From Vulnerability to Viability in Small-Scale Fisheries: A Thematic Synthesis on Justice, Knowledge, and the Making of Transition

by

Shahriyer Hossain Shetu

A thesis

presented to the University of Waterloo

in fulfilment of the

thesis requirement for the degree of

Master of Environmental Studies

in

Sustainability Management - Water

Waterloo, Ontario, Canada, 2026

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Author's Declaration

I hereby declare that I am the sole author of this thesis. This is a true copy of the thesis, including any required final revisions, as accepted by my examiners.

I understand that my thesis may be made electronically available to the public.

Abstract

Small-scale fisheries (SSF) sustain the livelihoods, food security, and cultural identities of approximately 500 million people globally, yet they face profound and compounding vulnerabilities arising from climate change, colonial dispossession, institutional exclusion, and the displacement pressures of an expanding blue economy. Despite their global significance, no systematic synthesis of the knowledge produced through the V2V Global Partnership Thematic Webinar Series has previously been conducted, leaving five years of transdisciplinary expert discourse inaccessible as a coherent scholarly contribution. This qualitative study addresses that gap through a reflexive thematic analysis of all 59 V2V thematic webinar sessions spanning January 2021 to December 2025, conducted within a constructivist paradigm and guided by an original tri-layered conceptual framework called the V2V Transition Ecosystem, which integrates the V2V vulnerability-to-viability core axis, the blue justice evaluative lens, and social-ecological systems theory. The analysis identified 74 codes across three research questions, organized into Core, Emerging, and New classifications and tracked temporally across five years. Five key findings emerge: the V2V webinar series documents a paradigmatic shift from vulnerability management to justice assertion; the five vulnerability types present across all five years are structural features of the global political economy of fisheries rather than developmental deficits; the eight Core transitional pathways are all fundamentally social, political, and relational rather than technical, and successful transitions consistently require multiple reinforcing pathways operating simultaneously; most theoretically consequential, the integrated analysis confirms a justice-viability nexus in which justice and viability are mutually constitutive, with every major vulnerability corresponding to a specific justice failure and every major pathway operating through a specific justice mechanism; and the rate of new thematic content declined sharply by 2025,

suggesting that within the five-year period studied, the series had converged on a stable core conceptual framework for understanding SSF transitions, a pattern this thesis interprets as a feature of the period analyzed rather than a claim about the long-term trajectory of an ongoing knowledge platform. This thesis advances three principal theoretical contributions: the V2V Transition Ecosystem, an original tri-layered framework integrating the vulnerability-to-viability axis, the blue justice lens, and social-ecological systems theory; an original typology of five SSF vulnerability-viability transition contexts mapping specific vulnerability configurations to effective pathway combinations; and the justice-viability nexus, demonstrating that justice and viability are mutually constitutive rather than separate objectives - with direct implications for SSF policymakers, development organizations, community organizations, and international governance bodies seeking to support just and durable SSF transitions from vulnerability to viability.

Keywords: *Small-Scale Fisheries; Vulnerability to Viability; Blue Justice; Reflexive Thematic Analysis; Social-Ecological Systems; Transitional Pathways; Knowledge Commons; V2V Global Partnership*

Acknowledgements

This thesis would not exist without the guidance, patience, and intellectual generosity of my supervisor, Dr. Prateep Nayak. He gave me far more than an academic opportunity. His support and care went well beyond the boundaries of supervision - checking in on how I was doing, not just how my thesis was progressing, which meant everything to someone who arrived in Canada as an international student with no one around. He was there when I needed him most, even during the stretches when I went quiet for days and he could have given up on me. He introduced me to the world of small-scale fisheries governance, trusted me with the V2V Global Partnership knowledge corpus, and challenged me to think more rigorously, more honestly, and more ambitiously than I believed I could. Working with him has been nothing less than a privilege, and I am deeply grateful for everything he has taught me and shown me.

I am sincerely grateful to my committee members, Dr. Ruyel Miah, and Dr. Jeremy Pittman, for their thoughtful engagement with this work. I would also like to acknowledge Professor Zachary Folger-Laronde, Professor Goretty Dias, and Professor Jason Thistlethwaite, whose courses helped me develop the research skills and conceptual foundations that made this thesis possible.

I am also deeply grateful to Dr. Haseeb Irfanullah, whose encouragement, guidance, and kindness reached me whenever I needed direction. Your support has meant more than I can properly express, and I am forever grateful for it. I also want to thank Dr. Samiya Selim, Tahura ma'am, and everyone from CSD for pushing me to pursue this goal and believing in me before I fully believed in myself.

I want to extend my heartfelt thanks to Ruyel bhai, Tarin apu, and Sabrina apu for the care and warmth you offered at moments when I needed it most.

To the friends I was lucky enough to find after arriving in a country I knew nothing about - Karlyn, Sid, Fernanda, Shubhi, Geetam, Santi, Karen, Kate, Emily, Sumaita, Jenny, Estefania, Noor, and Harshita - this journey became a hundred times more beautiful because of you. Thank you for accepting me, for pulling me into those confusing card games and those incredibly fun volleyball matches, and for making Waterloo feel like home.

To Sanzida Alam - the sister I found without looking for one - thank you for feeding me, accepting me exactly as I am, and never giving up on us even through the unreasonable arguments about things that did not matter. And to Rudransh Choudhary, the younger brother I gained on this side of the world - thank you for all the brotherly support and the fun times that came with it. You made the hardest parts of this journey bearable

To my family - my loving sister, Fatema Yesmin Oishe, you are the best thing in my corner and I am the luckiest brother in the world to have you. To my mother, whose prayers crossed every ocean and whose belief in me never wavered even through the pain of the distance between us - thank you for bearing that distance so I could pursue this. And to my father - everything I have achieved and everything I will yet achieve carries your name in it. Your trust, your love, your prayers, and your belief in me made all of this possible. Nothing was, and nothing will ever be, possible without you: My Abbu, Ammu, and Oishe.

Dedication

For my father, Md. Delowar Hossain,

who was there when this journey began but could not see how it ended.

This is for you.

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Statement of Positionality

Reflexive thematic analysis requires the researcher to reflect explicitly on how their positionality shapes the research (Braun and Clarke, 2022). Positionality refers to the social, cultural, institutional, and experiential location of the researcher and the ways in which this location influences what the researcher attends to, how they interpret data, and what knowledge they are able to produce (Holmes, 2020).

As a Masters student embedded within the V2V Global Partnership at the University of Waterloo, the researcher occupies a position of proximity to the institutional context that produced the data. This proximity provides contextual knowledge that enriches interpretation but may also create a tendency toward favorable reading of the partnership's contributions. The researcher has sought throughout to attend equally to all speakers, geographic contexts, and thematic tensions represented in the data, including those that point to gaps or silences in the webinar series.

The researcher is also a student from Bangladesh, a country that figures prominently in the V2V webinar series through discussions of coastal livelihoods, climate vulnerability, and blue economy development. This personal connection may have shaped attentiveness to certain themes, and this is acknowledged as a limitation of the study.

Finally, the researcher acknowledges that AI-assisted tools were used in the processing and organization of the webinar transcripts to facilitate engagement with the large data corpus. However, all codes and themes were critically reviewed, refined, and validated by the researcher against the research questions and the theoretical framework at every stage of the analysis. This transparent acknowledgment is consistent with the reflexive commitments of this

study and with the University of Waterloo's guidance on the use of generative AI in graduate research.

CHAPTER ONE

Introduction

1.1 Setting the Scene: The Paradox of SSF

Small-scale fisheries are simultaneously indispensable and invisible. They sustain the livelihoods, food security, and cultural identities of hundreds of millions of people across Africa, Asia, Latin America, and the Caribbean, yet they remain chronically undercounted, undervalued, and underrepresented in the governance systems that determine their futures. The Food and Agriculture Organization of the United Nations (FAO, 2015) estimates that small-scale fisheries employ over 90 percent of the world's capture fishers and fish workers, the substantial majority of whom live in low- and middle-income countries with limited access to formal social protection, legal recognition, or political voice. The Illuminating Hidden Harvest initiative, a landmark 58-country study, found that small-scale fisheries support approximately 500 million people globally, engage 45 million women, and generate an estimated 77 billion USD in value annually, most of which remains invisible to official data systems and excluded from mainstream economic accounting (Franz et al., 2023).

Yet the invisibility of small-scale fisheries in official statistics and policy frameworks is matched by their acute visibility in the landscape of vulnerability. Climate change is altering fish distribution, increasing the frequency and intensity of extreme weather events, and accelerating the degradation of coastal and inland ecosystems on which SSF communities depend (Allison et al., 2009; Badjeck et al., 2010). Institutional marginalization, colonial legacy exclusion, and governance failures leave SSF communities without formal recognition, secure tenure rights, or meaningful participation in the governance processes that determine their futures (Jentoft et al., 2011; Chuenpagdee and Jentoft, 2018). The expansion of the blue economy, broadly understood

as the sustainable use of ocean resources for economic growth, introduces new and underappreciated displacement risks through ocean grabbing, marine spatial exclusion, and the systematic prioritization of large-scale marine industrial development over small-scale community uses (Blythe et al., 2022). The result is a profound paradox: communities whose contributions to global food security, nutrition, and cultural heritage are immense face structural conditions that make their continued existence precarious.

This paradox, between the indispensability of SSF and the structural conditions of their precarity, is the organizing tension of this thesis. It is a paradox that demands not merely description but explanation, and not merely explanation but a coherent framework for understanding how SSF communities can transition from vulnerability to viability in ways that are ecologically sustainable, economically equitable, and politically just. This study addresses that demand through a systematic thematic analysis of the V2V Global Partnership thematic webinar series, a unique five-year archive of transdisciplinary expert discourse on SSF vulnerability and viability that has not previously been subjected to systematic scholarly synthesis.

1.2 Background and Context

1.2.1 Small-Scale Fisheries: Significance and Scope

Small-scale fisheries are defined by the FAO (2015) as a diverse subsector of the fisheries sector using relatively small fishing vessels, low levels of capital investment, and relatively low-technology fishing methods, with a primary objective of supplying fish for local and domestic consumption. This definition encompasses an extraordinarily diverse range of fishing practices, from artisanal marine fishing along West African coasts to inland river and lake fisheries in South Asia to reef fishing in the Caribbean, and from subsistence fishing that provides the primary source

of household nutrition to commercially oriented fishing that supplies urban and export markets. What unites this diversity is the structural position of SSF within global fisheries governance: they are consistently marginalized relative to industrial fisheries in terms of resource allocation, policy representation, legal recognition, and access to institutional support (Jentoft et al., 2011; FAO, 2015).

The global significance of SSF has been progressively documented through landmark studies including the Illuminating Hidden Harvest initiative (Franz et al., 2023), the World Bank's Hidden Harvest report (World Bank, 2012), and the FAO's State of World Fisheries and Aquaculture series. Together, these documents establish that small-scale fisheries are not a peripheral or residual subsector of global fisheries but a foundational pillar of global food security, nutrition, and coastal livelihoods whose contribution is systematically underestimated by official statistics that count boats and tonnage rather than livelihoods and nutrition (Allison et al., 2009). The recognition of SSF's significance has driven growing international policy attention, culminating in the endorsement of the FAO Voluntary Guidelines for Securing Sustainable Small-Scale Fisheries by the Committee on Fisheries in 2015, the first internationally agreed framework specifically designed to address the governance, livelihood, and rights dimensions of SSF at global scale (FAO, 2015).

1.2.2 The Vulnerability to Viability Imperative

Despite growing international recognition of SSF's significance, the gap between policy aspiration and community reality remains vast. SSF communities globally continue to face multidimensional and interconnected vulnerabilities that threaten not merely their livelihoods but their cultural integrity, ecological knowledge, and social cohesion. Vulnerability in SSF has been

defined as the susceptibility of fishing communities to harm due to their exposure to environmental, economic, and institutional stressors, their sensitivity to those stressors, and their limited adaptive capacity to respond (Allison et al., 2009; Islam and Chuenpagdee, 2022). These vulnerabilities are not natural conditions or inevitable consequences of fishing as a livelihood: they are the products of specific historical, political, and economic arrangements that systematically disadvantage SSF in relation to industrial fisheries, coastal development interests, and state bureaucracies (Satizabal et al., 2020; Bene, 2009).

The concept of viability, which this thesis takes as its organizing aspiration, goes beyond resilience and adaptive capacity to encompass the positive goal of thriving: maintaining livelihoods, cultural identity, ecological health, and governance participation for current and future generations in ways that are ecologically sustainable, economically equitable, and politically just (Nayak and Berkes, 2014). The transition from vulnerability to viability is not a linear developmental progression but a complex, political, and often contested process through which communities assert their rights, build their capacities, transform the governance arrangements that constrain them, and forge new relationships with the ecological systems on which they depend (Dias et al., 2023a). Understanding this transition, including what enables it, what impedes it, and what it looks like across diverse geographic and institutional contexts, is one of the most pressing challenges in contemporary SSF scholarship and governance.

1.2.3 The V2V Global Partnership and Its Webinar Series

The Vulnerability to Viability (V2V) Global Partnership is a transdisciplinary research, knowledge, and action network hosted at the University of Waterloo, Canada, with over 100 members from Africa, Asia, Latin America, the Caribbean, and internationally. Its mission is to

support SSF communities in transitioning from vulnerability to viability across ecological, economic, social, cultural, and institutional dimensions, through research, knowledge mobilization, capacity building, and policy engagement (Nayak, 2020). Since January 2021, the V2V partnership has hosted a monthly thematic webinar series that brings together leading scholars, practitioners, policymakers, and community representatives to exchange knowledge on SSF governance, livelihoods, blue justice, climate adaptation, and sustainable transitions.

As of December 2025, the V2V thematic webinar series comprises 59 sessions spanning five years, featuring speakers from every major SSF region globally, covering topics ranging from blue justice and decolonial governance to gender equity, resilience, inland fisheries, climate loss and damage, marine bioregionalism, and corporate sustainability. The series is publicly available through the V2V website and YouTube channel, making it one of the most accessible and geographically inclusive archives of expert SSF discourse available to the global research and practitioner community. However, despite its richness and breadth, the insights generated through the series have not previously been subjected to systematic scholarly synthesis, a significant gap that limits both the accessibility of this accumulated knowledge and its contribution to the broader SSF literature.

1.3 Research Problem

Small-scale fisheries stand at a crossroads. The challenges they face, deepening climate vulnerability, accelerating blue economy displacement, persistent colonial governance legacies, and the systematic denial of justice to fishing communities worldwide, are not merely intensifying in the present. They are reshaping the structural conditions under which SSF communities will live, fish, and govern themselves over the coming decade in ways that existing scholarship has not

yet adequately mapped. Climate change is altering ocean temperatures, shifting fish distributions, and increasing the frequency of disasters that overwhelm SSF adaptive capacity faster than governance frameworks can respond (Allison et al., 2009; Badjeck et al., 2010). Blue economy development is opening new frontiers of ocean enclosure, displacing artisanal fishing communities from territories they have historically used and governed (Blythe et al., 2022). Colonial exclusion, far from being a historical legacy that diminishes with time, continues to structure the legal and institutional landscape within which SSF communities must assert their rights (Satizabal et al., 2020). And the justice frameworks needed to evaluate whether SSF transitions are happening on equitable terms, recognizing community rights, enabling meaningful participation, and distributing benefits fairly, remain undertheorized and inadequately operationalized across the governance contexts in which communities actually live (Jentoft et al., 2022; Schlosberg, 2007).

