekkari, R., Welch, C., & Paavilainen, E. (2009). The case study as disciplinary convention: Evidence from international business journals. *Organizational Research Methods*, 12(3), 567–589. <https://doi.org/10.1177/1094428108319905>.
- Pons, M., Kaplan, D., Moreno, G., Escalle, L., Abascal, F., Hall, M., Restrepo, V., & Hilborn, R. (2023). Benefits, concerns, and solutions of fishing for tunas with drifting fish aggregation devices. *Fish and Fisheries*, 24(6), 979–1002. <https://doi.org/10.1111/faf.12780>.

- Ponte, S. (2012). The Marine Stewardship Council (MSC) and the making of a market for ‘sustainable fish’. *Journal of Agrarian Change*, 12(2–3), 300–315. <https://doi.org/10.1111/j.1471-0366.2011.00345.x>.
- Ponton, V. (2018). Utilizing Pacific methodologies as inclusive practice. *SAGE Open*, 8(3). <https://doi.org/10.1177/2158244018792962>.
- Pravettoni, R. (2010). *Maritime zones*. GRID-Arendal. <https://www.grida.no/resources/7923>
- Pretes, M., & Petersen, E. (2004). Rethinking fisheries policy in the Pacific. *Marine Policy*, 28(4), 297–309. <https://doi.org/10.1016/j.marpol.2003.09.006>.
- Rašković, M. (2022). International business policymaking for a “wicked” world. *Journal of International Business Policy*, 5(3), 353–362. <https://doi.org/10.1057/s42214-021-00113-w>.
- Rašković, M. (2024). Re-solving wicked problems in global value chains: How probing into modern slavery can advance MNE research and support better policymaking. *Critical Perspectives on International Business*, 20(3), 340–358. <https://doi.org/10.1108/cpoib-03-2024-0025>.
- Ridder, H.-G. (2017). The theory contribution of case study research designs. *Business Research*, 10(2), 281–305. <https://doi.org/10.1007/s40685-017-0045-z>.
- Roger, C., & Dauvergne, P. (2016). The rise of transnational governance as a field of study. *International Studies Review*, 18(3), 415–437. <http://www.jstor.org/stable/26407948>
- Rose-Ackerman, S. (2017). What does “governance” mean? *Governance*, 30(1), 23–27. <https://doi.org/10.1111/gove.12212>.
- Rout, M., Reid, J., Mika, J. P., Whitehead, J., Gillies, A., Wiremu, F., McLellan, G., & Ruha, C. (2024). Indigenising the blue economy in Aotearoa New Zealand. *Marine Policy*, 161, 105987. <https://doi.org/10.1016/j.marpol.2023.105987>.
- Sabūnas, A., Miyashita, T., Fukui, N., Shimura, T., & Mori, N. (2021). Impact assessment of storm surge and climate change-enhanced sea level rise on atoll nations: A case study of the Tarawa atoll, Kiribati. *Frontiers in Built Environment*, 7, 752599. <https://doi.org/10.3389/fbuil.2021.752599>.
- Schäferhoff, M., Campe, S., & Kaan, C. (2009). Transnational public-private partnerships in international relations: Making sense of concepts, research frameworks, and results. *International Studies Review*, 11(3), 451–474. <https://doi.org/10.1111/j.1468-2486.2009.00869.x>
- Schiller, L., Auld, G., Hanich, Q., & Bailey, M. (2023). Increasing industry involvement in international tuna fishery negotiations. *One Earth*, 6(1), 41–54. <https://doi.org/10.1016/j.oneear.2022.12.001>.
- Schutter, M. S., Hicks, C. C., Phelps, J., & Waterton, C. (2021). The blue economy as a boundary object for hegemony across scales. *Marine Policy*, 132, 104673. <https://doi.org/10.1016/j.marpol.2021.104673>.
- Senina, I., Lehodey, P., Smith, N., Hampton, J., Reid, C., Bell, J., & Partners. (2018). *Impact of climate change on tropical tuna species and tuna fisheries in Pacific Island waters and high*

seas areas: Final report (CI-3) for SAN 6003922.

<https://www.fao.org/home/search/en/?q=Tuna+fishing+in+WCPO>

- Seta, M. (2019). The contribution of the International Organization for Standardization to ocean governance. *Review of European, Comparative & International Environmental Law*, 28(3), 304–313. <https://doi.org/10.1111/reel.12303>.
- Silver, J. J., Gray, N. J., Campbell, L. M., Fairbanks, L. W., & Gruby, R. L. (2015). Blue economy and competing discourses in international oceans governance. *The Journal of Environment & Development*, 24(2), 135–160. <https://doi.org/10.1177/1070496515580797>.
- Singh, G. G., Cisneros-Montemayor, A. M., Swartz, W., Cheung, W., Guy, J. A., Kenny, T.-A., McOwen, C. J., Asch, R., Geffert, J. L., Wabnitz, C. C. C., Sumaila, R., Hanich, Q., & Ota, Y. (2018). A rapid assessment of co-benefits and trade-offs among Sustainable Development Goals. *Marine Policy*, 93, 223–231. <https://doi.org/10.1016/j.marpol.2017.05.030>.
- Smith, R., & McNamara, K. E. (2015). Future migrations from Tuvalu and Kiribati: Exploring government, civil society and donor perceptions. *Climate and Development*, 7(1), 47–59. <https://doi.org/10.1080/17565529.2014.900603>.
- Spalding, A. K., & de Ycaza, R. (2020). Navigating shifting regimes of ocean governance: From UNCLOS to Sustainable Development Goal 14. *Environment and Society*, 11(1), 5–26. <https://doi.org/10.3167/ares.2020.110102>.
- Spoz, A., & Ziolo, M. (2025). Sustainable finance for a blue economy. In S. Grima, D. Maditinos, G.-G. Noja, J. Stankevičienė, M. Tarczynska-Luniewska, E. I. Thalassinos, & K. Nermend (Eds.), *Green wealth: Navigating towards a sustainable future* (Vol. 117, pp. 5–21). Emerald Publishing. <https://doi.org/10.1108/S1569-375920250000117002>.
- Springer Nature Limited. (2020). Kiribati. In *The Statesman's yearbook 2020: The politics, cultures and economies of the world* (pp. 713–715).
- Stats NZ. (2018). *Kiribati ethnic group: Population characteristics*. Retrieved 31 February 2025 <https://www.stats.govt.nz/tools/2018-census-ethnic-group-summaries/kiribati>
- Steven, R. H., Peter, G. W., Jemery, D., Castillo, J. C., Paul, A. H., William, J. H., Jed, M., Arni, M., Robert, D. S., Joe, S. P., Inna, S., & Graham, M. P. (2023). *The Western and Central Pacific tuna fishery: 2022 overview and status of stocks*. Western and Central Pacific Fisheries Commission. <https://meetings.wcpfc.int/node/21445>
- Storey, D., & Hunter, S. (2010). Kiribati: An environmental ‘perfect storm’. *Australian Geographer*, 41(2), 167–181. <https://doi.org/10.1080/00049181003742294>.
- Stringer, C., Burmester, B., & Michailova, S. (2022). Modern slavery and the governance of labor exploitation in the Thai fishing industry. *Journal of Cleaner Production*, 371, 133645. <https://doi.org/10.1016/j.jclepro.2022.133645>.
- Suddaby, R., Bitektine, A., & Haack, P. (2017). Legitimacy. *Academy of Management Annals*, 11(1), 451–478. <https://doi.org/10.5465/annals.2015.0101>.