The result is a critical long-term knowledge gap. The existing literature on SSF contains important contributions on specific stressors and on frameworks for resilience and sustainable livelihoods such as the Sustainable Livelihoods Approach (Chambers and Conway, 1992) and social-ecological systems theory (Ostrom, 2009; Berkes, 2012). Yet these contributions remain fragmented by discipline, region, and thematic focus. The concept of transition from vulnerability to viability as an integrated, long-term process has not been examined in a way that simultaneously bridges governance reform, community agency, knowledge co-production, justice frameworks, and ecological stewardship (Nayak and Berkes, 2014; Dias et al., 2023a). The field lacks a comprehensive, integrated synthesis of what the SSF challenges of the next decade look like, what vulnerabilities are driving them, and what pathways toward viability are most necessary and most promising, a gap that creates a significant barrier to the long-term understanding that policymakers, practitioners, and communities urgently need.

This study addresses that gap. The V2V Global Partnership thematic webinar series, the most geographically comprehensive, thematically rich, and longitudinally sustained forum of transdisciplinary SSF expert discourse available, constitutes a unique window onto precisely these questions. Across five years and 59 sessions, the series has gathered leading SSF scholars, practitioners, policymakers, and advocates to collectively examine the challenges and opportunities facing fishing communities in transition. It has generated shared conceptual vocabulary, empirical evidence from diverse case studies, theoretical frameworks, and policy-oriented insights about what SSF transitions from vulnerability to viability require over the long term. But this accumulated knowledge, five years of collective expert understanding about the future of SSF, has remained distributed across individual sessions, never subjected to the systematic synthesis that would convert it into a coherent, actionable body of scholarly contribution. This study conducts that synthesis for the first time, bringing the collective insight of 59 sessions of global SSF expertise to bear on the governance challenges, vulnerability patterns, and transitional pathways that will define the sector's trajectory over the decade ahead.

1.4 Purpose of the Study

The purpose of this qualitative study is to address the long-term knowledge gap in SSF governance by synthesizing the theoretical, practical, and policy insights emerging from the V2V Global Partnership thematic webinar series through reflexive thematic analysis of all 59 webinar sessions spanning January 2021 to December 2025. The study pursues three interrelated objectives. First, it identifies the key themes and big ideas that have emerged through the lens of global experts and stakeholders across five years of V2V webinar discourse. Second, it documents the types of vulnerabilities faced by SSF communities as identified across the series and maps their

driving factors. Third, it characterizes the transitional pathways and processes proposed and documented in the webinars as means of moving SSF from vulnerability to viability. In doing so, the study converts five years of collective expert understanding into a structured, academically rigorous synthesis that advances long-term understanding of SSF challenges, vulnerabilities, and pathways to viability, and provides the evidence base that scholars, policymakers, and practitioners need to navigate the governance demands of the decade ahead.

The study also makes two original theoretical contributions. First, it develops a novel typology of five SSF vulnerability-viability transition contexts, derived inductively from the integrated analysis of vulnerability types and transitional pathways across all five years of the series. Second, it theorizes the V2V webinar series as a knowledge commons in the tradition of Ostrom (1990; 2009), arguing that the series constitutes not merely a platform for knowledge sharing but a collectively governed, openly accessible resource that produces public good knowledge about SSF governance in ways that conventional academic publishing cannot replicate.

1.5 Research Questions

The study is organized around three research questions, each corresponding to a core dimension of the vulnerability-to-viability transition and each connected to a specific layer of the tri-layered conceptual framework developed in Chapter Two. Table 1 presents the research questions alongside their analytical focus and framework alignment.

Table 1

Research Questions, Analytical Focus, and Conceptual Framework Alignment

RQ	Research Question	Analytical Focus	Framework Layer

RQ1	**What key themes and big ideas have emerged from V2V Global Partnership webinar discussions that enable the transition from vulnerability to viability in small-scale fisheries?**	Big ideas, conceptual frameworks, thematic patterns	SES context and Blue Justice lens
RQ2	**What types of vulnerabilities do SSF communities face, and what are the driving factors, as identified across the webinar series?**	Vulnerability types, root causes, driving factors	V2V core axis and SES context
RQ3	**What transitional pathways and processes are identified in the webinars as means of moving SSF from vulnerability to viability?**	Governance pathways, community strategies, policy mechanisms	Blue Justice lens and V2V core axis

***Note*.** Each research question is addressed through inductive thematic analysis of all 59 V2V webinar sessions. The framework alignment column indicates which layer or layers of the tri-layered conceptual framework most directly inform each question. The full framework is presented in Chapter Two.

1.6 Significance of the Study

1.6.1 Academic Significance

At a moment when blue economy agendas are accelerating the displacement of small-scale fishing communities from their historical territories, when the FAO SSF Guidelines have been internationally endorsed but remain inadequately implemented across most national governance systems, when climate change is intensifying SSF vulnerability faster than adaptation frameworks can respond, and when the global scientific community is only beginning to recognize the full nutritional, economic, and cultural significance of SSF through initiatives like the Illuminating Hidden Harvest study (Franz et al., 2023), the need for a systematic, integrated synthesis of five years of transdisciplinary expert discourse on SSF transitions from vulnerability to viability has

never been more urgent. This study addresses that need directly, and its academic significance can be understood across four dimensions.

This study provides the first systematic, five-year thematic synthesis of the V2V webinar series, bridging disparate bodies of literature on resilience, governance, vulnerability, blue justice, and sustainable livelihoods by examining how these concepts have been applied, contested, and refined in real-world transdisciplinary discussions. Its longitudinal analytical dimension, which tracks how themes evolved, deepened, or consolidated across five years and 59 sessions, represents a methodological innovation in SSF research that enables findings about the developmental arc of global SSF knowledge production that cross-sectional analyses cannot produce.

The study introduces an original typology of SSF vulnerability-viability transition contexts, the first such typology grounded in a longitudinal, multi-year, geographically comprehensive SSF knowledge corpus. Together with the V2V Transition Ecosystem framework and the justice-viability nexus, the typology enriches theoretical discussions on blue justice, just transformations, and social-ecological systems theory by grounding them in the voices of 59 distinguished experts from across Africa, Asia, Latin America, the Caribbean, and internationally, incorporating dimensions including decolonial governance, marine bioregionalism, and climate loss and damage financing that are underrepresented in existing SSF synthesis literature..

1.6.2 Practical Significance

The practical contributions of this study are equally significant. By identifying recurring themes, vulnerability types, and transitional pathways from a diversity of geographic and institutional contexts, the study provides structured, evidence-based knowledge for SSF governance and policy across multiple scales. Decision-makers at local, national, and international

levels can draw on the typology of transition contexts to identify which combinations of pathways are most likely to be effective in specific community situations, rather than applying generic best-practice approaches that may be poorly matched to context.

The study's documentation of the legal architecture of SSF viability, including constitutional rights-based approaches, SSF Guidelines domestication, and emerging blue tenure and loss and damage financing instruments, points toward concrete governance innovations that SSF advocates, civil society organizations, and policymakers can pursue. Its observation that new thematic content declined sharply within the 2021 to 2025 window offers the V2V Global Partnership a useful data point about how its knowledge platform developed during its first five years, and may offer a transferable model for how transdisciplinary knowledge commons can consolidate core concepts in emerging scholarly and policy domains, while the platform itself continues to evolve and generate new governance frontiers, as the three new 2025 codes themselves demonstrate. The synthesized knowledge from the V2V webinar series can also support cross-context learning among SSF communities, practitioners, and researchers worldwide, facilitating the kind of knowledge exchange that the V2V partnership was designed to enable but that systematic synthesis makes far more accessible and impactful.

1.7 Conceptual Orientation

This study is guided by an original tri-layered conceptual framework developed in Chapter Two. The framework integrates three theoretical traditions that together provide a comprehensive and analytically productive lens for understanding SSF transitions from vulnerability to viability. The first and innermost layer is the V2V vulnerability-to-viability core axis, developed by Nayak and Berkes (2014) and elaborated by the V2V Global Partnership, which frames the organizing

tension of the analysis across ecological, economic, social, cultural, and institutional domains. The second layer is the blue justice evaluative lens, developed by Jentoft et al. (2022) and Blythe et al. (2022), which provides the normative framework for evaluating whether transitions are recognitionally, procedurally, and distributionally just. The third and outermost layer is the social-ecological systems theoretical context, developed by Ostrom (2009) and extended by Berkes (2012), which situates the analysis within the complex adaptive systems in which SSF communities are embedded and through which their transitions from vulnerability to viability must be understood.

A single existing framework, however well-developed, is insufficient for the analytical task this thesis undertakes. Social-ecological systems theory (Ostrom, 2009; Berkes, 2012) provides the systemic context for understanding SSF as complex adaptive systems but lacks a normative criterion for evaluating the quality of transitions. Blue justice theory (Jentoft et al., 2022; Blythe et al., 2022) provides that normative criterion but does not account for the multi-scale ecological and governance dynamics within which justice must be operationalized. The V2V vulnerability-to-viability axis (Nayak and Berkes, 2014) provides the organizing direction of change but requires both a systemic context and a justice evaluative lens to produce analytically complete accounts of SSF transitions. Only by integrating all three layers into a single coherent framework can the analysis attend simultaneously to what SSF transitions are aiming for, how just those transitions are, and within what systemic conditions they are taking place. This integration is the defining theoretical innovation of the tri-layered conceptual framework developed fully in Chapter Two.

The framework is not merely an analytical scaffold imported from the literature: it is tested and refined through empirical engagement with 59 webinar sessions, and the findings of the analysis confirm its adequacy and productivity as a lens for understanding SSF transitions.

1.8 Overview of Research Methodology

This study employs a qualitative research design grounded in a constructivist paradigm, which holds that knowledge is not objective and pre-given but is actively constructed through the interpretive engagement of the researcher with the phenomena under study (Creswell and Poth, 2018). The primary data source is the corpus of 59 V2V Global Partnership thematic webinar sessions spanning January 2021 to December 2025, comprising 48 full transcripts from the 2021 to 2024 series and 11 video recordings from the 2025 series. The analytical method is reflexive thematic analysis as developed and described by Braun and Clarke (2022), a theoretically flexible and epistemologically coherent method for identifying, analyzing, and reporting patterns of meaning within qualitative data.

The analysis follows the six-phase process described by Braun and Clarke (2022): familiarization with the data, generation of initial codes, searching for themes, reviewing themes, defining and naming themes, and producing the report. A distinctive feature of the analytical approach is its temporal dimension: rather than treating the 59 sessions as a single undifferentiated corpus, the analysis systematically tracks when each code appears and how its treatment evolves across the five years of the series, enabling findings about the developmental arc of SSF knowledge production that cross-sectional analysis cannot produce. The trustworthiness of the analysis is established through the criteria of credibility, transferability, dependability, and confirmability described by Lincoln and Guba (1985). The full methodology is described in Chapter Three.

1.9 Organization of the Thesis

This thesis is organized into six chapters. Table 2 provides an overview of the content and purpose of each chapter, situating it within the overall structure of the study.

Table 2

Organization of the Thesis: Chapter Overview

Ch.	Title	Content and Purpose
Ch. 1	**Introduction**	Establishes the research context, problem, purpose, research questions, significance, and chapter roadmap. Situates the study within the global SSF governance landscape.
Ch. 2	**Literature Review and Conceptual Framework**	Reviews existing scholarship on SSF vulnerability, viability, governance, blue justice, and transdisciplinarity. Develops the original tri-layered conceptual framework integrating the V2V axis, the blue justice evaluative lens, and SES theory.
Ch. 3	**Methodology**	Describes the constructivist research paradigm, qualitative thematic synthesis design, V2V webinar data corpus, six-phase reflexive thematic analysis process, trustworthiness strategies, positionality, and ethical considerations.
Ch. 4	**Results**	Presents 74 codes organized across the three research questions, with temporal tracking across 2021 to 2025 showing thematic evolution from foundational mapping through theory-building, evidence consolidation, and action and justice frameworks, to a marked decline in new thematic content by 2025.
Ch. 5	**Discussion**	Interprets the findings in relation to the existing literature and the tri-layered framework. Advances six overarching arguments including an original typology of SSF transition contexts and the theorization of the V2V series as a knowledge commons.
Ch. 6	**Conclusion**	Summarizes the principal contributions of the study, addresses implications for SSF policy and practice, acknowledges limitations, and identifies directions for future research.

Note. Each chapter builds on the preceding one, moving from contextual and theoretical grounding through methodological description and empirical findings to interpretive discussion and concluding synthesis. The thesis is designed to be read sequentially, though each chapter is sufficiently self-contained to be consulted independently.

Chapter Two presents the literature review and conceptual framework. It reviews existing scholarship across four domains: vulnerability in SSF, the concept of viability and the frameworks

that underpin it, the role of governance and transdisciplinarity in enabling SSF transitions, and the emerging blue justice literature. The chapter concludes by synthesizing these traditions into the original tri-layered conceptual framework that guides the analysis.

Chapter Three describes the research methodology in detail, including the constructivist paradigm, the qualitative documentary research design, the V2V webinar data corpus, the six-phase reflexive thematic analysis process, the temporal dimension of the analysis, the researcher's positionality, trustworthiness strategies, and ethical considerations.

Chapter Four presents the results of the thematic analysis, organized by the three research questions. It documents 74 codes across five years of webinar discourse, with temporal tracking showing the evolution of themes from foundational conceptual mapping in 2021 through a marked decline in new thematic content by 2025. Six figures and tables illustrate the distribution, frequency, and evolution of codes across the series.

Chapter Five discusses the findings in relation to the existing literature and the tri-layered conceptual framework. It advances six overarching arguments about the paradigmatic shift from vulnerability management to justice assertion, the structural character of SSF vulnerability, the social and political nature of effective transitional pathways, an original typology of SSF transition contexts, the justice-viability nexus, the V2V series as a knowledge commons, and the pattern of declining new thematic content observed within the five-year period studied.

Chapter Six presents the conclusions of the study, summarizing the principal contributions, addressing implications for SSF policy and practice, acknowledging the limitations of the study, and identifying directions for future research that extend and deepen the insights of this analysis.

CHAPTER TWO

Literature Review and Conceptual Framework

2.1 The Field That Learned to Ask Better Questions

The story of small-scale fisheries in the scholarly literature is, in many ways, the story of a field learning to ask better questions. It begins with questions about poverty and livelihoods, moves through questions about resilience and governance, and arrives, in the most recent decade, at questions about justice and rights. Each shift in questioning has brought new insights and new blind spots, and each has left a residue of concepts, frameworks, and debates that the next generation of scholars has had to navigate. This chapter traces that intellectual journey.