- Suliman, S., Farbotko, C., Ransan-Cooper, H., McNamara, K. E., Thornton, F., McMichael, C., & Kitara, T. (2019). Indigenous (im)mobilities in the Anthropocene. *Mobilities*. <https://doi.org/10.1080/17450101.2019.1601828>.
- Sumaila, U. R., Skerritt, D. J., Schuhbauer, A., Villasante, S., Cisneros-Montemayor, A. M., Sinan, H., Burnside, D., Abdallah, P. R., Abe, K., Addo, K. A., Adelsheim, J., Adewumi, I. J., Adeyemo, O. K., Adger, N., Adotey, J., Advani, S., Afrin, Z., Aheto, D., Akintola, S. L., ... Zeller, D. (2021). WTO must ban harmful fisheries subsidies. *Science*, 374(6567), 544. <https://doi.org/10.1126/science.abm1680>.
- Tekiteki, S., & Nilon, J. (2025, March 15). *A Blue Pacific rules-based order: 'Our home, our rules'*. RNZ. Retrieved June 30, 2025, from <https://www.rnz.co.nz/news/pacific/544898/a-blue-pacific-rules-based-order-our-home-our-rules>
- The Church of Jesus Christ of Latter-day Saints. (n.d.). *Doctrine and Covenants*. <https://www.churchofjesuschrist.org/study/scriptures/dc-testament/dc/109?lang=eng>
- The Global Economy. (2019). *Inequality and poverty – Kiribati*. The World Bank. https://www.theglobaleconomy.com/Kiribati/poverty_ratio_high_range/
- The Global Economy. (2022). *Kiribati: Human development*. The World Bank. https://www.theglobaleconomy.com/Kiribati/human_development/
- The World Bank. (2020). *Project appraisal document on a proposed grant in the amount of SDR 14.2 million (US\$19.5 million equivalent) to the Republic of Kiribati for a Kiribati: Pacific Islands Regional Oceanscape Program (PAD3249)*. The World Bank. <https://documents.worldbank.org/curated/en/904981584324108717/pdf/Kiribati-Pacific-Islands-Regional-Oceanscape-Program.pdf>
- The World Bank. (2023). *Kiribati development indicators*. The World Bank <https://databank.worldbank.org/reports.aspx?source=2&country=KIR>
- The World Bank. (2025). *Remittance inflows to GDP for Kiribati*. Federal Reserve Bank of St. Louis (FRED). <https://fred.stlouisfed.org/series/DDO11KIA156NWDB>
- The World Bank Group. (2025). *GDP per capita (current US\$) – Kiribati, Solomon Islands, Marshall Islands, Nauru, Palau, Tuvalu, Papua New Guinea*. World Bank. https://data.worldbank.org/indicator/NY.GDP.PCAP.CD?end=2023&locations=KI-SB-MH-NR-PW-TV-PG&name_desc=false&start=1960&view=chart
- Thompson, M. A. (2016). *The settlement experiences of Kiribati migrants living in New Zealand* [Master's thesis, University of Otago].
- Tickler, D., Meeuwig, J. J., Bryant, K., David, F., Forrest, J. A. H., Gordon, E., Larsen, J. J., Oh, B., Pauly, D., Sumaila, U. R., & Zeller, D. (2018). Modern slavery and the race to fish. *Nature Communications*, 9(1), 4643. <https://doi.org/10.1038/s41467-018-07118-9>.
- Trading Economics. (2020). *Kiribati - Remittance inflows to GDP*. Trading Economics. <https://tradingeconomics.com/kiribati/remittance-inflows-to-gdp-percent-wb-data.html>
- UN Human Development Report. (2024). *Kiribati: Human Development Index*. <https://hdr.undp.org/data-center/specific-country-data#/countries/KIR>

- UNCTAD. (2024). *UN list of least developed countries*. United Nations. <https://unctad.org/topic/least-developed-countries/list>
- United Nations. (2018). *Review of SDGs implementation: SDG 17 – Strengthening the means of implementation and revitalize the global partnership for sustainable development*. United Nations. <https://sdgs.un.org/events/review-sdgs-implementation-sdg-17-strengthening-means-implementation-and-revitalize-global>
- United Nations. (2023). *The Sustainable Development Goals Report 2023: Special edition*. United Nations. <https://unstats.un.org/sdgs/report/2023/The-Sustainable-Development-Goals-Report-2023.pdf>
- United Nations. (2024). *The Sustainable Development Goals Report 2024*. United Nations. <https://unstats.un.org/sdgs/report/2024/>
- Van Alstine, J., Afionis, S., & Doran, P. (2013). The UN Conference on Sustainable Development (Rio+20): A sign of the times or ‘ecology as spectacle’? *Environmental Politics*, 22(2), 333–338. <https://doi.org/10.1080/09644016.2013.765162>.
- van Soest, C. (2023). Why Do We Speak to Experts? Reviving the Strength of the Expert Interview Method. *Perspectives on Politics*, 21(1), 277–287. doi:10.1017/S1537592722001116.
- van Tulder, R., Rodrigues, S. B., Mirza, H., & Sexsmith, K. (2021). The UN’s sustainable development goals: Can multinational enterprises lead the decade of action? *Journal of International Business Policy*, 4(1), 1. <https://doi.org/10.1057/s42214-020-00095-1>.
- van Tulder, R., & van Mil, E. (2023). *Principles of sustainable business: Frameworks for corporate action on the SDGs* (1st ed.). Routledge. <https://doi.org/10.4324/9781003098355>
- van Wegen, W. (2023). *Navigating climate change: Kiribati’s efforts to address sea-level rise*. Hydro International. <https://www.hydro-international.com/content/article/navigating-climate-change-kiribati-s-efforts-to-address-sea-level-rise>
- Vianna, G. M. S., Zeller, D., & Pauly, D. (2020). Fisheries and policy implications for human nutrition. *Current Environmental Health Reports*, 7(3), 161–169. <https://doi.org/10.1007/s40572-020-00286-1>.
- Vogt, R. A. (2019). Is the exclusive economic zone (EEZ) exclusively an economic regime? State practice, and implications for ocean governance in the Pacific region. *Sicherheit und Frieden (S+F) / Security and Peace*, 37(3), 140–148. <https://www.jstor.org/stable/27004583>
- von Soest, C. (2023). Why do we speak to experts? Reviving the strength of the expert interview method. *Perspectives on Politics*, 21(1), 277–287. <https://doi.org/10.1017/S1537592722001116>.
- Voyer, M., Schofield, C., Azmi, K., Warner, R., McIlgorm, A., & Quirk, G. (2018). Maritime security and the blue economy: Intersections and interdependencies in the Indian Ocean. *Journal of the Indian Ocean Region*, 14(1), 28–48. <https://doi.org/10.1080/19480881.2018.1418155>.
- Waiti, D., & Lorrenij, R. (2018). Sustainable management of deep sea mineral activities: A case study of the development of national regulatory frameworks for the Republic of the Marshall Islands. *Marine Policy*, 95, 388–393. <https://doi.org/10.1016/j.marpol.2017.03.025>.

- Wallis, J., Maima, K., & O'Dwyer, C. (2024). The 'Blue Pacific' strategic narrative: rhetorical action, acceptance, entrapment, and appropriation? *The Pacific Review*, 37(4), 797-824. <https://doi.org/10.1080/09512748.2023.2253377>.
- Western and Central Pacific Fisheries Commission (WCPFC). (2020). *Conservation and management measure to establish a list of vessels presumed to have carried out illegal, unreported and unregulated fishing activities in the WCPO*. <https://cmm.wcpfc.int/measure/cmm-2019-07>
- Western and Central Pacific Fisheries Commission (WCPFC). (2024). *Conservation and management measure on daily catch and effort reporting*. <https://cmm.wcpfc.int/measure/cmm-2022-06>
- Western and Central Pacific Fisheries Commission (WCPFC). (2025a). CMM 2024-02 – *Conservation and management measure for the monitoring, controlling and surveillance of Pacific bluefin tuna*. <https://cmm.wcpfc.int/measure/cmm-2024-02>
- Western and Central Pacific Fisheries Commission (WCPFC). (2025b). *Register of inspection vessels*. <https://www.wcpfc.int/register-inspection-vessels#144>
- Webb, J. (2020). Kiribati economic survey: Oceans of opportunity. *Asia & the Pacific Policy Studies*, 7(1), 5–26. <https://doi.org/10.1002/app5.297>.
- Welch, C., Paavilainen-Mäntymäki, E., Piekkari, R., & Plakoyiannaki, E. (2022). Reconciling theory and context: How the case study can set a new agenda for international business research. *Journal of International Business Studies*, 53(1), 4–26. <https://doi.org/10.1057/s41267-021-00484-5>.
- Welch, C., Piekkari, R., Plakoyiannaki, E., & Paavilainen-Mäntymäki, E. (2011). Theorising from case studies: Towards a pluralist future for international business research. *Journal of International Business Studies*, 42(5), 740–762. <https://doi.org/10.1057/jibs.2010.55>.
- Westerveld, L. (2019). *Kiribati tuna catch EEZ*. GRID-Arendal. <https://www.grida.no/resources/15091>
- Wexler, M. N. (2009). Exploring the moral dimensions of wicked problems. *International Journal of Sociology and Social Policy*, 29(9-10), 532-542. <https://doi.org/10.1108/01443330910986306>.
- Williams, P., & Ruaia, T. (2023). *Overview of tuna fisheries in the Western and Central Pacific Ocean, including economic conditions*. Western and Central Pacific Fisheries Commission. <https://meetings.wcpfc.int/node/21255>
- World Trade Organization. (2022, June 17). *Fisheries subsidies deal will contribute to sustainable blue economy: DG Okonjo-Iweala*. https://www.wto.org/english/news_e/spno_e/spno28_e.htm
- Wright, G., Rochette, J., Druel, E., & Gjerde, K. (2016). *The long and winding road continues: Towards a new agreement on high seas governance*. IDDRI.
- World Trade Organization (WTO). (2023). *Trade profile 2023 – Kiribati*. https://www.wto.org/english/res_e/publications_e/trade_profiles23_e.htm
- Xuande, F., & Yuting, G. (2021). An analysis of the tuna diplomacy between Pacific Island countries and EU – Take Kiribati as an example. *E3S Web of Conferences*, 251, 01071. <https://doi.org/10.1051/e3sconf/202125101071>.

- Yamamoto, L. (2020). Climate relocation and Indigenous culture preservation in the Pacific Islands. *Georgetown Journal of International Affairs*, 21, 150–157. <https://doi.org/10.1353/gia.2020.0003>.
- Yang, S., Wang, L., Fei, Y., Zhang, S., Yu, L., Zhang, H., Wang, F., Wu, Y., Wu, Z., Wang, W., Shi, J., Jiang, K., & Fan, W. (2024). Spatio-temporal variability of fishing habitat suitability to tuna purse seine fleet in the Western and Central Pacific Ocean. *Regional Studies in Marine Science*, 70, 103366. <https://doi.org/10.1016/j.rsma.2023.103366>.
- Yates, O. E. T., Groot, S., Manuela, S., & Neef, A. (2023). “There's so much more to that sinking island!” - Restorying migration from Kiribati and Tuvalu to Aotearoa New Zealand. *Journal of Community Psychology*, 51(3), 924–944. <https://doi.org/10.1002/jcop.22928>.
- Yuan, H., Chokroune, L., & Failler, P. (2024). Centring justice for labour in the new blue economy: Principles for applying emerging evidence and theoretical critiques to policy and practice. *Marine Policy*, 168(October), 106327. <https://doi.org/10.1016/j.marpol.2024.106327>.

Appendix A: Table 1 - Balance of coastal state and flag state interest

A1.1: FFA Members							Foreign fleet	Distant water	Catch in	Catch in	Catch in	GDP per
CCM	Average catch value 2016–2018 (US\$)						catch as a share of	catches as a share	national	national	distant waters	capita
	National waters (A)	National fleet (B)	Nat fleet in own waters (C)	Distant water catch by national fleet (B-C)	Foreign vessels in national waters (A-C)	Gross interest (A + B-C)	$\frac{(A-C)}{A}$	$\frac{(B-C)}{B}$	$\frac{(A-C)}{(A+B-C)}$	$\frac{(C)}{(A+B-C)}$	$\frac{(B-C)}{(A+B-C)}$	Current US\$ 2018
Australia (inc Norfolk Is)	19,053,190	20,166,329	19,043,607	1,122,722	9583	20,175,912	0.1%	5.6%	0.0%	94.4%	5.6%	57,305
Cook Islands	51,526,126	11,035,101	8,779,095	2,256,006	42,747,031	53,782,132	83.0%	20.4%	79.5%	16.3%	4.2%	20,354
Fiji	47,908,028	72,670,537	43,982,114	28,688,424	3,925,914	76,596,451	8.2%	39.5%	5.1%	57.4%	37.5%	6202
FSM	421,384,026	188,668,854	73,705,556	114,963,298	347,678,470	536,347,324	82.5%	60.9%	64.8%	13.7%	21.4%	3058
Kiribati	702,280,612	293,761,633	160,480,252	133,281,381	541,800,360	835,561,993	77.1%	45.4%	64.8%	19.2%	16.0%	1625
Marshall Islands	111,071,871	124,550,402	27,753,269	96,797,134	83,318,603	207,869,005	75.0%	77.7%	40.1%	13.4%	46.6%	3621
Nauru	207,817,861	5,022,771	33,195	4,989,576	207,784,666	212,807,437	100.0%	99.3%	97.6%	0.0%	2.3%	9030
New Zealand	13,821,633	19,640,924	13,821,633	5,819,291	0	19,640,924	0.0%	29.6%	0.0%	70.4%	29.6%	41,966
Niue	813,497	0	0	0	813,497	813,497	100.0%	-	100.0%	0.0%	0.0%	4193
PNG	675,097,480	531,816,326	312,187,725	219,628,602	362,909,755	894,726,081	53.8%	41.3%	40.6%	34.9%	24.5%	2723
Palau	57,840,175	15,083,270	15,083,270	0	42,756,905	57,840,175	73.9%	0.0%	73.9%	26.1%	0.0%	17,318
Samoa	10,315,068	9,300,535	5,662,758	3,637,777	4,652,310	13,952,846	45.1%	39.1%	33.3%	40.6%	26.1%	4392
Solomon Islands	306,461,224	105,853,584	79,076,115	26,777,468	227,385,109	333,238,692	74.2%	25.3%	68.2%	23.7%	8.0%	2163
Tokelau	51,103,630	166,778	166,778	0	50,936,852	51,103,630	99.7%	0.0%	99.7%	0.3%	0.0%	4193
Tonga	9,364,695	2,677,202	2,664,988	12,215	6,699,707	9,376,909	71.5%	0.5%	71.4%	28.4%	0.1%	4364
Tuvalu	165,332,057	15,352,357	4,308,840	11,043,516	161,023,217	176,375,573	97.4%	71.9%	91.3%	2.4%	6.3%	3701
Vanuatu	37,546,189	71,540,329	852,829	70,687,499	36,693,359	108,233,688	97.7%	98.8%	33.9%	0.8%	65.3%	3033