The chapter is organized around five interconnected bodies of literature, each selected for a specific and deliberate reason. The literature on SSF significance and governance deficit is reviewed first because it establishes why the sector demands urgent scholarly and policy attention and what structural conditions produce its persistent marginalization. Without understanding those conditions, any study of SSF transitions risks treating symptoms rather than causes. The literature on vulnerability is reviewed second because understanding what makes SSF communities precarious is the necessary analytical foundation for understanding what enables their transition to viability. The literature on viability, resilience, and co-management is reviewed third because it provides the conceptual vocabulary and empirical evidence for what thriving looks like and how governance arrangements can enable it, while also revealing the limitations of frameworks that focus on adaptation without addressing structural injustice. The literature on blue justice and just transformations is reviewed fourth because it provides the normative evaluative lens without which any account of SSF transitions remains analytically incomplete. And the literature on

transdisciplinarity and knowledge co-production is reviewed fifth because it establishes the epistemological foundation for treating the V2V webinar series as a rigorous and legitimate source of scholarly knowledge about SSF governance. Together, these five bodies of literature converge on a single conclusion: no single existing framework is sufficient for understanding SSF transitions from vulnerability to viability in their full complexity. That conclusion is the direct justification for the original tri-layered conceptual framework developed at the end of this chapter.

2.2 Half a Billion People the World Does Not Count

To understand why small-scale fisheries matter, one must begin with a fact that consistently surprises those who encounter it for the first time: the fishing boats that attract the least policy attention and the fewest research dollars are responsible for feeding more people than all of industrial fisheries combined. The Food and Agriculture Organization of the United Nations (FAO, 2015) estimates that small-scale fisheries employ over 90 percent of the world's capture fishers and fish workers. The Illuminating Hidden Harvest initiative, the most comprehensive global study of SSF contributions, found that small-scale fisheries support approximately 500 million people globally, engage 45 million women, and generate an estimated 77 billion USD in value annually, the vast majority of which remains invisible to official statistics (Franz et al., 2023). The World Bank (2012), in its landmark Hidden Harvest report, arrived at similarly striking figures and reached a similarly uncomfortable conclusion: the world's most important food security resource had been systematically undervalued because the metrics used to measure it were designed for industrial production rather than for the nutritional, livelihood, and cultural functions that SSF actually serve.

This statistical invisibility is not accidental. It reflects a deeper governance reality in which SSF are systematically marginalized in relation to industrial fisheries, coastal development interests, and state bureaucracies. The FAO defines SSF as a diverse subsector using relatively small vessels, low capital investment, and relatively low-technology methods, with a primary objective of supplying fish for local and domestic consumption (FAO, 2015). This definition encompasses an extraordinary diversity of fishing practices across geographic, ecological, cultural, and technological contexts, from artisanal marine fishing along West African coastlines to inland river fisheries in South Asia to reef fishing in the Caribbean. What unites this diversity is not technical similarity but structural position: SSF communities are consistently underrepresented in the governance processes that determine access to marine and freshwater resources, and consistently under-protected in the legal frameworks that regulate their use (Jentoft et al., 2011; Chuenpagdee and Jentoft, 2018).

The recognition of this governance deficit drove the development of the FAO Voluntary Guidelines for Securing Sustainable Small-Scale Fisheries, endorsed by the Committee on Fisheries in 2015, the first internationally agreed framework specifically designed to address the governance, livelihood, and rights dimensions of SSF at global scale (FAO, 2015). The SSF Guidelines represent a landmark achievement in international fisheries governance, establishing a normative framework grounded in human rights principles, participatory governance, gender equity, and ecological sustainability. Yet their endorsement has not translated into consistent implementation: a decade after their adoption, the Guidelines remain incompletely domesticated into national law across most SSF-significant countries, and the governance deficit they were designed to address persists (Nakamura, 2025; Areola, 2023).

Understanding why this implementation gap persists requires going beyond technical explanations about institutional capacity or political will, and engaging with the deeper structural analysis that the political ecology tradition brings to SSF governance. Satizabal et al. (2020) argue that SSF governance failures are not accidents or oversights but the outcomes of specific historical and contemporary political arrangements that systematically prioritize industrial fishing interests, coastal development agendas, and extractive economic models over small-scale community livelihoods. This structural interpretation, which runs through the most critical SSF scholarship of the past two decades, is the intellectual foundation on which the rest of this literature review is built.

2.3 Theorizing Vulnerability in SSF: From Deficits to Structures

2.3.1 From Climate Exposure to Structural Power

The concept of vulnerability entered SSF scholarship primarily through the lens of climate change adaptation. Allison et al. (2009), in what remains one of the most cited empirical studies of SSF vulnerability, proposed a framework that assessed the vulnerability of national economies to fisheries-related climate change impacts across three dimensions: exposure to ecological change, sensitivity of livelihoods to those changes, and adaptive capacity to respond. This tripartite framework, drawing on the broader climate vulnerability literature (Adger, 2006; IPCC, 2007), provided a systematic basis for comparing SSF vulnerability across national contexts and identifying those most in need of support. Subsequent studies by Badjeck et al. (2010), Cinner et al. (2012), and Islam et al. (2014) applied and refined this framework across diverse geographic and ecological contexts, building a substantial body of evidence on the specific channels through which climate change threatens SSF livelihoods.

The climate vulnerability framework was enormously productive in drawing attention to the ecological dimensions of SSF precarity. But it had a fundamental limitation that scholars were slow to acknowledge: it treated vulnerability as primarily a relationship between communities and their natural environment, missing the extent to which institutional arrangements, governance failures, and historical processes shape the conditions under which communities encounter and respond to environmental stress. A community that lacks secure tenure, legal recognition, and governance participation is not simply more sensitive to climate change: it has been made vulnerable through specific political choices that could be undone through different political choices (Satizabal et al., 2020; Bene, 2009).

Bene (2009) made this argument forcefully in an influential critique of the vulnerability paradigm, asking whether fishers are poor or vulnerable and concluding that the distinction matters enormously for how interventions are designed. A community that is poor can be helped through income support and livelihood diversification. A community that is vulnerable to structural political and institutional arrangements requires governance reform, legal recognition, and power redistribution. Treating vulnerability as a problem of poverty rather than a problem of power leads to interventions that are inadequate to the structural conditions they purport to address.

This structural critique was deepened by the political ecology tradition, which analyzes resource-dependent community vulnerability as the product of specific historical, political, and economic arrangements rather than as a natural condition of resource dependence (Blaikie and Brookfield, 1987; Watts and Bohle, 1993). Applied to SSF, the political ecology framework reveals how colonial legal frameworks systematically dispossessed fishing communities of water rights and resource access, how post-colonial states inherited and often reinforced these arrangements, and how contemporary blue economy development agendas reproduce colonial

patterns of extraction and displacement under new institutional forms (Satizabal et al., 2020; Blythe et al., 2022).

Islam and Chuenpagdee (2022) made a significant methodological contribution to this structural analysis by developing the first comprehensive classification of SSF vulnerability types, distinguishing among ecological, economic, social, and institutional vulnerability sources and among local, national, and global vulnerability scales. Their framework revealed that the most severe and persistent SSF vulnerabilities are institutional rather than ecological: communities that lack formal legal recognition, governance participation, and enforceable rights are structurally exposed to all other vulnerability types in ways that communities with secure institutional standing are not. This finding, grounded in systematic comparative analysis of SSF vulnerability across diverse contexts, provides the empirical foundation for the argument that institutional reform is a prerequisite for effective SSF vulnerability reduction.

2.3.2 Colonial Legacy and Blue Economy Displacement

Among the most consequential contributions to the SSF vulnerability literature in recent years has been the sustained engagement with the colonial roots of contemporary SSF precarity. Scholars including Rouhani (2022), Vipul Singh (2024), Areola (2023), and Nyiawung (2025) have documented, across South Africa, India, Nigeria, and the Gulf of Guinea respectively, how British, French, and Portuguese colonial administrations systematically converted traditional common-property fishing rights into leasable assets, criminalized subsistence fishing, and excluded artisanal fishing communities from the formal legal frameworks governing water and resource access. These colonial dispossessions were not historical episodes that ended with

independence: they were institutionalized in the legal and governance frameworks that post-colonial states inherited and, in many cases, preserved.

The concept of colonial legacy exclusion as a vulnerability type is particularly significant because it reveals the inadequacy of technical interventions that treat contemporary SSF vulnerability as a recent or resolvable problem. Communities whose water rights were extinguished in the nineteenth century and whose legal standing to assert those rights was systematically denied across independence and into the present face a depth of institutional vulnerability that cannot be addressed through livelihood diversification programs or capacity building workshops. They require, as Vipul Singh's (2024) Bihar case so powerfully illustrates, legal reform that reverses the political dispossession at the root of their precarity: in Bihar, it was not better fishing practices or improved market access but the Bihar Fish Jalkar Management Act of 2006 that enabled a doubling of fish production by granting the Mala community the legal rights they needed to invest in and manage the water resources they had historically used.

The most recent addition to the SSF vulnerability literature is the documentation of what Blythe et al. (2022) describe as blue economy displacement risks: the specific pathways through which blue economy development agendas dispossess SSF communities from the marine and coastal spaces they have historically used. Blythe et al. identify ten distinct displacement pathways, including ocean grabbing, pollution, cultural harm, exclusion from marine spatial planning processes, and the prioritization of conservation goals that ignore SSF tenure. Their analysis reveals that blue economy development, despite its sustainability rhetoric, frequently reproduces colonial patterns of resource enclosure in which the most powerful actors capture the benefits of marine development while the most vulnerable communities bear the costs.

This emerging vulnerability type has gained rapidly growing empirical documentation. Selim's (2024) research on Maheshkhali Island in Bangladesh documents how the construction of a liquid natural gas terminal displaced approximately 200 fishing families from their grounds with neither adequate consultation nor compensation. Jyotishi's (2025) research on the Karnataka coast documents how the expansion of cage culture and fishmeal production is displacing women fish processors from livelihoods they have held for generations. The December 2025 V2V webinar on Bangladesh's crowded coast documents how megaproject development along the coast is excluding SSF communities from planning processes that determine the fate of the marine resources on which they depend. These cases collectively reveal a pattern in which blue economy development, when pursued without justice frameworks, transforms economically precarious but culturally and ecologically anchored fishing communities into landless, livelihood-destitute households with no viable pathway back to viability.

2.4 From Vulnerability to Viability: Conceptualizing the Transition

2.4.1 Defining Viability and the Limits of Resilience

Viability is a less developed concept in the SSF literature than vulnerability, a scholarly asymmetry that reflects the field's historical preoccupation with documenting problems rather than theorizing solutions. Nayak and Berkes (2014), in their foundational work on the Chilika Lagoon social-ecological system in India's Odisha state, proposed viability as the capacity of a fishing community to sustain itself ecologically, economically, and socially in the face of change. This definition is deceptively simple: it subsumes resilience (the capacity to absorb shocks), adaptive capacity (the capacity to adjust to changing conditions), and sustainability (the capacity to maintain

resource productivity over time), while going beyond all three to include the social, cultural, and political dimensions of community life that ecological and economic frameworks tend to miss.

Viability in this sense is not merely a matter of catch volumes, income levels, or ecosystem health, though it encompasses all of these. A community is viable when its members can maintain their livelihoods, sustain their cultural practices and identities, participate meaningfully in the governance of their resources, and transmit their ecological knowledge and fishing traditions to future generations. This multidimensional conception of viability aligns with the well-being ecosystem services bundles framework developed by Dias et al. (2021), which argues that the ecosystem services that matter most to SSF communities are those that support specific dimensions of well-being including nutrition, cultural identity, social cohesion, and spiritual connection, not merely those that can be straightforwardly monetized or measured by conventional ecological assessment tools.

On the other hand, resilience theory, particularly as developed by Berkes (2007; 2012), Folke et al. (2010), and Armitage et al. (2017), has made significant contributions to understanding how SSF communities respond to change. The distinction among coping, adapting, and transforming as three qualitatively different modes of resilience response (Berkes, 2007) provides a vocabulary for describing the range of strategies available to communities under stress, from the defensive maintenance of existing systems to the fundamental restructuring of social-ecological relationships. The emphasis on the importance of ecological knowledge, institutional diversity, and social networks as components of resilience (Berkes, 2012) aligns closely with what the V2V webinar series consistently identifies as the enabling conditions of SSF viability.

Yet resilience theory carries a limitation that its most critical interlocutors have identified: it can normalize vulnerability by framing it as a condition to be absorbed and adapted to rather than a political arrangement to be challenged and transformed (Blythe, 2020; Brown, 2014). If a community is resilient to the displacement caused by blue economy development, does that mean the displacement is acceptable? If a community adapts to the effects of colonial dispossession by developing alternative livelihoods, does that mean the dispossession has been adequately addressed? The resilience literature, at least in its earlier formulations, lacked the normative framework needed to answer these questions, and its consequent silence on the justice dimensions of SSF transitions limited its analytical and practical utility for communities seeking not merely to survive their vulnerability but to overcome it on just terms.

2.4.2 Nobody Delivers Viability - Communities Achieve It

The most significant conceptual development in the SSF viability literature of the past decade is the recognition that viability is not a developmental state that communities achieve through the accumulation of sufficient assets or the adoption of more sustainable practices, but a political achievement that requires the removal of structural barriers to community self-determination (Dias et al., 2023a; Chuenpagdee and Jentoft, 2018). Communities do not become viable by becoming more resilient to unjust conditions: they become viable when those unjust conditions are changed. This political understanding of viability is what distinguishes the most recent generation of SSF scholarship from its predecessors, and it is what gives the concept its analytical power for this study.

Dias et al. (2023a), in their situational analysis of SSF in Asia and Africa, found that successful viability transitions consistently involve integrated approaches that simultaneously

address multiple dimensions of vulnerability rather than targeting individual stressors in isolation. This finding has profound implications for program design: it suggests that the single-issue interventions that dominate SSF development programming are structurally inadequate to the compound, multi-dimensional vulnerability that SSF communities face. What is needed, and what the most successful cases documented in the V2V webinar series consistently demonstrate, is a constellation of reinforcing interventions that address governance, livelihoods, knowledge, legal standing, and ecological health simultaneously.

2.5 Governance, Co-management, and the Transdisciplinary Turn

2.5.1 The Commons and the Limits of Markets and States

The theoretical foundation of SSF governance scholarship is Elinor Ostrom's (1990) landmark work on the governance of common pool resources. Against the prevailing assumption, derived from Hardin's (1968) tragedy of the commons, that shared resources are inevitably degraded through individual self-interest, Ostrom demonstrated through systematic comparative analysis of hundreds of cases worldwide that communities can and do successfully govern shared resources through institutional arrangements that are neither market-based nor state-managed. Her eight design principles for successful commons governance, including clearly defined boundaries, rules matched to local conditions, collective choice arrangements, monitoring, graduated sanctions, conflict resolution mechanisms, recognized rights to organize, and nested governance, have shaped two generations of SSF governance research and continue to provide the foundational vocabulary of co-management theory (Ostrom, 1990; 2009).

Ostrom's theoretical framework was extended and deepened through its application to social-ecological systems, or SES, a concept that recognizes fisheries as complex adaptive systems

in which human governance, community agency, ecological dynamics, and resource systems interact in non-linear, often unpredictable ways (Ostrom, 2009; Berkes, 2012). The SES perspective enables analysis of multi-scale interactions and feedback loops that simpler frameworks cannot capture: how local governance decisions affect ecological outcomes, how national policy shapes community adaptive capacity, how global market forces interact with local fishing practices, and how ecological change triggers governance responses that in turn reshape ecological outcomes. This systemic perspective is essential for understanding why SSF vulnerability persists despite decades of development interventions that target individual dimensions of the compound vulnerability without addressing its systemic roots.

2.5.2 Shared Management Is Not the Same as Shared Power

Co-management, broadly defined as governance arrangements that share power and responsibility between SSF communities and state authorities with built-in mechanisms for learning and adjustment (Berkes, 2009; Pomeroy, 2016), has emerged as the dominant governance reform strategy in SSF scholarship and policy over the past three decades. Its promise is compelling: by bringing fishing communities into the governance process, co-management can incorporate local ecological knowledge, improve compliance with management rules, build the trust and social capital needed for collective action, and adapt management measures to local ecological and social conditions in ways that centralized state management cannot (Gutierrez et al., 2011; Trimble and Lazaro, 2014).

The empirical evidence on co-management outcomes is, however, more mixed than its advocates often acknowledge. Gutierrez et al. (2011), in a large-scale comparative analysis of fisheries worldwide, found that leadership, social capital, and appropriate incentives were the

strongest predictors of fisheries success, not co-management as an institutional form per se. Trimble and Johnson (2013) documented how co-management arrangements in coastal Uruguay and Brazil were shaped by fishers' own wellbeing aspirations rather than by governance designers' assumptions about what fishers want, revealing the gap between externally designed co-management frameworks and the governance forms that communities would design for themselves. And the extensive literature on co-management failures (Armitage et al., 2017; Chuenpagdee and Jentoft, 2018) documents how co-management can be captured by more powerful actors, implemented in ways that impose additional costs on communities rather than sharing them, or designed around scientifically determined management objectives that are at odds with community livelihood needs.

These limitations do not invalidate co-management as a governance approach, but they reveal that its effectiveness depends critically on the quality of the governance relationships within which it is embedded. This insight motivated the development of the interactive governance framework by Chuenpagdee and Jentoft (2015; 2018), which conceptualizes SSF governance not as a technical problem of rule-design but as a relational and political process in which the interactions among fishing communities, governments, civil society organizations, and markets shape the quality, legitimacy, and effectiveness of governance outcomes. Interactive governance theory insists that what matters in SSF governance is not primarily the formal rules adopted but the quality of the relationships, deliberations, and power dynamics through which those rules are developed, implemented, and revised.

2.5.3 The Transdisciplinary Turn: Knowledge as Governance

The most significant development in SSF governance scholarship of the past decade is the turn toward transdisciplinarity as both a research methodology and a governance philosophy. Transdisciplinary research, as theorized by Lang et al. (2012) and operationalized in the sustainability sciences by Norström et al. (2020), goes beyond interdisciplinarity to actively involve non-academic stakeholders, including fishing communities, practitioners, policymakers, and civil society organizations, in the knowledge production process. The result is knowledge that is simultaneously more scientifically rigorous, because it incorporates diverse sources of evidence and perspective, and more socially legitimate, because it has been co-produced with the communities it is designed to serve.

Norström et al. (2020) identify six principles for effective knowledge co-production in sustainability research: context-specific relevance, co-design among diverse partners, integration of diverse knowledge types, reflexivity about the researchers' own positionality, and salience to decision-making processes. These principles encode a fundamental claim about the relationship between knowledge and governance: that the processes by which knowledge is produced are not merely methodological choices but political practices with direct implications for whose voices are heard, whose knowledge counts as evidence, and whose interests are served by the governance arrangements that knowledge informs.

This claim has been taken up in the SSF literature through the concept of epistemic justice, developed by Fricker (2007) and applied to environmental governance by Whyte (2013) and others. Epistemic injustice occurs when communities are systematically excluded from knowledge production processes, their experiential knowledge is dismissed as merely anecdotal or traditional rather than recognized as a legitimate form of evidence, and the governance frameworks built on scientific knowledge alone fail to reflect community priorities, values, and ecological

understanding. The V2V webinar series is, among other things, a sustained institutional response to this epistemic injustice: by bringing together scientific knowledge, practitioner experience, community wisdom, and policy expertise in a publicly accessible, transdisciplinary format, it models the kind of knowledge co-production that the SSF literature increasingly identifies as both methodologically necessary and politically imperative.

2.6 Blue Justice and Just Transformations: The Paradigm Shift

2.6.1 The Roots and Rise of Blue Justice

The emergence of blue justice as a concept in SSF scholarship cannot be understood without recognizing its intellectual roots in the environmental justice tradition. Environmental justice scholarship, emerging from community activism and academic research in the United States in the 1980s and 1990s, documented the systematic pattern by which environmental burdens, including pollution, toxic waste, and ecosystem degradation, were disproportionately concentrated in communities of colour and low-income communities, while the benefits of environmental exploitation were captured by wealthier and more powerful actors (Bullard, 1990; Walker, 2012). The early environmental justice literature focused primarily on distributional equity, asking who bears environmental burdens and who captures environmental benefits.

David Schlosberg (2007), in a landmark theoretical synthesis, argued that this distributional focus was necessary but insufficient. Drawing on the political philosophy of recognition (Young, 1990; Fraser, 2000) and capabilities (Sen, 1999; Nussbaum, 2011), Schlosberg argued that environmental justice requires three simultaneous commitments: distributional justice in the allocation of environmental benefits and burdens, recognitional justice in the acknowledgment of the identities, histories, and rights of marginalized communities, and procedural justice in the

inclusion of those communities in the governance processes that determine environmental outcomes. This three-dimensional framework, which Schlosberg called the capabilities approach to environmental justice, provides the theoretical foundation for the blue justice concept that has transformed SSF scholarship in the 2020s.

The concept of blue justice, introduced and developed primarily through the work of Jentoft et al. (2022) and their collaborators, applies Schlosberg's three-dimensional environmental justice framework specifically to the marine and coastal context of SSF governance. The edited volume Blue Justice: Small-Scale Fisheries in a Sustainable Ocean Economy (Jentoft et al., 2022) brought together scholars from across the SSF world to document and theorize the specific forms of injustice that SSF communities face in the context of blue economy development, conservation initiatives, and governance exclusion. The volume established blue justice not merely as a descriptive concept but as a normative framework: a set of criteria against which SSF governance arrangements and development programs can be evaluated, and a political project aimed at transforming those arrangements toward more just outcomes.

Milena Arias Schreiber (2022) made a particularly significant contribution to the blue justice project through the development of a 13-concept glossary of justice-oriented vocabulary specifically designed for SSF advocacy. Terms including fisherphobia, which describes the systematic devaluation and criminalization of small-scale fishing as a livelihood; eco-bullying, which describes the use of conservation discourse to justify SSF displacement; and industrial pillaging, which describes the systematic appropriation of SSF resources by industrial fishing fleets and coastal developers, gave advocates the precise language needed to name and contest the specific forms of injustice they face. This act of naming is itself a form of epistemic justice: it makes visible the structural arrangements that produce SSF vulnerability, translates experiential

knowledge into analytical concepts, and provides a shared vocabulary for the political struggle for SSF rights.

Prado et al. (2024), in a systematic review of 73 blue injustice cases across ten Latin American countries, provided the most comprehensive empirical documentation of blue justice theory to date. Their analysis identified nine distinct blue injustice typologies and found that the most prevalent forms of injustice in Latin American SSF are distributive and social, involving restricted access to fishing territories, the marginalization of women and indigenous communities, and the exclusion of SSF from the economic benefits of marine development. They also found that active social mobilization by SSF communities, including protests, litigation, participatory monitoring, and the formation of advocacy networks, was the most consistently effective response to blue injustice across diverse contexts and governance systems.

2.6.2 Not All Change Is Progress

The just transformations framework, developed by Blythe et al. (2022), extends the blue justice concept into the domain of governance change and sustainability transitions. Blythe and her collaborators argue that the growing discourse of sustainability transformation in ocean governance, which calls for fundamental restructuring of marine economic, ecological, and governance systems to achieve long-term sustainability, must be scrutinized carefully through a justice lens. Transformations, even those framed as positive and necessary, distribute costs and benefits in ways that reflect existing power structures: those who are already disadvantaged under existing arrangements are often those who bear the greatest costs of transformation and receive the fewest of its benefits.

This insight, which Blythe et al. (2022) describe as the dark side of transformation, has profound implications for SSF governance. A blue economy transition that generates renewable energy from offshore wind, protects marine biodiversity through expanded conservation areas, and creates economic growth through marine tourism may represent genuine progress toward ocean sustainability while simultaneously displacing SSF communities from their fishing grounds, excluding them from the economic benefits of marine development, and extinguishing the cultural practices and ecological knowledge that have sustained coastal communities for generations. Just transformation theory insists that sustainability progress measured without justice metrics is not genuine sustainability progress but the imposition of one community's vision of a good future on another community's present livelihood.

The operationalization of just transformation theory in SSF governance has advanced significantly in recent years. Susilowati (2025) developed blue justice indicators for evaluating the transition from blue growth to blue justice in Indonesian coastal-marine fisheries, demonstrating that blue growth and blue justice can be mutually reinforcing rather than contradictory when equity, recognition, and procedural inclusion are built into development processes from the outset. Muhl's (2025) work on blue tenure transitions in the Western Indian Ocean provides another example of operationalization, showing how the combination of scientific evidence on tenure governance outcomes and community-developed mapping tools for documenting tenure stories can provide SSF communities with both the evidence and the narrative tools they need to assert tenure rights in governance processes that have historically excluded them.

2.7 Transitional Pathways: What the Literature Tells Us About How Change Happens

2.7.1 Livelihood Diversification and Economic Pathways

The earliest and most extensively documented transitional pathway in the SSF literature is livelihood diversification: the strategy of integrating complementary income sources alongside fishing to reduce economic dependence on a single resource and enhance household resilience during periods of stock decline, market volatility, or governance-imposed restrictions (Allison et al., 2009; Bene, 2009). The theoretical rationale for livelihood diversification draws on the Sustainable Livelihoods Approach (Chambers and Conway, 1992; DFID, 1999), which argues that household livelihood security depends on the breadth and quality of the capital asset portfolio across natural, financial, human, social, and physical dimensions.

The empirical evidence on livelihood diversification as a transitional pathway is nuanced. Diversification can reduce household economic vulnerability and provide a buffer against resource-dependent income shocks. But it can also reduce the time and attention available for fishing, leading to gradual disengagement from SSF livelihoods and the erosion of the ecological knowledge, social networks, and cultural practices associated with them (Trimble and Johnson, 2013). The most effective livelihood diversification strategies are those that complement rather than replace fishing, building on existing community assets and knowledge while reducing dependence on any single income source. When diversification is imposed as a condition of access to development support, rather than chosen by communities in response to their own assessment of livelihood priorities, it tends to produce less durable outcomes and greater community resentment (Bene, 2009).

2.7.2 The Law Can Be the Problem or the Solution

The growing recognition that SSF vulnerability is fundamentally a political and legal problem rather than a developmental deficit has driven increasing scholarly and policy attention

to legal reform and rights-based approaches as transitional pathways. The FAO SSF Guidelines (FAO, 2015) provide the global normative framework for this approach, establishing a rights-based framework for SSF governance that encompasses rights to fishing territories, governance participation, social protection, and gender equity. Nakamura's (2025) analysis of the SSF Guidelines as an evolving international legal instrument traces how the Guidelines have progressively acquired legal force through their incorporation into national legislation, regional fisheries agreements, and international human rights frameworks, becoming an increasingly powerful advocacy tool for SSF communities seeking legal recognition and protection.

The domestication of the SSF Guidelines into national law, advocated by Areola (2023) in the Nigerian context and documented by Rouhani (2022) in the South African context, represents one of the most practically significant governance pathways available to SSF communities. Vipul Singh's (2024) Bihar case study demonstrates the transformative potential of this pathway in its most successful form: a single piece of legislation, the Bihar Fish Jalkar Management Act of 2006, reversed centuries of colonial dispossession and enabled a doubling of fish production within a decade by granting the Mala community the legal rights they needed to invest in and manage the water resources they had historically used. This case stands as perhaps the clearest available empirical demonstration of the principle that legal reform is not a technical exercise in statutory drafting but a political act with direct and measurable consequences for community livelihoods and ecological health.

2.7.3 Knowledge, Rights, and Emerging Pathways

The transdisciplinary turn in SSF governance scholarship has elevated knowledge co-production from a research methodology to a transitional pathway in its own right. The argument,

developed most systematically by Norström et al. (2020) and applied to SSF governance by Armitage et al. (2017), is that the processes by which knowledge about SSF is generated, validated, and incorporated into governance decisions are themselves governance interventions with direct implications for SSF vulnerability and viability. Communities that are recognized as knowledge producers, that participate in the generation of the evidence on which management decisions are based, and that see their ecological knowledge reflected in governance frameworks are more likely to comply with and benefit from those frameworks than communities whose knowledge is dismissed and whose governance participation is token.

The emergence of fisher self-monitoring as a specific knowledge co-production pathway is particularly significant. Prado's (2024) documentation of how Brazilian SSF communities used self-monitoring data from over 400 fishing trips to challenge governance arrangements that criminalized their traditional fishing practices illustrates the political as well as scientific power of community-generated evidence. When fishing communities produce systematic, rigorous data about their fishing practices and ecological outcomes, they transform themselves from subjects of scientific and regulatory scrutiny into producers of the evidence that governance processes need. This transformation of epistemic status is itself a form of justice, and it generates practical governance outcomes that externally generated scientific evidence alone often cannot achieve.

The most recent contributions to the SSF transitional pathways literature point toward governance innovations that extend beyond existing frameworks in conceptually significant directions. The concept of blue tenure, introduced by Muhl (2025) and developed through the Blue Tenure Transitions working group, addresses the fundamental but undertheorized issue of SSF communities' rights to the marine and coastal territories they have historically fished. Formal tenure security, which has long been recognized as essential for sustainable resource management

in terrestrial contexts (Agrawal, 2001), has received much less systematic attention in marine contexts, where the fluidity of ocean resources and the dominance of open-access governance regimes have made formal tenure difficult to define and enforce. Blue tenure theory argues that SSF communities' informal, customary rights to specific fishing territories deserve formal legal recognition and protection, and that without such recognition, SSF communities remain structurally exposed to displacement by blue economy development regardless of what other governance reforms are implemented.

The concept of loss and damage financing as an SSF transitional pathway, introduced by Khan (2023) in the context of the COP28 climate negotiations, represents a conceptually significant extension of SSF rights claims into the international climate finance architecture. The Loss and Damage Fund established at COP28, which committed 760 million USD to support vulnerable communities experiencing climate-related losses that cannot be addressed through adaptation, provides a potential mechanism for directing international climate finance directly to SSF communities without filtering it through national government priorities. Khan argues that SSF communities, whose livelihoods are directly exposed to sea level rise, increased storm intensity, ocean warming, and shifting fish distribution, are among the most legitimate claimants for loss and damage financing, and that community-based organizations with formal legal standing could access the Fund directly with appropriate capacity support.

John Kurien's (2025) concept of marine bioregionalism represents perhaps the most theoretically ambitious of the emerging pathway concepts. Kurien argues that the political borders that divide ocean governance into disconnected national jurisdictions are fundamentally at odds with the ecological realities of marine systems, in which fish populations, current systems, and ecosystem functions operate across scales that national boundaries arbitrarily fragment. SSF

communities have always implicitly recognized these bioregional realities by following fish migrations across political borders and sharing ecological knowledge about the marine spaces they collectively inhabit. Marine bioregionalism proposes formalizing this ecological knowledge in governance frameworks that define marine management zones around ecological boundaries rather than political ones, enabling more rational and equitable governance of the shared resources on which SSF communities depend.