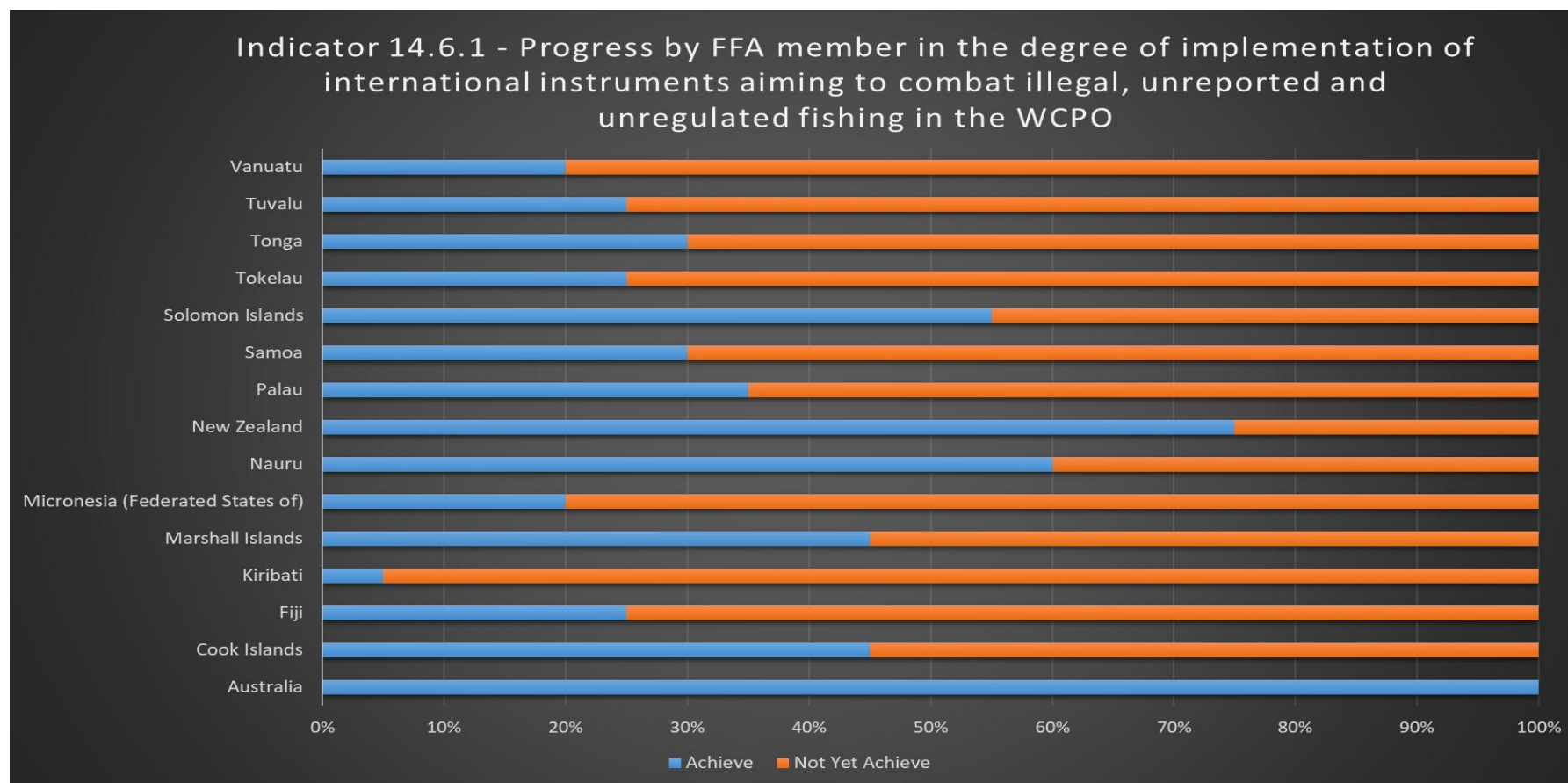
Note. Adapted from “Mapping interests in the tuna fisheries of the Western and Central Pacific Ocean” by K. Azmi and Q. Hanich, 2021, *Ocean & Coastal Management 2021 Vol. 212*, p. 12. Copyright 2021 by Elsevier Ltd.

Appendix B: Table 2 - WCPFC IUU Vessel List for 2025

Current name of vessel (previous names)	Current flag (previous flags)	Date first included on WCPFC IUU Vessel List	Flag State Registration Number/IMO Number	Call Sign (previous call signs)	Vessel Master (nationality)	Owner / beneficial owners (previous owners)	Notifying CCM	IUU activities
Neptune	unknown (Georgia)	10/12/2010	M-00545	unknown (4LOG)		Space Energy Enterprises Co. Ltd.	France	Fishing on the high seas of the WCPFC Convention Area without being on the WCPFC Record of Fishing Vessels (CMM 2007-03-para 3a)
Fu Lien No 1	unknown (Georgia)	10/12/2010	M-01432 IMO No 7355662	unknown (4LIN2)		Fu Lien Fishery Co., Georgia	United States	Is without nationality and harvested species covered by the WCPFC Convention in the Convention Area (CMM 2007-03, para 3h)
Yu Fong 168	unknown (Chinese Taipei)	11/12/2009		BJ4786	Mr Jang Faa Sheng (Chinese Taipei)	Chang Lin Pao-Chun, 161 Sanmin Rd., Liouciuo Township, Pingtung County 929, Chinese Taipei	Marshall Islands	Fishing in the Exclusive Economic Zone of the Republic of the Marshall Islands without permission and in contravention of Republic of the Marshall Islands' laws and regulations. (CMM 2007-03, para 3b)
Kuda Laut 03	Philippines	8/12/2023	Registry No. 12-0001812	DUM-4015	Alex L Cerina, Filipino	Tuna Explorers Incorporated	New Zealand	Fishing on the high seas of the WCPFC Convention Area (High Seas Pocket One) without being on the WCPFC Record of Fishing Vessels (CMM 2019-07-para 3a)

Note. Adapted from <https://www.wcpfc.int/wcpfc-iuu-vessel-list>.
Copyright 2025 by Western and Central Pacific Fisheries Commission.