2.8 Synthesis: Five Decades of Scholarship and Still a Gap

The literature reviewed in the preceding sections is rich, diverse, and increasingly sophisticated. It has documented SSF vulnerability across multiple dimensions and geographic contexts, theorized the concept of viability as a multidimensional political achievement, developed governance frameworks that move beyond state-centric management toward co-management, transdisciplinarity, and rights-based approaches, established blue justice as a normative framework for evaluating SSF transitions, and begun to articulate innovative governance pathways including blue tenure, loss and damage financing, and marine bioregionalism. This is a substantial body of scholarship whose contributions should not be underestimated.

Yet the literature has significant gaps that no existing study has adequately addressed. Table 3 presents a systematic overview of these gaps, mapping each to the specific domain in which it occurs, what existing scholarship has contributed, and what remains missing. These gaps are not trivial limitations of individual studies: they are structural absences in the literature that reflect the fragmented, discipline-bound, and cross-sectional character of most SSF scholarship, and that this thesis is specifically designed to address.

Table 3

Gaps in the Existing Literature and How This Study Addresses Them

Gaps in the Literature That This Study Addresses		
Domain	**What Exists**	**What Is Missing**
Synthesis and scope	Case studies and regional analyses of specific SSF vulnerability types or transitional pathways	A longitudinal, geographically comprehensive, multi-year synthesis of expert discourse on SSF transitions from vulnerability to viability
Temporal dimension	Cross-sectional analyses of SSF at single points in time	Longitudinal tracking of how SSF knowledge, frameworks, and governance innovations evolve and consolidate over time
Justice integration	Separate bodies of literature on vulnerability, governance, and justice that rarely engage directly with each other	An integrated analytical framework that simultaneously addresses vulnerability reduction, governance reform, and justice evaluation in SSF transitions
Transition typology	Descriptions of specific transitional pathways in specific contexts	A theoretically grounded typology of SSF vulnerability-viability transition contexts that maps specific vulnerability configurations to effective pathway combinations
Knowledge governance	Studies of specific transdisciplinary research projects and networks	Theorization of transdisciplinary SSF knowledge platforms as knowledge commons with their own governance principles and collective productivity
Temporal content tracking	Individual studies reporting thematic saturation within their specific data corpus as a fixed endpoint	Evidence of a measurable decline in new thematic content across a longitudinal expert discourse series, documented within a defined study period and explicitly bounded to that period, as a substantive methodological and empirical contribution

Note. The gaps identified in this table collectively constitute the scholarly justification for this study. No existing study has produced a systematic, longitudinal, geographically comprehensive thematic synthesis of expert discourse on SSF transitions from vulnerability to viability that integrates vulnerability analysis, governance theory, and blue justice evaluation within a single analytical framework.

The most significant gap, and the one that this study is most directly positioned to address, is the absence of a systematic synthesis of the knowledge generated through the V2V Global Partnership thematic webinar series. Across five years and 59 sessions, the series has produced a remarkable body of transdisciplinary expert discourse that directly addresses the themes of SSF vulnerability and viability across multiple regions, disciplines, and institutional contexts. This discourse has generated shared conceptual vocabulary, empirical evidence from diverse case studies, theoretical frameworks, and policy-oriented insights. But it has remained distributed across 59 individual sessions, never subjected to the systematic analysis and synthesis that would make it accessible and useful as a coherent body of scholarly contribution.

This study addresses that gap. By conducting the first comprehensive thematic analysis of the complete V2V webinar series, it produces the longitudinal, geographically comprehensive, justice-oriented synthesis that the literature lacks. The analytical framework through which it does so is developed in the following section.

2.9 The V2V Transition Ecosystem: An Original Tri-layered Conceptual Framework

2.9.1 The Need for an Integrative Framework

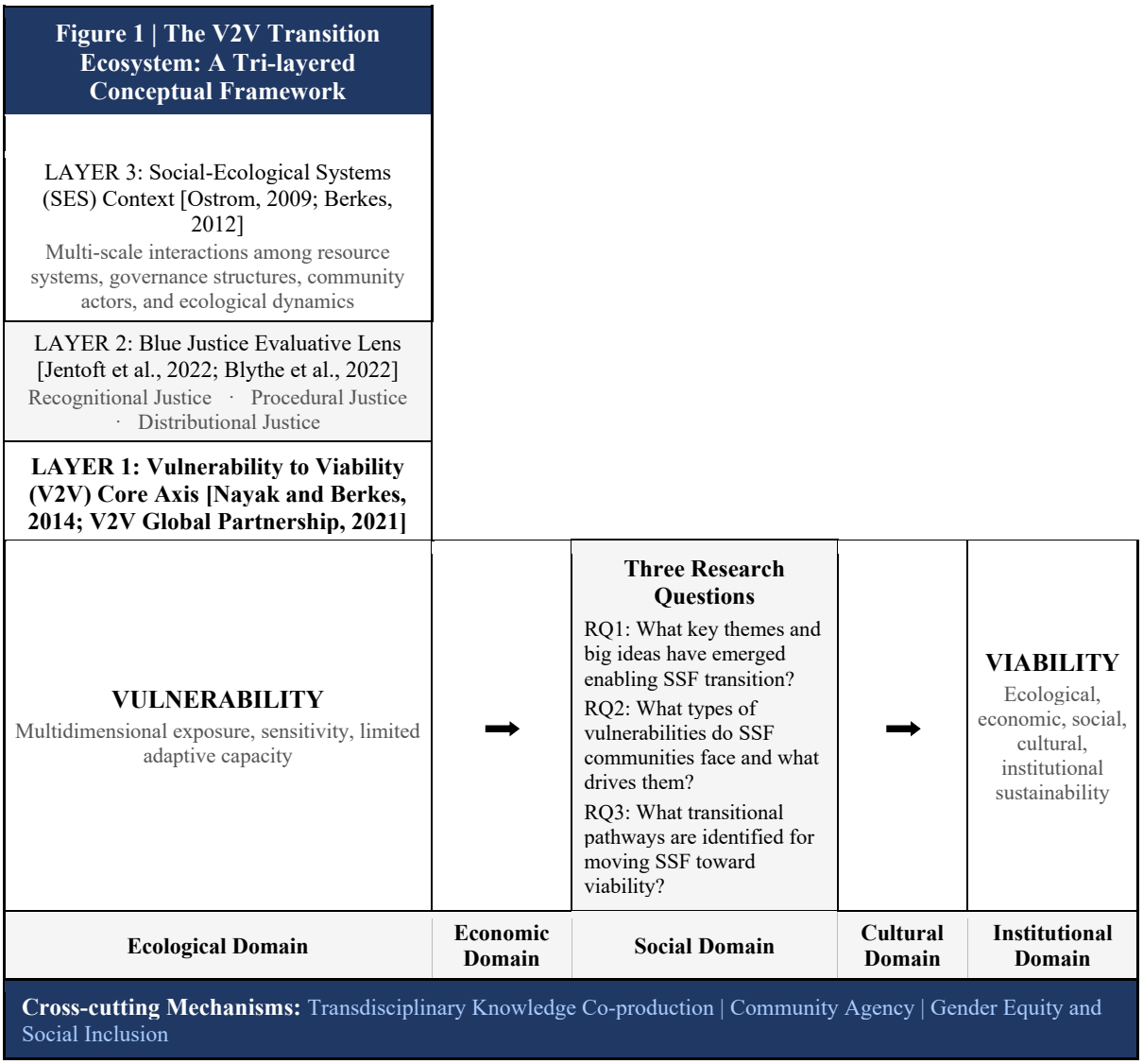
The literature reviewed in the preceding sections converges on a conclusion that is both theoretically important and practically urgent: no single existing framework is sufficient for understanding SSF transitions from vulnerability to viability in their full complexity. Social-ecological systems theory (Ostrom, 2009; Berkes, 2012) provides the systemic context for understanding SSF as complex adaptive systems but lacks a normative criterion for evaluating the quality and justice of transitions. Blue justice theory (Jentoft et al., 2022; Blythe et al., 2022)

provides that normative criterion but does not account for the multi-scale ecological and governance dynamics within which justice must be operationalized. The V2V vulnerability-to-viability axis (Nayak and Berkes, 2014) provides the organizing direction of change and the multi-domain structure within which transitions occur but requires both a systemic context and a justice evaluative lens to produce analytically complete accounts of SSF transitions.

The tri-layered conceptual framework developed in this section integrates all three theoretical traditions into a single coherent analytical structure. It is called the V2V Transition Ecosystem to reflect both its roots in the V2V Global Partnership's conceptual vocabulary and its systemic character: like a natural ecosystem, the framework encompasses multiple interacting components operating at different scales, and its analytical power comes from the relationships among its components rather than from any single component in isolation. The framework is represented visually in Figure 2 and described in detail in the sections that follow.

Figure 1

The V2V Transition Ecosystem: A Tri-layered Conceptual Framework for Analyzing SSF Transitions from Vulnerability to Viability



Note. **Figures 1 and 2 (below)** present complementary representations of the same original tri-layered conceptual framework developed for this study. Figure 1 presents the schematic domain-by-domain structure; Figure 2 presents the integrated visual architecture showing the relationships among the three layers, the five domains, the three research questions, and the cross-cutting mechanisms. Both figures are adapted from Nayak and Berkes (2014); Jentoft et al. (2022); Blythe et al. (2022); Ostrom (2009); Berkes (2012).

Figure 2

The V2V Transition Ecosystem: Visual Representation of the Tri-layered Conceptual Framework

Layer 3

Social-Ecological Systems (SES) Theoretical Context - Ostrom (2009); Berkes (2012)

Resource systems
Marine and inland fisheries as complex adaptive systems with dynamic ecological stocks and flows
Berkes (2012)

Governance structures
Formal and informal rules, institutions, and norms shaping SSF access and management
Ostrom (1990; 2009)

Community actors
Fishers, advocates, policymakers, and NGOs operating across local, national, and global scales
Nayak (2020)

Multi-scale interactions
Non-linear feedback loops linking local livelihoods to global governance and ecological dynamics
Ostrom (2009)

Layer 2

Blue Justice Evaluative Lens - Jentoft et al. (2022); Blythe et al. (2022); Schlosberg (2007)

Recognitional justice
Who is acknowledged as a legitimate actor with rights, history, knowledge, and cultural identity in SSF governance?
Fricker (2007); Arias Schreiber (2022)

Procedural justice
Who participates meaningfully in governance decisions that determine SSF futures at all scales?
Blythe et al. (2022); Nakamura (2025)

Distributional justice
Who captures the benefits and bears the burdens of marine development and SSF governance arrangements?
Schlosberg (2007); Prado et al. (2024)

Layer 1

V2V Vulnerability-to-Viability Core Axis - Nayak and Berkes (2014); V2V Global Partnership (2021)

VULNERABILITY
Exposure · Sensitivity
Limited adaptive

— — — transition — — —

VIABILITY
Thriving · Rights
Self-determination

Ecological
Ecosystem health
Biodiversity
Climate resilience
Nature-based solutions
Berkes (2012)
Irfanullah (2022)

Economic
Livelihoods
Value chain equity
Market access
Diversification
Sumaila (2021)
Pradhan (2023)

Social
Gender equity
Social capital
Collective action
Community wellbeing
Collins (2023)
Mukherjee (2024)

Cultural
Identity and rights
Local knowledge
Epistemic justice
ILK and TEK
Mandal (2023)
Jentoft (2025)

Institutional
Governance reform
Legal frameworks
Blue tenure rights
Co-management
Ostrom (1990)
Nakamura (2025)

RQ1: Big Ideas and Themes
What key themes and big ideas have emerged enabling SSF transition from vulnerability to viability?

RQ2: Vulnerabilities
What types of vulnerabilities do SSF communities face and what are the driving factors?

RQ3: Transitional Pathways
What transitional pathways are identified for moving SSF communities from vulnerability to viability?

Cross-cutting mechanisms | Transdisciplinary knowledge co-production | Community agency and self-organization | Gender equity and social inclusion (GESI)

2.9.2 Layer 1: The V2V Vulnerability-to-Viability Core Axis

The innermost layer of the framework is the V2V vulnerability-to-viability core axis, developed by Nayak and Berkes (2014) in their analysis of the Chilika Lagoon social-ecological system and elaborated by the V2V Global Partnership as its organizing analytical principle (Nayak, 2020). This axis frames vulnerability and viability not as binary states but as two ends of a multidimensional spectrum across five domains: ecological, economic, social, cultural, and institutional. Communities are not simply vulnerable or viable: they occupy positions on this spectrum that vary by domain, by scale, and by the specific configuration of stressors and enabling conditions they face. The goal of SSF governance, as conceptualized by the V2V partnership, is to support communities in moving progressively along this spectrum toward viability across all five domains.

The five-domain structure of the V2V axis is analytically significant because it insists on the multidimensional character of both vulnerability and viability. A community that achieves economic viability through livelihood diversification while losing its cultural identity and ecological knowledge is not genuinely viable in the V2V sense: it has traded one form of capital for another without achieving the integrated wellbeing that genuine viability requires. Conversely, a community that maintains its cultural practices and ecological knowledge while facing deepening economic marginalization and institutional exclusion remains vulnerable despite its cultural resilience. The V2V axis demands that all five domains be addressed simultaneously, or the transition from vulnerability to viability is incomplete.

The V2V axis conceptualizes vulnerability and viability as a spectrum rather than a binary, but this should not be read as implying that movement along the spectrum is inevitably one-directional. Communities can and do move in both directions: a community that has achieved a degree of viability in one period can revert toward vulnerability if the conditions sustaining that viability erode, whether through blue economy displacement (Blythe, 2022), climate shocks, or the withdrawal of institutional support. The V2V axis is therefore best understood as describing a community's dynamic position at a given point in time, not a stage in a permanent, linear trajectory.

2.9.3 Layer 2: The Blue Justice Evaluative Lens

The middle layer of the framework is the blue justice evaluative lens, drawn from the work of Jentoft et al. (2022), Blythe et al. (2022), and the broader environmental justice tradition (Schlosberg, 2007). This layer provides the normative framework for evaluating the quality and legitimacy of SSF transitions, asking not simply whether communities are moving along the vulnerability-to-viability axis but whether the processes and outcomes of that movement are recognitionally, procedurally, and distributionally just.

Recognitional justice asks whether SSF communities are acknowledged as legitimate actors with rights, history, knowledge, and cultural identity, and whether their contributions to food security, ecosystem health, and cultural heritage are recognized in governance processes and public discourse. Procedural justice asks whether SSF communities have genuine and meaningful participation in the governance processes that determine their futures, including decisions about resource access, spatial planning, conservation initiatives, and development programs. Distributional justice asks whether the benefits and burdens of SSF governance and marine development are fairly shared across communities, genders, and generations.

The blue justice lens is positioned as the middle layer of the framework because it mediates between the systemic context provided by SES theory and the directional aspiration provided by the V2V axis. Without the justice lens, the V2V axis can be satisfied by transitions that achieve viability through processes that are technically effective but politically exclusionary or ethically problematic: a community that becomes economically viable through a blue economy development project that displaced a neighboring SSF community has not achieved genuine viability but merely transferred vulnerability from one community to another. The blue justice lens makes such transfers visible and evaluable, insisting that every step along the vulnerability-to-viability spectrum be assessed for its recognitional, procedural, and distributional justice dimensions.