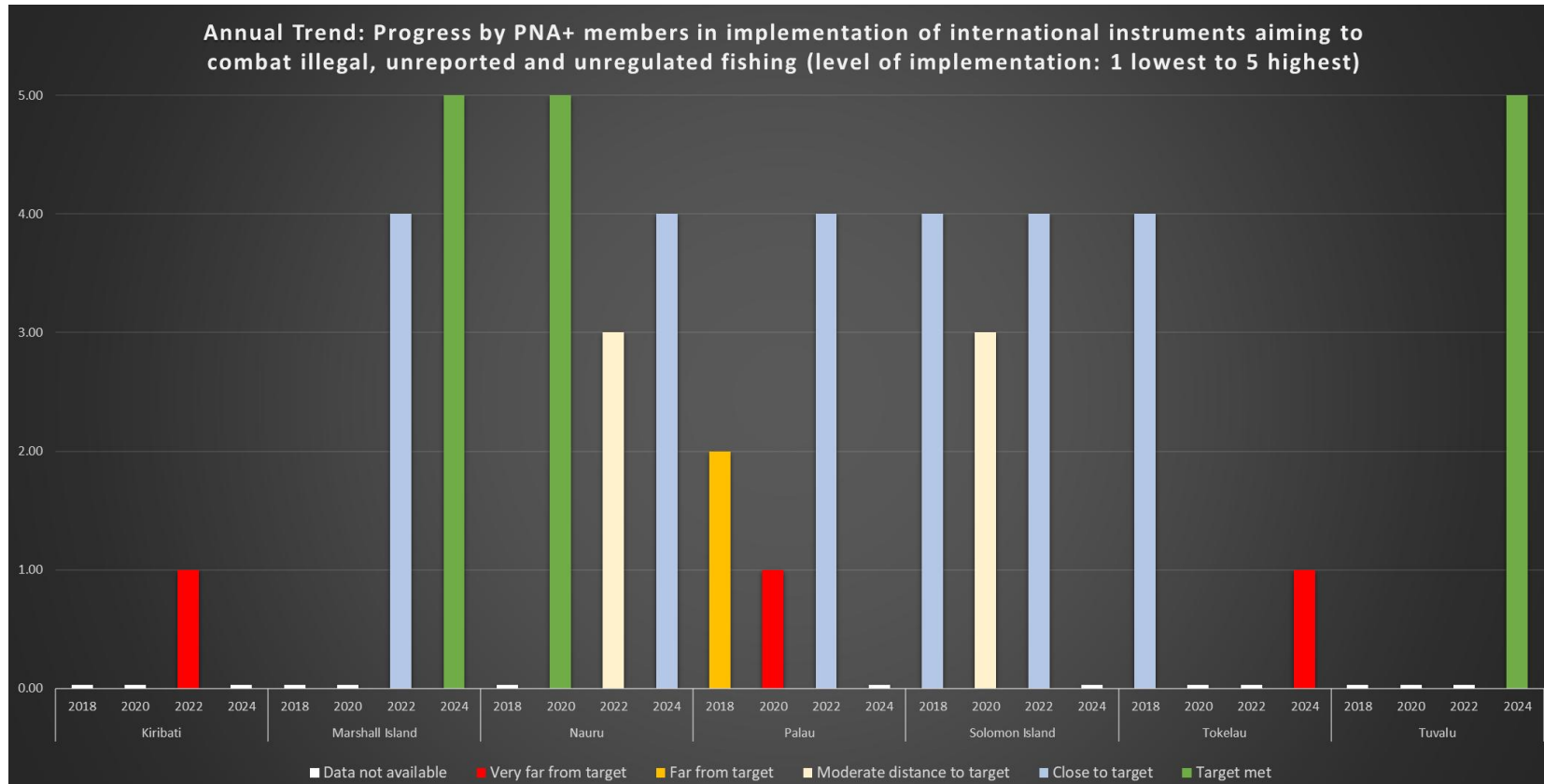
Appendix C: Figure 3 - FFA member progress



Note. Indicator 14.6.1 - Progress by FFA countries in the degree of implementation of international instruments aiming to combat illegal, unreported and unregulated fishing. From FAO, by FAODATA, 2025.

<https://www.fao.org/sustainable-development-goals-data-portal/data/indicators/1461-illegal-unreported-unregulated-fishing/en>

Appendix D: Figure 4 - Annual trend – Progress by PNA members



Note. Indicator 14.6.1 - Progress by PNA countries in the degree of implementation of international instruments aiming to combat illegal, unreported and unregulated fishing. From FAO, by FAODATA, 2025.

<https://www.fao.org/sustainable-development-goals-data-portal/data/indicators/1461-illegal-unreported-unregulated-fishing/en>

Appendix E: Table 3 - Journals used in this study from AUT library databases

Athour(s)	Year	Research Articles	Source Type	Publications	No. Articles	SiteScore	Highest Percentile	ABDC Ranking
Crespo, Guillermo Ortuño., Dunn, Daniel C., Reygondeau, Gabriel., Boerder, Kristina., Worm, Boris., Cheung, William., Tittensor, Derek P., Halpin, Patrick N.	2018	The environmental niche of the global high seas pelagic longline fleet	Journal	Science Advances	1	21.4	96%	N/A
McCauley, Douglas J., Jablonicky, Caroline., Allison, Edward H., Golden, Christopher D., Joyce, Francis H., Mayorga, Juan., Kroodsma, David.	2018	Wealthy countries dominate industrial fishing	Journal	Science Advances	1	21.4	96%	N/A
Hartmann, Simon., Lindner, Thomas., Müllner, Jakob., P	2022	Beyond the nation-state: Anchoring supranational institutions in international business research	Journal	Journal of International Business Studies	1	16.2	98%	A*
Welch, Catherine, Paavilainen-Mäntymäki, Eriikka., Piekkari, Rebecca., Plakoyiannaki, Emmanuella.	2022	Reconciling theory and context: How the case study can set a new agenda for international business research	Journal	Journal of International Business Studies	1	16.2	98%	A*
Hale, Thomas.	2020	Transnational Actors and Transnational Governance in Global Environmental Politics	Journal	Annual Review of Political Science	1	15.2	99%	A
Buckley, Peter J	2022	Navigating three vectors of power: Global strategy in a world of intense competition, aggressive nation states, and antagonistic civil society	Journal	Global Strategy Journal	1	14.2	95%	A
Buckley, Peter J.	2009	Internalisation thinking: From the multinational enterprise to the global factory	Journal	International Business Review	1	14.1	97%	A
Fletcher, Margaret., Zhao, Yang., Plakoyiannaki, Emmanuella., Buck, Trevor.	2018	Three Pathways to Case Selection in International Business: A Twenty-Year Review, Analysis and Synthesis	Journal	International Business Review	1	14.1	97%	A
Choudhary, Poonam., G, Venkata Subhash., Khade, Monika., Savant, Sandip., Musale, Amar., G, Raja Krishna Kumar., Chelliah, Meenakshi Sundaram., Dasgupta, Santanu.	2021	Empowering blue economy: From underrated ecosystem to sustainable industry	Journal	Journal of Environmental Management	1	13.7	95%	A
Berliner, Daniel., Prakash, Aseem	2014	The United Nations Global Compact: An Institutional Perspective	Journal	Journal of Business Ethics	1	12.8	99%	A
Rašković, Matevž	2022	International business policymaking for a “wicked” world	Journal	Journal of International Business Policy	1	10.1	89%	N/A
Van Tulder, Rob., Rodrigues, Suzana B., Mirza, Hafiz., Sexsmith, Kathleen.	2021	The UN's sustainable development goals: Can multinational enterprises lead the decade of action?	Journal	Journal of International Business Policy	1	10.1	89%	N/A
Newman, Abraham., Posner, Elliot.	2016	Transnational feedback, soft law, and preferences in global financial	Journal	Review of International Political Economy	1	9.2	98%	A
Azmi, Kamal., Hanich, Quentin	2021	Mapping interests in the tuna fisheries of the Western and Central Pacific Ocean	Journal	Ocean & Coastal Management	1	8.5	94%	N/A
Berliner, Daniel., Prakash, Aseem	2012	From norms to programs: The United Nations Global Compact and global	Journal	Regulation & Governance	1	7.8	98%	A
Haas, B., Azmi, K., Davis, R.	2024	Pacific tuna update: 20th Meeting of the Western and Central Pacific Fisheries Commission	Journal	Marine Policy	1	7.6	97%	A*
Keen, Meg R., Schwarz, Anne-Maree., Wini-Simeon, Lysa.,	2018	Towards defining the Blue Economy: Practical lessons from pacific ocean governance	Journal	Marine Policy	1	7.6	97%	A*
Rout, Matthew., Reid, John., Mika, Jason Paul., Whitehead, Jay., Gillies, Annemarie., Wiremu, Fiona., McLellan, Georgia., Ruha, Corey.	2024	Indigenising the blue economy in Aotearoa New Zealand	Journal	Marine Policy	1	7.6	97%	A*

Source: Data collected by the author on the 27th March 2025 from Scopus CiteScore (Elsevier. (n.d.) and Australian Business Dean Council (2022)

Sustainable Tuna Fishing in Small Island Developing States: Governance and Policies in the Kiribati Islands

Table 3: Continue

Athour(s)	Year	Research Articles	Source Type	Publications	No. Articles	SiteScore	Highest Percentile	ABDC Ranking
Singh, Gerald G., Cisneros-Montemayor, Andrés M., Swartz, Wilf., Cheung, William., Guy, J. Adam., Kenny, Tiff-Annie., McOwen, Chris J., Asch, Rebecca., Geffert, Jan Laurens., Wabnitz, Colette C. C., Sumaila, Rashid., Hanich, Quentin., Ota, Yoshitaka.	2018	A rapid assessment of co-benefits and trade-offs among Sustainable Development Goals	Journal	Marine Policy	1	7.6	97%	A*
Mallin, M. F.	2018	From sea-level rise to seabed grabbing: The political economy of climate change in Kiribati	Journal	Marine Policy	1	7.6	97%	A*
Bennett, Nathan James., Blythe, Jessica., White, Carole Sandrine., Campero, Cecilia.	2021	Blue growth and blue justice: Ten risks and solutions for the ocean economy	Journal	Marine Policy	1	7.6	97%	A*
Schutter, Marleen S., Hicks, Christina C., Phelps,	2021	The blue economy as a boundary object for hegemony across scales	Journal	Marine Policy	1	7.6	97%	A*
Haas, Bianca., McGee, Jeffrey., Fleming, Aysha.,	2020	Factors influencing the performance of regional fisheries management	Journal	Marine Policy	1	7.6	97%	A*
Ganapathiraju, Pramod., Pitcher, Tony J., Mantha, Gopikrishna.	2019	Estimates of illegal and unreported seafood imports to Japan	Journal	Marine Policy	1	7.6	97%	A*
Barclay, K., Cartwright, I.	2007	Governance of tuna industries: The key to economic viability and	Journal	Marine Policy	1	7.6	97%	A*
Bartley, Tim.	2018	Transnational Corporations and Global Governance	Journal	Annual Review of Sociology	1	7.6	97%	A*
Merino, Gorka., Barange, Manuel., Blanchard, Julia L., Harle, James., Holmes, Robert., Allen, Icarus., Allison, Edward H., Badjeck, Marie Caroline., Dulvy, Nicholas K., Holt, Jason., Jennings, Simon., Mullon, Christian., Rodwell, Lynda D.	2012	Can marine fisheries and aquaculture meet fish demand from a growing human population in a changing climate?	Journal	Global Environmental Change	1	7.6	97%	A*
Clark Howard, Brian.	2018	Blue growth: Stakeholder perspectives	Journal	Marine Policy	1	7.6	97%	A*
Duan, Xingyi., Zhao, Xiaonan., Zou, Marlène., Chang, Yen-Chiang	2024	Maritime laws and sustainable development of Blue Economy: Conference report	Journal	Marine Policy	1	7.6	97%	A*
Hassanali, Kahlil.	2020	CARICOM and the blue economy – Multiple understandings and their implications for global engagement	Journal	Marine Policy	1	7.6	97%	A*
Louey, Philippa.	2022	The Pacific blue economy: An instrument of political maneuver	Journal	Marine Policy	1	7.6	97%	A*
Lyons, Peci., Mynott, Sara., Melbourne-Thomas, Jess	2023	Enabling Indigenous innovations to re-centre social licence to operate in the Blue Economy	Journal	Marine Policy	1	7.6	97%	A*
Mallin, Marc-Andrej Felix., Stolz, Dennis C., Thompson, Benjamin S., Barbesgaard, Mads.	2019	In oceans we trust: Conservation, philanthropy, and the political economy of the Phoenix Islands Protected Area	Journal	Marine Policy	1	7.6	97%	A*
Waiti, D., Lorrenij, R.	2018	Sustainable management of deep sea mineral activities: a case study of the development of national regulatory frameworks for the Republic of the Marshall Islands	Journal	Marine Policy	1	7.6	97%	A*
Pegram, Tom.	2015	Global human rights governance and orchestration: National human rights institutions as intermediaries	Journal	European Journal of International Relations	1	6.6	95%	A
Persson, Åsa., Dzebo, Adis.	2019	Special issue: Exploring global and transnational governance of climate change adaptation	Journal	International Environmental Agreements: Politics, Law and Economics	1	6.0	96%	A
Pattberg, Philipp., Strippel, Johannes.	2008	Beyond the public and private divide: remapping transnational climate governance in the 21st century	Journal	International Environmental Agreements: Politics, Law and Economics	1	6.0	96%	A
Busby, Joshua.	2018	Warming World: Why Climate Change Matters More Than Anything Else	Journal	Foreign Affairs	1	4.8	90%	A*
Boussebaa, Mehdi.	2023	Decolonizing international business	Journal	Critical Perspectives on International Business	1	4.2	71%	B
Dingwerth, Klaus.	2008	Private Transnational Governance and the Developing World: A Comparative Perspective	Journal	International Studies Quarterly	1	4.1	87%	A
Andonova, Liliانا B., Hale, Thomas N., Roger, Charles B.	2017	National Policy and Transnational Governance of Climate Change: Substitutes or Complements?	Journal	International Studies Quarterly	1	4.1	87%	A
Lindley, Jade., Percy, Sarah., Techera, Erika.	2019	Illegal fishing and Australian security	Journal	Australian Journal of International Affairs	1	3.2	80%	A
O'Sullivan, Dominic.	2008	The Treaty of Waitangi in Contemporary New Zealand Politics	Journal	Australian Journal of Political Science	1	2.1	64%	A
Carden, Y. R.	2003	Solid Waste-level Rise on Atoll Nation States: A Less Publicised Environmental Issue in the Republic of Kiribati	Journal	Australasian Journal of Environmental Management	1	3.0	58%	A

Appendix F: Table 4: A Timeline of Pacific Island Countries in the Global Climate Regime