2.9.4 Layer 3: The Social-Ecological Systems Theoretical Context

The outermost layer of the framework is the social-ecological systems theoretical context, drawn from Ostrom (2009) and Berkes (2012). This layer situates the entire analysis within the complex adaptive systems in which SSF communities are embedded, recognizing that vulnerability-to-viability transitions do not occur in a social or ecological vacuum but within multi-scale systems characterized by non-linear interactions, feedback loops, and emergent properties that simpler analytical frameworks cannot capture.

The SES perspective brings three specific analytical contributions to the framework. First, it provides the multi-scale context that prevents the analysis from reducing SSF transitions to purely local phenomena: the global fish price that affects a Bangladeshi fisher's income, the national legislation that determines a South African fisher's legal standing, and the international conservation agreement that shapes a Tanzanian fisher's access to coastal resources are all part of

the SES context within which local vulnerability and viability are experienced and negotiated. Second, it provides the feedback loop logic that reveals why single-issue interventions consistently fail to produce durable viability transitions: governance reforms that do not engage with ecological dynamics may improve institutional standing while ecological degradation undermines the resource base, and ecological restoration programs that do not engage with governance dynamics may improve ecosystem health while displacement by blue economy development continues. Third, it provides the emergent properties framework that explains why SSF community resilience cannot be predicted from any single component of the SES but emerges from the interactions among governance quality, ecological health, community social capital, and institutional recognition.

2.9.5 Cross-cutting Mechanisms

In addition to the three nested layers, the framework identifies three cross-cutting mechanisms that operate across all layers and all five domains of the V2V axis: transdisciplinary knowledge co-production, community agency and self-organization, and gender equity and social inclusion. These are not additional layers of the framework but enabling conditions that are present or absent to varying degrees in every SSF transition context, and whose presence or absence shapes the quality, effectiveness, and justice of transitions across all five domains.

Transdisciplinary knowledge co-production, as theorized by Lang et al. (2012) and Norström et al. (2020), is a cross-cutting mechanism because effective SSF governance in every domain requires the integration of scientific knowledge, practitioner expertise, community ecological knowledge, and policy understanding in ways that conventional disciplinary research cannot achieve alone. Community agency and self-organization is a cross-cutting mechanism

because the most durable SSF viability transitions documented in the literature are those driven by communities themselves rather than delivered by external agencies, and because community agency is both intrinsically valuable as an expression of self-determination and instrumentally valuable as the most reliable predictor of transition durability (Dias et al., 2023a; Armitage et al., 2017). Gender equity and social inclusion is a cross-cutting mechanism because gender marginalization compounds all other vulnerability types and undermines the effectiveness of governance interventions that do not take it explicitly into account, and because genuine SSF viability requires the full participation and recognition of women as producers, knowledge-holders, and governance actors rather than merely as beneficiaries of others' decisions (Collins, 2023; Franz et al., 2023).

2.9.6 From Theory to Practice

The V2V Transition Ecosystem framework guides the analysis in this study in three specific ways. First, it provides the organizational structure for the three research questions: RQ1 on big ideas and emerging themes addresses primarily the SES context and blue justice layers of the framework, asking what conceptual and normative frameworks have animated V2V webinar discourse. RQ2 on vulnerability types and drivers addresses primarily the V2V axis and SES context layers, asking what configurations of vulnerability position SSF communities at the vulnerable end of the spectrum. RQ3 on transitional pathways addresses primarily the blue justice and V2V axis layers, asking what justice-oriented and practical strategies enable movement toward viability.

Second, the framework provides the evaluative lens through which findings are interpreted in the Discussion chapter: not merely what themes, vulnerabilities, and pathways were identified,

but what they mean for the relationship among the three layers of the framework, whether the framework's posited relationships among justice, systems context, and viability direction are confirmed or complicated by the evidence, and what the five years of V2V webinar discourse add to the theoretical development of each layer. Third, the framework provides the integrative structure for the overarching argument of the Discussion chapter, which synthesizes the findings across all three research questions into a comprehensive account of the political economy of SSF transitions and the justice-viability nexus that constitutes the most theoretically significant finding of the study.

2.10 What the Literature Built and What This Study Does Next

This chapter has traced the intellectual journey of SSF scholarship from its early preoccupation with poverty and livelihoods, through its engagement with resilience and co-management, to the justice turn that defines the most recent and significant contributions to the field. Table 4 presents the paradigm evolution that this journey represents, situating each paradigm within its historical era, identifying its core analytical question, and specifying its key limitation.

Table 4

Evolution of SSF Scholarship: Paradigms, Questions, and Limitations

Era	Dominant Paradigm	Core Question	Key Limitation
1980s to 2000s	Sustainable livelihoods and poverty reduction	How can SSF communities diversify income and reduce poverty?	Focused on individual household assets; missed structural political causes of vulnerability
2000s to 2010s	Resilience and adaptive capacity	How can SSF communities absorb shocks and adapt to changing conditions?	Normalized vulnerability as a condition to be managed rather than a political arrangement to be challenged

2010s to 2020s	Governance reform and co-management	How can SSF communities be included in the governance of their resources?	Procedural inclusion without addressing structural power imbalances or colonial legacies
2020s onward	Blue justice and just transformations	Who made SSF communities vulnerable, through what arrangements, and who is accountable?	Still emerging; operationalization across diverse governance contexts remains an active challenge

***Note*.** The four paradigms represent successive layers of analytical sophistication in SSF scholarship rather than wholesale replacements of earlier frameworks. Each paradigm has added something important to the field while leaving a specific limitation that the next paradigm has sought to address. The blue justice paradigm that defines the most recent generation of SSF scholarship is the direct theoretical foundation of the blue justice evaluative lens that constitutes the middle layer of the V2V Transition Ecosystem framework.

The literature review has identified six specific gaps in the existing scholarship that no existing study has adequately addressed: the absence of longitudinal thematic synthesis, the neglect of the temporal dimension of SSF knowledge production, the failure to integrate vulnerability analysis with justice evaluation within a single framework, the lack of an empirically grounded typology of SSF transition contexts, the absence of theorization of transdisciplinary SSF knowledge platforms as knowledge commons, and the failure to systematically track and report the rate of new thematic content over time as a substantive empirical finding in its own right. This study addresses all six gaps through the systematic thematic analysis of 59 V2V Global Partnership webinar sessions conducted within the analytical structure provided by the V2V Transition Ecosystem framework.

The framework, presented in Figure 2, integrates three theoretical traditions across three nested layers: the V2V vulnerability-to-viability core axis, the blue justice evaluative lens, and the social-ecological systems theoretical context. Three cross-cutting mechanisms of transdisciplinary knowledge co-production, community agency, and gender equity operate across all layers and

domains. The framework is not merely an analytical scaffold: it is a theoretical contribution in its own right, the first integrative framework in the SSF literature that simultaneously addresses the direction of desired change, the quality and justice of transitions, and the systemic context within which those transitions must occur.

This literature review contributes to the three objectives of the study in specific and traceable ways. It establishes the conceptual foundation for the first objective by documenting the paradigm shifts, big ideas, and governance frameworks that have shaped SSF scholarship and against which the V2V webinar findings will be interpreted. It provides the analytical vocabulary for the second objective by establishing that vulnerability is not a natural condition but a political arrangement produced through specific historical and institutional processes across ecological, economic, social, cultural, and institutional dimensions. And it grounds the third objective by mapping the transitional pathways the literature identifies as most effective, providing the comparative landscape against which the pathways emerging from the V2V synthesis can be assessed, extended, and theorized.

The three layers of the V2V Transition Ecosystem framework did not precede this review. They emerged from it. The deeper the engagement with the SSF literature, the more clearly three analytical problems appeared that no single existing theory could solve simultaneously.

The first problem was directional. What are SSF communities actually trying to achieve, and across what dimensions? The work of Nayak and Berkes (2014) and Dias et al. (2023a) answered this by establishing viability as a multidimensional political achievement across five interconnected domains, providing the organizing direction of change that became the V2V vulnerability-to-viability core axis, the innermost layer of the framework.

The second problem was normative. How do we evaluate whether transitions are happening on just terms? The vulnerability literature documented what was going wrong. The governance literature offered mechanisms for how things might be fixed. But neither asked whether the processes and outcomes of transition were recognitionally, procedurally, and distributionally just. Jentoft et al. (2022), Blythe et al. (2022), and Schlosberg (2007) provided that answer through blue justice theory, which became the evaluative lens of the middle layer of the framework.

The third problem was systemic. Within what kind of world do these transitions actually happen? Justice and viability are not achieved in a vacuum. They are pursued within complex, multi-scale systems where local decisions connect to national policies, global markets, and ecological dynamics in ways that single-level analytical frameworks cannot capture. Ostrom (2009) and Berkes (2012) provided the social-ecological systems framework that became the outermost theoretical context of the tri-layered structure.

Each layer emerged as the answer to a problem the other two could not solve alone. Together they produce a framework capable of attending simultaneously to the direction of desired change, the quality and justice of transitions, and the systemic context within which those transitions must occur. The methodology through which this framework is applied to the analysis of 59 V2V webinar sessions is described in Chapter Three.

CHAPTER THREE

Methodology

3.1 How This Study Was Built

This chapter presents and justifies the methodological framework used in this study. It describes the research paradigm guiding the inquiry, the research design, the data source and selection process, the analytical method employed, and the criteria used to ensure the trustworthiness of the findings. It also addresses positionality and the ethical considerations relevant to this research. The chapter is organized to reflect the sequential logic of methodological decision-making, beginning with the broad philosophical commitments that shaped the research and moving toward the specific analytical procedures applied to the data.

3.2 Why Constructivism: Knowledge Is Made, Not Found

This study is grounded in a constructivist research paradigm. Constructivism holds that reality is not objective or fixed but is socially constructed through human experience, language, and interaction (Creswell and Poth, 2018). From this perspective, knowledge is not discovered but generated through the interpretive engagement of the researcher with the phenomena under study. This paradigm is particularly appropriate for research concerned with understanding how ideas, meanings, and frameworks are produced and contested within communities of practice, which is precisely the concern of this thesis.

The V2V thematic webinar series constitutes a site of knowledge production in which scholars, practitioners, policymakers, and community representatives collectively construct and

contest understandings of small-scale fisheries (SSF) vulnerability and viability. Analyzing these webinars through a constructivist lens allows the researcher to attend to the meanings that speakers make, the concepts they invoke, the tensions they identify, and the silences that remain, rather than treating the webinar content as a transparent window onto an objective social reality (Lincoln and Guba, 1985). This paradigm also foregrounds the role of the researcher as an active interpreter whose own positionality shapes the knowledge produced, as discussed in Section 3.7.

Constructivism aligns with the qualitative orientation of this study and with the analytical method of reflexive thematic analysis (Braun and Clarke, 2022), which similarly insists that themes do not emerge from data in a pre-formed state but are actively constructed by the researcher through a process of systematic engagement with the material. This philosophical coherence between paradigm, method, and data is a key feature of the research design.

3.3 The Research Design: Listening Carefully to Expert Discourse

This study employs a qualitative research design organized around thematic synthesis of a defined corpus of data. Qualitative research is concerned with understanding meaning, experience, and social process rather than with measuring variables or testing hypotheses (Denzin and Lincoln, 2018). It is particularly suited to exploratory and interpretive questions of the kind posed by this thesis, which seeks to understand what ideas have emerged from a sustained series of expert discussions about SSF vulnerability and viability, what vulnerabilities have been identified, and what pathways have been proposed.

The design can be characterized as documentary research combined with thematic synthesis. Documentary research involves the systematic analysis of existing documents or

recorded communications as primary data (Prior, 2003). Webinar transcripts and video recordings constitute documents in this sense: they are records of public expert discourse that can be analyzed for their content, framing, and argumentative structure. Thematic synthesis, as described by Thomas and Harden (2008), is a method for identifying, analyzing, and reporting patterns across a body of qualitative data, and is well established as an approach to synthesizing insights from multiple sources within a defined domain of inquiry.

This design is appropriate for the research questions and the data for several reasons. First, it allows the researcher to engage systematically with a large corpus of expert discourse spanning five years and 59 sessions, identifying patterns and developments that would not be visible through analysis of individual webinars in isolation. Second, it respects the integrity of the data by attending to the specific contexts, speakers, and arguments that produced each theme. Third, it is well suited to the constructivist paradigm, since thematic synthesis is explicitly interpretive and reflexive rather than neutral or mechanical.

3.4 Data Source and Selection

3.4.1 The V2V Thematic Webinar Series

The primary data source for this study is the V2V Global Partnership Thematic Webinar Series, a monthly series of public expert webinars hosted by the Vulnerability to Viability (V2V) Global Partnership at the University of Waterloo, Canada. The V2V Global Partnership is a transdisciplinary research, knowledge, and action network with over 100 members from Africa, Asia, Canada, and internationally, whose goal is to support SSF communities in transitioning from vulnerability to viability across economic, political, cultural, ecological, and social dimensions (V2V Global Partnership, 2021). The webinar series was launched in January 2021 and has

continued on a monthly basis, featuring distinguished speakers delivering presentations followed by facilitated discussions that are recorded and made publicly available through the V2V website and YouTube channel.

The webinar series constitutes an exceptionally rich data source for this study for several reasons. It is explicitly oriented toward the research questions guiding this thesis, addressing vulnerability and viability in SSF across multiple dimensions and geographies. It features speakers representing the full diversity of the V2V partnership's membership, including researchers from Africa, Asia, Latin America, the Caribbean, Canada, and internationally, as well as practitioners working directly with SSF communities and policymakers engaged in national and international SSF governance. And it spans a five-year period from 2021 to 2025, enabling analysis of how ideas, vulnerabilities, and pathways have evolved and consolidated over time.

3.4.2 What the Data Corpus Contains

The data corpus for this study comprises 59 V2V thematic webinar sessions spanning January 2021 to December 2025. Table 5 presents a complete overview of all sessions included in the corpus. For the 2021 to 2024 period, full transcripts of 48 webinar sessions were obtained and analyzed. For the 2025 period, 11 published video recordings were used as the primary data source, consistent with the analytical observation documented in Chapter Four that the 2025 webinars predominantly reinforced rather than extended the thematic framework established in prior years, a pattern specific to the period studied. The inclusion of video recordings alongside full transcripts is a methodological choice that is transparently acknowledged and reflected in the way 2025 data is presented throughout the analysis.