Period	Key Moments
<p>1985–90: Framing the Problem Pacific Islands help to frame global warming as an urgent crisis. Sea level rise poses an existential threat for atoll islands. Island states form an important global coalition – AOSIS – to lobby for action at the UN. Australia initially works with the Pacific region, and positions as a climate leader on the global stage.</p>	<p>1979: First World Climate Conference 1988: Toronto Conference; Intergovernmental Panel on Climate Change formed; First UNGA resolution on climate change; South Pacific Forum leaders first discuss climate change 1989: Small States Conference on Sea Level Rise (Malé); Intergovernmental Meeting on Sea Level Rise in the South Pacific (Majuro) 1990: Second World Climate Conference; IPCC first assessment report; Alliance of Small Island States (AOSIS) formed</p>
<p>1991–7: Shaping the Global Response Pacific Islands play a key role in negotiation of the UNFCCC and subsequent Kyoto Protocol, which requires emission reductions from developed countries first. Australia reassesses its approach and seeks to minimize obligations to reduce emissions.</p>	<p>1992: UN Climate Change Convention (UNFCCC) 1995: COP1; AOSIS proposes a binding protocol to reduce emissions 1996: IPCC second assessment report 1997: South Pacific Forum issues first standalone leaders’ statement on climate in Rarotonga 1997: Kyoto Protocol</p>
<p>1998–2009: Pressing for Action Pacific Islands continue to press major powers to take action on mitigation, and increasingly on adaptation as well. Global action stalls as United States and Australia refuse to ratify Kyoto Protocol. Australia’s position makes for an ‘uncomfortable’ decade of regional relations with island states. Pacific Islands lobby UN for recognition of climate as a security threat. Talks for a post-Kyoto climate treaty collapse in Copenhagen.</p>	<p>2001: US refuses to ratify Kyoto; IPCC third assessment report 2005: Kyoto enters force; Montreal COP agreement to negotiate second period of Kyoto commitments; Pacific Islands Framework for Action on Climate Change (PIFACC) 2007: IPCC fourth assessment report; Bali Plan of Action launches process for post-Kyoto treaty 2008: Niue Declaration on Climate Change 2009: Copenhagen climate summit; Pacific Islands Forum issues ‘Call to Action on Climate Change’ in Cairns; UN passes resolution on security implications of climate change (proposed by Pacific states)</p>
<p>2010–15: Securing a New Global Agreement Pacific Island states work with major powers including the EU and the United</p>	<p>2009: Fiji suspended from the Pacific Islands Forum 2013: Pacific Islands Forum issues Majuro Declaration for Climate Leadership; Pacific</p>

States to secure the Paris Agreement. Pacific Islands shape negotiations by pressing for a global temperature limit of 1.5°C and stitching together a ‘High Ambition Coalition’. Australia refuses to back 1.5°C target. Regional differences stoke tensions and fuel emergence of a ‘New Pacific Diplomacy’.

2016–23: The Age of Consequences

Pacific Islands bolster the UN climate regime when the United States (under President Trump) withdraws from Paris. By 2021, climate moves to centre stage in global geopolitics as US returns to the Paris Agreement and major powers strengthen climate targets. Australia isolated as countries commit new climate targets, although a change of government in 2022 sees a shift closer to international consensus. Impacts of climate change increasingly evident as Pacific struck by a series of severe cyclones. Australia is also devastated by unprecedented bushfires and floods, while the Great Barrier Reef is hit by multiple bleaching events.

Islands Development Forum formed
2014: IPCC fifth assessment report
2015: Paris Agreement; Suva Declaration on Climate Change; Port Moresby Declaration on Climate Change; High Ambition Coalition formed (led by the Marshall Islands)

2016: Framework for Resilient Development in the Pacific (FRDP)

2017: US withdraws from Paris Agreement; Fiji president of COP23

2018: IPCC special report on 1.5°C of warming; Pacific Islands Forum issues Boe Declaration on Regional Security

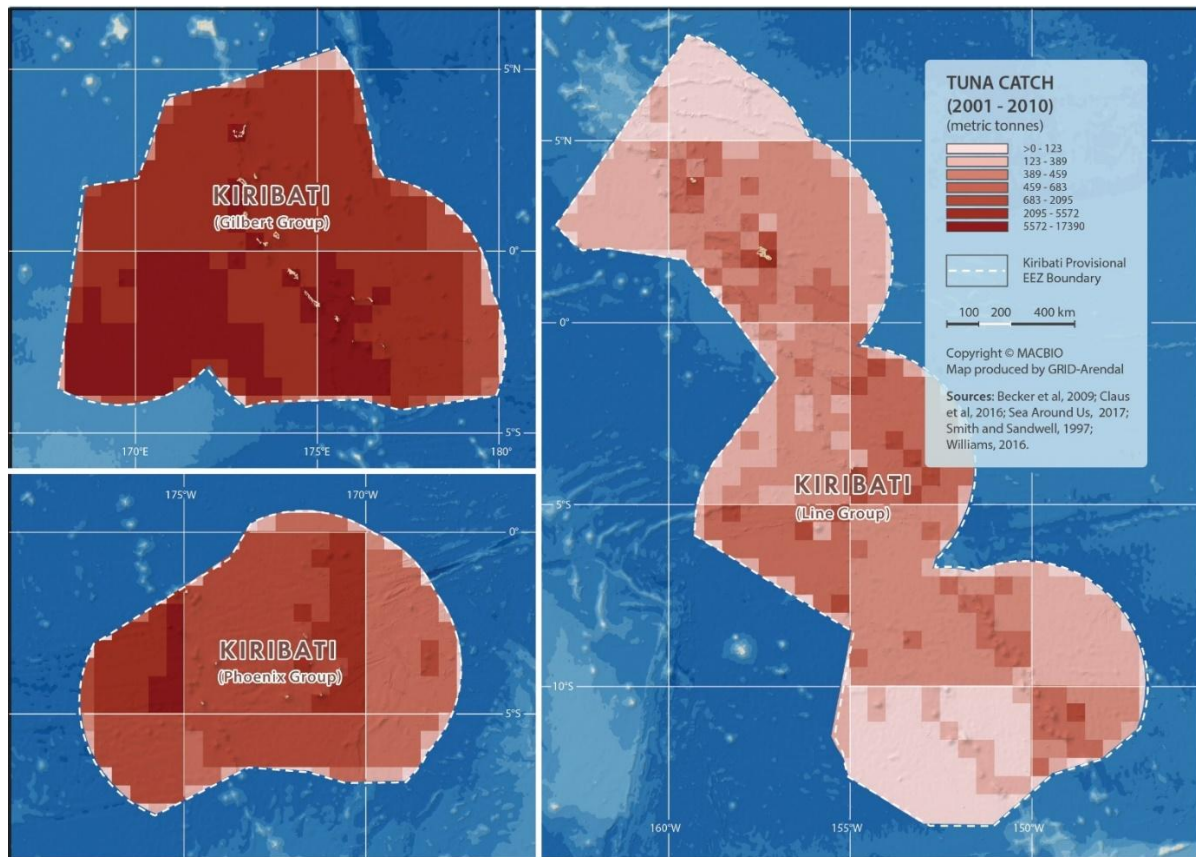
2019: Pacific Islands Forum issues Kainaki II Declaration for Urgent Climate Change Action Now

2021: US returns to Paris Agreement; At COP26 major powers revise Paris targets and commit to net-zero emissions by mid-century

2022: IPCC sixth assessment report released; Pacific Islands Forum declares a Pacific Climate Emergency

Note. Adapted from “A History of Pacific Climate Diplomacy” by W. Morgan., S. G Carter and F. Manoa, 2024, *Journal of Pacific History*, 59:3, 353-374. pp. 355-356. Copyright 2024 by Informa UK Limited, trading as Taylor & Francis.

Appendix G: Figure 5 - Kiribati Tuna EEZ



Note. Kiribati Tuna Catch Exclusive Economic Zone. From GRID-Arendal, by L Westerveld, 2019. (<https://www.grida.no/resources/15091>).

Appendix H: Table 5 - Coastal state balancing of interest across species

A2.1: FFA Members	Average catch value 2016 to 2018				Balance of coastal state interests across species			
	All gear types (US\$)				As a share of the four main species			
Coastal CCM	SKJ	YFT	BET	ALB	SKJ %	YFT %	BET %	ALB %
Australia (includes Norfolk Island)	12,032	12,025,297	4,411,259	2,604,602	0.1	63.1	23.2	13.7
Cook Islands	25,743,594	10,692,599	4,394,337	10,695,596	50.0	20.8	8.5	20.8
Fiji	1,628,735	22,283,991	4,780,211	19,215,090	3.4	46.5	10.0	40.1
FSM	299,711,819	87,343,029	33,973,005	356,174	71.1	20.7	8.1	0.1
*Kiribati	492,028,555	145,443,778	59,743,728	5,064,552	70.1	20.7	8.5	0.7
*Marshall Islands	62,179,368	25,414,902	23,192,794	284,808	56.0	22.9	20.9	0.3
*Nauru	153,148,576	48,585,705	6,083,512	68	73.7	23.4	2.9	0.0
New Zealand	5,300,567	229,478	1,193,809	7,097,779	38.3	1.7	8.6	51.4
Niue	10,806	156,988	78,146	567,557	1.3	19.3	9.6	69.8
*PNG	378,364,256	272,450,771	20,360,264	3,922,189	56.0	40.4	3.0	0.6
*Palau	8,048,687	27,430,086	22,195,110	166,293	13.9	47.4	38.4	0.3
Samoa	1,036,157	3,549,065	778,469	4,951,377	10.0	34.4	7.5	48.0
*Solomon Islands	139,223,962	126,379,688	23,133,407	17,724,167	45.4	41.2	7.5	5.8
*Tokelau	37,136,072	7,567,634	3,018,054	3,381,869	72.7	14.8	5.9	6.6
Tonga	416,572	5,448,859	905,984	2,593,279	4.4	58.2	9.7	27.7
*Tuvalu	116,409,063	31,153,652	13,794,585	3,974,756	70.4	18.8	8.3	2.4
Vanuatu	295,094	14,615,241	2,549,680	20,086,173	0.8	38.9	6.8	53.5

*Parties to the Nauru Agreement (PNA+) members

Note. Adapted from “Mapping interests in the tuna fisheries of the Western and Central Pacific Ocean” by K. Azmi and Q. Hanich, 2021, *Ocean & Coastal Management 2021 Vol. 212*, p. 13. Copyright 2021 by Elsevier Ltd.

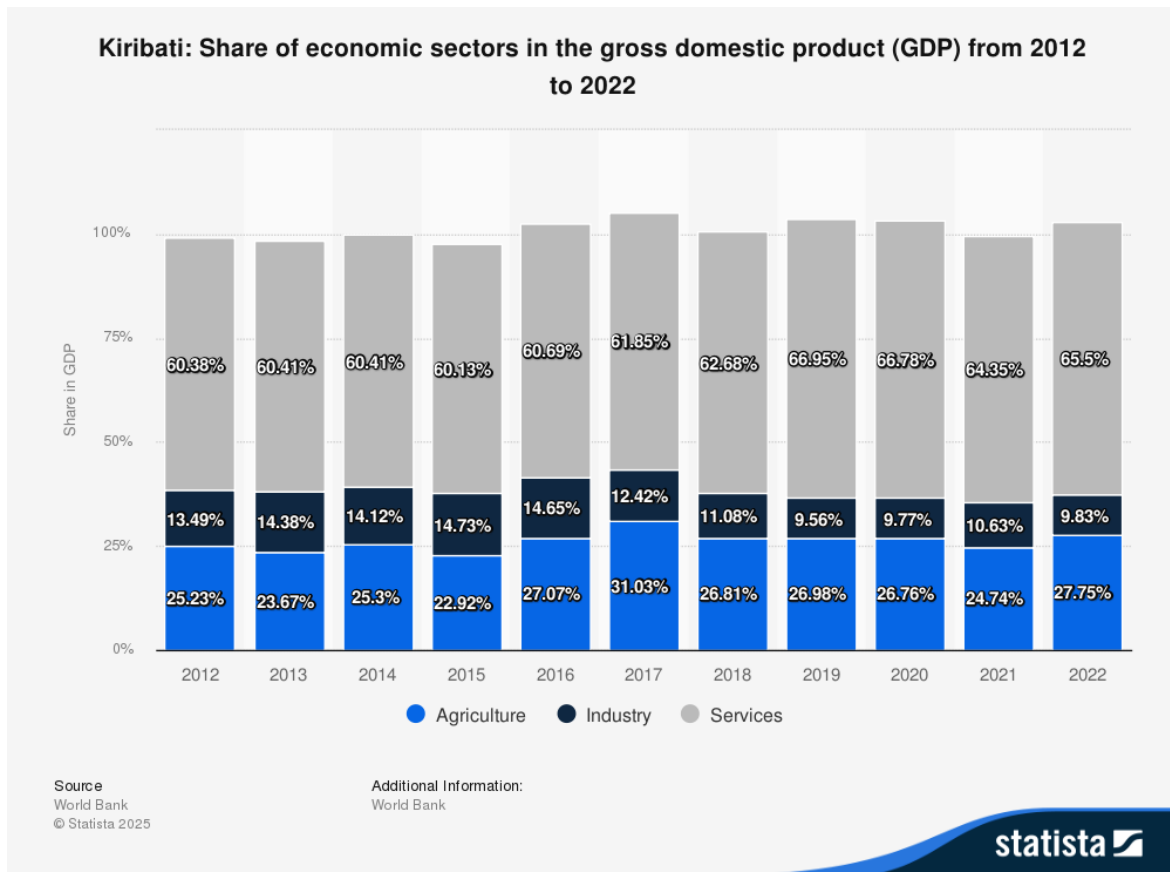
Appendix I: Table 6 - Vessel statistics operating in Kiribati's

EEZ

Vessel statistics	Purse seine	Longline	Pole and line
Offshore vessels authorized in Kiribati EEZ			
Total number of registered offshore vessels	171 (2007) 195 (2011)	160 (2007) 256 (2011)	6 (2007) 4 (2011)
Vessel length (m)	62-107	24-53	44
Flagged to Kiribati			
Foreign-owned or joint-ventured vessels (#)	9	4	1
Nationalities of vessel owner	Japan, Republic of Korea, Spain	Taiwan	Japan
DWFN			
Number of foreign-owned vessels (#)	106	252	3
Nationalities of vessel owner and number of vessels (#)	USA (37) Japan (35) Republic of Korea (28) Taiwan (26) Ecuador (7) Spain/EU (4) New Zealand (3) El Salvador (2) China (1)	Republic of Korea (112) China (75) Taiwan (48) Japan (9) Vanuatu (8) Fiji (0)	Japan (3)
FSM arrangement			
FSMA vessels (#)	46	–	–
Nationality of vessel owner and number of vessels (#)	Vanuatu (17) PNG (11) Marshall Islands (11) FSM (6) Tuvalu (1)		
US treaty			
US treaty vessels (#)	37	–	–
Source: Gillett 2009; Banks 2012; WCPFC 2012.			

Note. Adapted from “Fish for the future: Fisheries development and food security for Kiribati in an era of global climate change” by B. Cambell and Q. Hanich, 2014, *WorldFish Project Report: 2014-47*. p. 10. Copyright 2014 by WorldFish.

Appendix J: Figure 6 - Kiribati's share of economic sectors in the GDP 2012-2022



Note. This statistic shows the share of economic sectors in the gross domestic product (GDP) in Kiribati from 2012 to 2022. From Statista, by A. O'Neill, 2025.
(<https://www.statista.com/statistics/529156/share-of-economic-sectors-in-the-gdp-in-kiribati/>)