Table 5

Complete Data Corpus: V2V Thematic Webinar Series (2021-2025)

Year	Speaker(s)	Topic	Data
2021	**Rashid Sumaila**	Trade, IUU Fishing and Blue Justice in SSF	**TR**
	Philip Cohen	Transformation of Small-Scale Fisheries	**TR**
	Ingrid Van Putten	Legal and Illegal Supply Chains in PNG SSF	**TR**
	Silvia Salas	Vulnerability in Latin American SSF	**TR**
	Maarten Bavinck	Legal Pluralism and SSF Governance	**TR**
	Xavier Barragán	Galapagos SSF and COVID-19 Responses	**TR**
	Madhavi Hynie	Migration and SSF Communities	**TR**
	Haque & Uddin	Disaster Resilience in Bangladesh SSF	**TR**
	Derek Johnson	Dried Fish and SSF Livelihoods	**TR**
	Cornelia Nauen	SSF Academy and Capacity Building in Senegal	**TR**
	Charles Pittman	Adaptive Capacity in Caribbean SSF	**TR**
	Ana Carolina Esteves Dias	Well-being Ecosystem Services Bundles in Brazil	**TR**
2022	**Tony Charles**	Environmental Stewardship in SSF	**TR**
	Edward H. Allison	Aquatic Food Systems and SSF	**TR**
	Samdu Chetri	Happiness, Mindfulness and GNH in SSF	**TR**
	Fikret Berkes	Resilience Theory and SSF	**TR**
	Milena Arias Schreiber	Blue Justice Vocabulary and SSF	**TR**
	Jessica Blythe	Just Transformations and Ocean Equity	**TR**
	Qurban Rouhani	Decolonising South Africa Inland Fisheries	**TR**
	Haseeb Md. Irfanullah	Nature-based Solutions and Locally-led Adaptation	**TR**
	Marschke & Vandergeest	Labor Rights in Distant Water Fishing	**TR**
	Micaela Trimble	Participatory Co-management in Uruguay	**TR**
	María José Espinosa-Romero	Digital Connectivity and SSF , Pescadata App	**TR**

Year	Speaker(s)	Topic	Data
	Friday Njaya	Transboundary Fisheries Governance , Lake Chiuta	**TR**
2023	**Manas Kumar Mandal**	Community Resilience and Adaptive Research Methods	**TR**
	Andrea Collins	Gender Analysis in Resource Governance	**TR**
	Foluke Omotayo Areola	Legal Instruments and SSF Governance in Nigeria	**TR**
	Dr. Anuradha Chaudhary	Indian Philosophy and Vulnerability-Viability	**TR**
	Nicole Franz	Illuminating Hidden Harvest , FAO Global SSF Study	**TR**
	Sisir Pradhan	Social-Ecological Value Chain , Bay of Bengal	**TR**
	Dr. Evans Kwasi Arizi	Sustainable Fisheries Management in Ghana	**TR**
	Navya Vikraman Nair	Water Quality and SSF Viability , Chilika Lagoon	**TR**
	Dr. Pranaya Kumar Parida	Inland Open Water Fisheries in India	**TR**
	Trevor Swerdfager	Fisheries Management Decision-making in Canada	**TR**
	Dr. Basanta Das	Wetlands, Ganga Fisheries and Climate Change	**TR**
	Adv. Hafij Khan	COP28 Loss and Damage Fund and SSF	**TR**
2024	**Simron J. Singh**	Food and Nutrition Insecurity in the Caribbean	**TR**
	Samiya Selim	Resilience and Transitions in Bangladesh SSF	**TR**
	Kafayat Fakoya	Shell Fisheries and Mangrove Conservation	**TR**
	Aliou Sall	Market and Technology in Senegal SSF Transitions	**TR**
	Dr. Gazi Islam	Social Capital and SSF Livelihood Security	**TR**
	Jenia Mukherjee	Gender Equity and Social Inclusion , Indian Sundarbans	**TR**

Year	Speaker(s)	Topic	Data
	Shehu Latunji Akintola	West Africa SSF Vulnerabilities and Viability Pathways	**TR**
	Deborah Prado	Blue Injustices and Conflict Transformation, Latin America	**TR**
	Dr. Bala Raju Nikku	Disaster Resilience of SSF, Andhra Pradesh, India	**TR**
	Priyadarshi Patnaik	Green Energy, Technology and Resilience in SSF	**TR**
	Vipul Singh	Historical Dimensions of Inland Fisheries in Bihar	**TR**
	V2V Highlights	Four-Year Retrospective, V2V Webinar Series	**TR**
2025	**Svein Jentoft**	What is Transdisciplinary? Think Jazz!	**VR**
	Berkes & Franz	Governing for Transformation towards Sustainable SSF	**VR**
	Richard Nyiawung	Transboundary Governance for SSF, Gulf of Guinea	**VR**
	John Kurien	Envisioning Marine Bioregionalism for SSF	**VR**
	Indah Susilowati	Blue Economy, Blue Growth and Blue Justice, Indonesia	**VR**
	Raymond Ayilu	Trade in Small Fish in West Africa, Fish4Food Systems	**VR**
	Amalendu Jyotishi	Dispossession in the Coastal Space, Karnataka, India	**VR**
	Julia Nakamura	Transforming International Governance through SSF Guidelines	**VR**
	Dr. Ella-Kari Muhl	Access, Rights and Equity for Blue Tenure Transitions	**VR**
	Hari Ramalu Ragavan	ESG Risks and Opportunities in Blue Economy, Malaysia	**VR**
	Jewel Das	Blue Transitions in the Crowded Coast of Bangladesh	**VR**
TR = Full Transcript (2021-2024) **VR** = Video Recordings (2025) Total: 59 sessions | 48 transcripts | 11 video recordings			

Note. TR = Full Transcript; VR = Video Recordings.

3.4.3 Rationale for Selection

The decision to use the V2V thematic webinar series as the primary data source for this study requires justification, since single-source designs carry the risk of producing findings that are limited by the perspectives of that source. Three justifications are offered. First, the V2V webinar series is explicitly and intentionally designed to represent the diversity of global SSF scholarship and practice, featuring speakers selected to cover different regions, disciplines, methodological approaches, and types of expertise. This diversity is a structural feature of the series rather than an accidental property.

Second, the series spans five years and 59 sessions, providing a temporal depth that enables analysis of thematic evolution and consolidation that would not be possible with a shorter or more constrained data corpus. Third, the webinar series is the primary knowledge mobilization vehicle of the V2V Global Partnership itself, making it a particularly appropriate source for a thesis embedded within the V2V research program. Using the webinar series as data allows this thesis to contribute to the V2V partnership's own reflective understanding of what it has learned and produced over five years of knowledge generation.

3.5 Analytical Method: Reflexive Thematic Analysis

3.5.1 Overview of the Method

The analytical method employed in this study is reflexive thematic analysis (RTA) as developed and described by Braun and Clarke (2022). Reflexive thematic analysis is a method for identifying, analyzing, and reporting patterns of meaning within qualitative data. It is grounded in a constructivist epistemology and is distinguished from other forms of thematic analysis by its explicit insistence that themes do not reside in data waiting to be discovered but are actively

constructed by the researcher through a process of systematic, reflexive engagement with the material (Braun and Clarke, 2022). Braun and Clarke describe RTA as a theoretically flexible method that can be applied across a wide range of qualitative data types and research questions, making it well suited to the present study, which involves a diverse corpus of expert discourse spanning multiple topics, disciplines, and geographic contexts.

While RTA holds that codes and themes are actively constructed through the researcher's engagement with the data, this construction in the present study was directly grounded in, and remains attributable to, the specific expertise, arguments, and empirical evidence offered by individual V2V webinar speakers. Each code presented in this thesis emerged from, and is credited to, the specific researchers, practitioners, and community representatives whose presentations introduced or most fully developed it. The codebook in Appendix A documents this attribution for every code identified.

3.5.2 The Six-Phase Analytical Process

Braun and Clarke (2022) describe reflexive thematic analysis as a six-phase process. It is important to note that these phases are not mechanical steps to be followed sequentially but a flexible framework for recursive, iterative analytical engagement with the data. Table 6 illustrates the analytical process applied in this study. The six phases are described below.

Table 6

Six-Phase Analytical Process Applied in This Study (Braun & Clarke, 2022)

Table 6 | Six-Phase Analytical Process (Braun & Clarke, 2022)		
DATA CORPUS: 59 V2V Thematic Webinar Sessions (2021-2025) | 48 Full Transcripts + 11 Video Recordings		
	▼	

Phase 1	**Familiarisation with the Data** Full reading of all 48 transcripts; notes on recurring ideas; immersive engagement before coding begins
	▼
Phase 2	**Generating Initial Codes** Inductive, semantic-level coding; meaningful units identified per webinar; codes aligned to 3 RQs
	▼
Phase 3	**Searching for Themes** Related codes grouped into candidate themes; iterative movement between codes and full data
	▼
Phase 4	**Reviewing Themes** Themes tested against coded data and full corpus; merging, dividing, and discarding as appropriate
	▼
Phase 5	**Defining and Naming Themes** Each theme named and defined; hierarchical relationships established; Core / Emerging / New status assigned
	▼
Phase 6	**Producing the Report** 74 codes across 3 RQs presented as analytical narrative in Chapter 4 (Results)
	▼
OUTPUT: 74 Codes across 3 Research Questions | Thematic Narrative (Chapter 4)	

Note. The six phases follow Braun and Clarke (2022). The process is recursive and iterative rather than strictly linear.

The first phase involved familiarization with the data. Each of the 48 full webinar transcripts was read in its entirety, with notes made on initial impressions, recurring ideas, and potentially significant content in relation to the three research questions. This phase of immersive reading was essential for developing the deep familiarity with the data that reflexive thematic analysis requires and was conducted before any systematic coding began.

The second phase involved generating initial codes. Drawing on the familiarization notes and re-reading of the transcripts, initial codes were generated inductively for each webinar, meaning they were derived from the content of the data rather than imposed from a pre-existing theoretical framework (Thomas, 2006). Each code captured a meaningful unit of content relevant to one or more of the three research questions.

The third phase involved searching for themes. Related codes were grouped and organized into potential themes, with attention to how codes clustered around recurring patterns of meaning across webinars and across years. This phase involved considerable iterative movement between the codes and the raw data.

The fourth phase involved reviewing themes. Candidate themes were reviewed in relation to both the coded data and the full data corpus, to assess their internal coherence, distinctiveness, and adequacy as representations of the patterns present in the data. Some themes were merged where they overlapped significantly; others were divided where they contained internally distinct patterns; and some were discarded where they were insufficiently supported by the data.

The fifth phase involved defining and naming themes. Each retained theme was given a clear, analytically meaningful name and a concise definition. This phase also involved determining hierarchical relationships among themes, identifying which were Core themes present across multiple years, which were Emerging themes, and which were New themes introduced in specific years.

The sixth phase involved producing the report, which in this thesis takes the form of the Results chapter (Chapter Four), in which the themes are presented through an analytical narrative

that draws on specific examples from the webinar data to illustrate each theme and demonstrate its significance.

3.5.3 Codebook Development

Consistent with Braun and Clarke's (2022) description of codebook thematic analysis as a variant of RTA suited to larger data corpora, this study developed a structured codebook to organize and document the codes and themes identified across the 59 webinar sessions. The codebook records each code, its definition, the years in which it appeared, the speakers and sessions from which it was drawn, and key evidence supporting its identification. A distinctive feature of the codebook is its temporal dimension: each code is tracked across the five years of the webinar series, enabling analysis of which themes were consistently present throughout the series, which emerged and developed over time, and which were introduced in specific years. The complete codebook is provided in Appendix A of this thesis.

In this way, the codebook does more than organize the analytic structure of the study: it gives explicit credit to the individual speakers whose insights generated each code, ensuring that the researcher's analytic construction of themes remains visibly grounded in, and attributable to, the intellectual contributions of the V2V webinar presenters.

3.5.4 Temporal Analysis

A distinctive feature of the analytical approach in this study is its attention to temporal patterns in the data. Rather than treating the 59 webinar sessions as a single undifferentiated corpus, the analysis systematically tracked when each code appeared and how its treatment evolved across the five years of the series. This temporal dimension drew on the logic of

longitudinal qualitative research, which attends to how phenomena change, develop, or consolidate over time (Neale, 2019). The temporal analysis revealed a coherent developmental arc in the V2V webinar series, moving from foundational conceptual mapping in 2021, through theoretical elaboration in 2022, to evidence consolidation and policy engagement in 2023, to action-oriented and justice-focused frameworks in 2024, and a marked decline in new thematic content by 2025. This finding about the temporal evolution of SSF knowledge production provides key empirical support for the framework and findings developed later in this thesis..

3.6 Trustworthiness and Rigor

In qualitative research, the criteria of validity and reliability used in quantitative research are replaced by criteria of trustworthiness appropriate for qualitative inquiry (Lincoln and Guba, 1985). Lincoln and Guba (1985) identify four criteria of trustworthiness: credibility, transferability, dependability, and confirmability.

Credibility refers to the extent to which the findings accurately represent the perspectives present in the data, and is the qualitative parallel of internal validity. Credibility in this study was supported through prolonged engagement with the data, involving full reading of each transcript and repeated return to the data during the analytical process, alongside rich, thick description in the presentation of findings, with specific references to speakers and sessions allowing the reader to trace the connection between data and analytical claims.

Transferability refers to the extent to which the findings may be applicable in other contexts. Rather than claiming statistical generalizability, qualitative researchers provide sufficient contextual detail to enable readers to assess the relevance of the findings to their own contexts

(Lincoln and Guba, 1985). This study supports transferability through detailed description of the data corpus and the analytical process.

Dependability refers to the consistency and stability of the research process and is the qualitative parallel of reliability. Dependability in this study was supported through the systematic documentation of the analytical process in the codebook, which provides a transparent record of how codes were generated, defined, and organized into themes.

Confirmability refers to the extent to which the findings reflect the data rather than the researcher's personal biases and is the qualitative parallel of objectivity. Confirmability was supported through reflexive engagement with the data and the analytical process, including explicit acknowledgment of the researcher's positionality as described in Section 3.7, and through grounding all analytical claims in specific, traceable references to the data.

3.7 Ethical Considerations

This study involved the analysis of publicly available data in the form of webinar transcripts and video recordings published by the V2V Global Partnership on its website and YouTube channel. As the data were already in the public domain and produced for the explicit purpose of knowledge dissemination, this study does not raise significant ethical concerns related to privacy, consent, or harm to research participants. No formal ethics review was required, as no primary data collection involving human participants was undertaken.

However, several ethical considerations are acknowledged. The researcher has treated speakers' contributions with care and respect, representing their arguments accurately and in context. The researcher is also aware of the power dynamics inherent in academic analysis, in

which scholars from the Global North may analyze the knowledge of researchers and communities from the Global South in ways that reinscribe knowledge hierarchies (Tuhiwai Smith, 2012). The researcher has sought throughout to foreground the voices, frameworks, and analytical concepts offered by speakers from Africa, Asia, Latin America, and the Caribbean rather than filtering these through a Western academic lens.

3.8 Limitations of the Study

This study has several limitations that should be acknowledged. First, the analysis is based solely on the V2V thematic webinar series, which, while rich and diverse, represents the perspectives of speakers selected by the V2V Global Partnership. Voices from SSF communities themselves, as distinct from researchers and practitioners who work with those communities, are not directly present in the data. Future research might complement this study with primary data generated through direct engagement with SSF community members.

Second, reflexive thematic analysis is an interpretive practice whose outputs reflect the analytical choices and positionality of the researcher. A different researcher might have constructed somewhat different themes from the same data. This limitation is inherent to the method and is addressed through the transparency and reflexivity described in Sections 3.6 and 3.7.

Third, as a researcher embedded within the V2V Global Partnership at the University of Waterloo and personally connected to Bangladesh as one of the primary geographic contexts of the webinar series, the researcher occupies a position of proximity to the data that may have shaped what was attended to and how it was interpreted. While the systematic codebook, the reflexive

practices described in Section 3.7, and the consistent engagement with all geographic and thematic contexts across the series collectively minimize this influence, it cannot be entirely eliminated, and should be understood as an inherent condition of situated qualitative research rather than a flaw in the analytical approach.

Fourth, the V2V webinar series is conducted entirely in English, which introduces a linguistic and epistemological bias into both the knowledge it produces and the knowledge this study synthesizes. Concepts, governance arrangements, and community experiences embedded in local languages and knowledge traditions across Africa, Asia, Latin America, and the Caribbean may not be fully translatable into English academic discourse, and the insights of speakers whose primary language is not English may be partially filtered through the demands of academic English expression. This linguistic limitation is a structural feature of the data source rather than an analytical choice, but it places real constraints on the comprehensiveness and cultural inclusivity of the knowledge produced.

3.9 Chapter Summary

This chapter has described and justified the methodological framework employed in this study. The research is grounded in a constructivist paradigm and employs a qualitative design organized around reflexive thematic analysis of a corpus of 59 V2V thematic webinar sessions spanning 2021 to 2025. The analytical process followed the six-phase framework described by Braun and Clarke (2022), showcased in Table 6, with a structured codebook developed to document and organize the 74 codes and themes identified across the data corpus, presented in full in Appendix A. The temporal dimension of the analysis, which tracked the appearance and evolution of codes across five years, is a distinctive feature of the methodological approach.

Trustworthiness was addressed through the criteria of credibility, transferability, dependability, and confirmability established by Lincoln and Guba (1985), and the researcher's positionality and ethical commitments were explicitly acknowledged. The findings produced through this methodology are presented in Chapter Four.

CHAPTER FOUR

Findings: What Five Years of Expert SSF Discourse Revealed

This chapter presents the findings of a thematic analysis of 59 V2V Global Partnership thematic webinar sessions spanning January 2021 to December 2025. The analysis was guided by three research questions concerning the big ideas emerging from V2V webinar discussions, the types of vulnerabilities faced by small-scale fisheries (SSF) communities, and the transitional pathways identified as means of moving SSF from vulnerability to viability. Codes were generated inductively from the webinar transcripts and video recordings following Braun and Clarke's (2022) reflexive thematic analysis framework within a constructivist paradigm. A total of 74 codes were identified across the five-year period, organized into three thematic clusters corresponding to the three research questions. It should be noted that citations in this chapter refer to individual speakers and their respective webinar sessions as primary data sources, consistent with the qualitative nature of this research.

The results are presented in three sections. Each section opens with an overview of the thematic landscape for its respective research question, followed by a detailed discussion of the themes that emerged, with specific reference to the webinar speakers and sessions from which they were drawn. Throughout the chapter, attention is paid to the temporal dimension of the analysis, specifically how themes evolved, deepened, or consolidated across the five years. A key finding running across all three sections is that by 2025, new sessions predominantly reinforced rather than departed from the patterns established in prior years, suggesting that the core thematic framework had stabilized within the period studied. Table 7 provides a complete overview of all 74 codes organized by research question, and Table 8 maps the thematic evolution of the series across all five years.

Table 7

Complete Overview of All 74 Codes Organized by Research Question and Year (2021-2025)

	Code / Theme	2021	2022	2023	2024	2025	Status	Years
RQ1 | Big Ideas and Emerging Themes (29 codes)								
	Blue Justice and Equity	✓	✓	✓	✓	✓	**CORE**	5 / 5 yrs
	Viability as Multidimensional	✓	✓	✓	✓	✓	**CORE**	5 / 5 yrs
	Transdisciplinary Knowledge Co-production	✓	✓	✓	✓	✓	**CORE**	5 / 5 yrs
	Governance Reform and Co-management	✓	✓	✓	✓	✓	**CORE**	5 / 5 yrs
	Gender as Cross-cutting Dimension	✓	✓	✓	✓	✓	**CORE**	5 / 5 yrs
	Community Agency and Self-organization	✓	✓	✓	✓	✓	**CORE**	5 / 5 yrs
	Crisis as Opportunity / COVID as Catalyst	✓	✓	✓	✓		**CORE**	4 / 5 yrs
	Well-being Ecosystem Services (WEBS)	✓	✓	✓	✓		**CORE**	4 / 5 yrs
	Resilience as Complement to Vulnerability		✓	✓	✓	✓	**EMERGING**	4 / 5 yrs
	Blue Economy vs. Blue Justice Tension		✓	✓	✓	✓	**EMERGING**	4 / 5 yrs
	Just Transformations Framework		✓		✓	✓	**EMERGING**	3 / 5 yrs
	Epistemic Justice, Naming SSF Injustice		✓		✓	✓	**EMERGING**	3 / 5 yrs
	Digital Connectivity and Collective Action		✓		✓	✓	**EMERGING**	3 / 5 yrs
	Happiness, Mindfulness and Inner Capacity		✓	✓			**EMERGING**	2 / 5 yrs
	Nature-based Solutions for SSF		✓	✓			**EMERGING**	2 / 5 yrs
	Transboundary Fisheries Governance		✓	✓		✓	**EMERGING**	3 / 5 yrs

	Code / Theme	2021	2022	2023	2024	2025	Status	Years
	Illuminating Hidden Harvest, Global Evidence			✓	✓		**EMERGING**	2 / 5 yrs
	Social-Ecological Value Chain Perspective			✓	✓	✓	**EMERGING**	3 / 5 yrs
	Evidence-Policy Chain Complexity			✓	✓	✓	**EMERGING**	3 / 5 yrs
	Non-traditional / Adaptive Research Methodology			✓	✓	✓	**EMERGING**	3 / 5 yrs
	Climate Loss and Damage Financing			✓	✓		**EMERGING**	2 / 5 yrs
	Historical Dimensions of Fisheries Governance				✓		**NEW**	1 / 5 yrs
	Island Social Metabolism and Food Resilience				✓		**NEW**	1 / 5 yrs
	Disaster Justice and Community Science				✓		**NEW**	1 / 5 yrs
	GESI, Gender Equity and Social Inclusion				✓		**NEW**	1 / 5 yrs
	Blue Injustice and Conflict Transformation				✓		**NEW**	1 / 5 yrs
	Social Capital and SSF Livelihood Security				✓		**NEW**	1 / 5 yrs
	Marine Bioregionalism					✓	**NEW**	1 / 5 yrs
	Blue Tenure and Marine Tenure Rights					✓	**NEW**	1 / 5 yrs
RQ2 | Vulnerabilities Faced by SSF Communities (18 codes)								
	Economic and Market Vulnerability	✓	✓	✓	✓	✓	**CORE**	5 / 5 yrs
	Climate and Environmental Vulnerability	✓	✓	✓	✓	✓	**CORE**	5 / 5 yrs
	Institutional and Governance Vulnerability	✓	✓	✓	✓	✓	**CORE**	5 / 5 yrs

	Code / Theme	2021	2022	2023	2024	2025	Status	Years
	Food and Nutrition Security Vulnerability	✓	✓	✓	✓	✓	**CORE**	5 / 5 yrs
	Social and Gender Vulnerability	✓	✓	✓	✓	✓	**CORE**	5 / 5 yrs
	Migration and Displacement	✓	✓		✓	✓	**CORE**	4 / 5 yrs
	Pandemic Disruption (COVID-19)	✓	✓	✓	✓		**CORE**	4 / 5 yrs
	Legal and Supply Chain Vulnerability	✓	✓	✓			**CORE**	3 / 5 yrs
	Labor Exploitation and Forced Labor		✓		✓	✓	**EMERGING**	3 / 5 yrs
	Colonial and Apartheid Legacy Exclusion		✓	✓	✓	✓	**EMERGING**	4 / 5 yrs
	Blue Economy Displacement Risks		✓		✓	✓	**EMERGING**	3 / 5 yrs
	Data Poverty and Institutional Gaps		✓	✓	✓		**EMERGING**	3 / 5 yrs
	Climate-induced Ecosystem Degradation		✓	✓	✓	✓	**EMERGING**	4 / 5 yrs
	Psychological and Spiritual Vulnerability		✓	✓			**EMERGING**	2 / 5 yrs
	Procedural and Distributive Blue Injustices				✓	✓	**EMERGING**	2 / 5 yrs
	Water Quality Degradation			✓			**NEW**	1 / 5 yrs
	Disaster Vulnerability in Coastal SSF				✓		**NEW**	1 / 5 yrs
	Food and Nutrition Insecurity in SIDS				✓		**NEW**	1 / 5 yrs
RQ3 | Transitional Pathways to Viability (27 codes)								
	Livelihood Diversification	✓	✓	✓	✓	✓	**CORE**	5 / 5 yrs
	Adaptive Co-management	✓	✓	✓	✓	✓	**CORE**	5 / 5 yrs

	Code / Theme	2021	2022	2023	2024	2025	Status	Years
	Collective Action and Self-organization	✓	✓	✓	✓	✓	**CORE**	5 / 5 yrs
	Women's Empowerment Initiatives	✓	✓	✓	✓	✓	**CORE**	5 / 5 yrs
	Policy and Governance Reform	✓	✓	✓	✓	✓	**CORE**	5 / 5 yrs
	Knowledge Co-production Networks	✓	✓	✓	✓	✓	**CORE**	5 / 5 yrs
	Reframing SSF Narratives	✓	✓	✓	✓	✓	**CORE**	5 / 5 yrs
	Local Knowledge Preservation	✓	✓	✓	✓	✓	**CORE**	5 / 5 yrs
	Financial Tools and Microcredit	✓	✓	✓	✓		**CORE**	4 / 5 yrs
	Legal Reform and Rights-based Approaches		✓	✓	✓	✓	**EMERGING**	4 / 5 yrs
	Blue Justice Advocacy		✓		✓	✓	**EMERGING**	3 / 5 yrs
	Community Environmental Stewardship		✓	✓	✓	✓	**EMERGING**	4 / 5 yrs
	Resilience-building Through Diversity		✓	✓	✓	✓	**EMERGING**	4 / 5 yrs
	Digital Technology for Collective Action		✓		✓	✓	**EMERGING**	3 / 5 yrs
	Evidence-based Policy (IHH and Research)			✓	✓	✓	**EMERGING**	3 / 5 yrs
	Nature-based Solutions		✓	✓			**EMERGING**	2 / 5 yrs
	Locally led Adaptation		✓	✓			**EMERGING**	2 / 5 yrs
	Labor Rights Reform and Certification		✓		✓		**EMERGING**	2 / 5 yrs
	Intergenerational and Indigenous Knowledge	✓		✓	✓	✓	**EMERGING**	4 / 5 yrs
	Fisher Self-monitoring and Participatory Data				✓	✓	**EMERGING**	2 / 5 yrs
	Grassroots Mobilization				✓	✓	**EMERGING**	2 / 5 yrs

	Code / Theme	2021	2022	2023	2024	2025	Status	Years
	Sustainable Stock Management			✓			**NEW**	1 / 5 yrs
	Social Capital Building through CBFM				✓		**NEW**	1 / 5 yrs
	Green Energy and ICT as Resilience Drivers				✓		**NEW**	1 / 5 yrs
	Loss and Damage Financing as SSF Pathway			✓			**NEW**	1 / 5 yrs
	Island Circular Metabolism				✓		**NEW**	1 / 5 yrs
	Transboundary Co-management					✓	**NEW**	1 / 5 yrs
CORE = Present 3-5 years **EMERGING** = Present 2-4 years **NEW** = Present 1 year ✓ = Code present that year Total codes: 74								

Note. Checkmarks indicate the code was identified in that year's webinar sessions. Status classifications follow Braun and Clarke (2022): Core = present across 3-5 years; Emerging = present across 2-4 years; New = introduced in one year.

Table 8

Thematic Evolution of the V2V Webinar Series Across Five Years (2021-2025)

Year	Thematic Focus	Key Themes Introduced or Reinforced	Phase
2021	**Mapping Vulnerabilities**	Blue justice and equity; Viability as multidimensional; Well-being ecosystem services; COVID-19 as catalyst; Co-management; Gender cross-cutting	**Foundation**
2022	**Theorizing Solutions**	Resilience as complement; Just transformations; Nature-based solutions; Labor rights; Digital connectivity; Happiness and inner capacity	**Theory-Building**
2023	**Consolidating Evidence**	Illuminating Hidden Harvest; Loss and damage financing; Inland fisheries; Water quality; Sustainable stock management; Evidence-policy chain	**Evidence and Policy**
2024	**Action and Justice**	GESI framework; Conflict transformation; Disaster justice; Colonial history; Island	**Action and Justice**

Year	Thematic Focus	Key Themes Introduced or Reinforced	Phase
		metabolism; CBFM success stories; Social capital	
2025	**Stabilizing Framework**	Marine bioregionalism (NEW); Blue tenure rights (NEW); ESG for SSF (NEW); All prior themes confirmed and reinforced	**Stabilizing**

Note. Each phase represents the dominant thematic orientation of that year's webinar series. The series moves from foundational mapping through theory-building, evidence consolidation, and action-justice frameworks to a marked stabilization of new thematic content by 2025.

RQ1 | Big Ideas and Emerging Themes

What key themes and big ideas have emerged from V2V webinar discussions enabling SSF transition from vulnerability to viability?

4.1 What Five Years of Expert Discourse Produced

The first research question sought to identify the overarching ideas and conceptual frameworks that have animated V2V webinar discussions over the five-year period. The analysis identified 29 codes under RQ1, of which nine are classified as Core themes present across three to five years of the series, eleven as Emerging themes, and nine as New themes introduced in later years. Together, these codes reveal a rich and increasingly sophisticated body of thinking about what it means for SSF communities to transition from vulnerability to viability and what enabling conditions make such a transition possible.

The dominant intellectual thread running through all five years is a fundamental challenge to narrow, economistic understandings of viability. From the earliest webinars in 2021, speakers consistently argued that viability for SSF communities cannot be reduced to income and catch volumes alone, but must encompass political, cultural, ecological, social, and spiritual dimensions of human life. This multidimensional conception of viability served as the conceptual foundation

upon which all other big ideas were built. Alongside this, the concept of blue justice emerged as perhaps the single most persistent and powerful theme across the entire series, appearing in every year from 2021 to 2025.

4.1.1 Vulnerability, Viability, and Transition as Understood Through the Webinars

One of the most revealing dimensions of the V2V webinar series is the way in which speakers collectively refined and deepened the meaning of the three concepts at the heart of this study. Rather than treating vulnerability, viability, and transition as fixed analytical categories imported from published literature, the webinar discourse treated them as living concepts whose meanings were actively shaped through engagement with communities, governance failures, and experiences of change across diverse geographic and cultural contexts.

Vulnerability, as understood across the 59 webinar sessions, is not a condition that communities find themselves in by accident or misfortune. It is a condition that was produced. Speakers consistently refused the language of natural disaster, environmental determinism, and developmental deficit in favor of a structural understanding that located the roots of SSF precarity in colonial dispossession, governance exclusion, market asymmetry, and institutional neglect. Rashid Sumaila (2021) traced vulnerability to the structural inequities of global fish trade and illegal fishing that extract value from SSF communities before it can accumulate locally. Qurban Rouhani (2022) showed how vulnerability in South African inland fisheries was produced not by ecology but by apartheid-era legislation that criminalized artisanal fishing and was never fully dismantled after independence. Vipul Singh (2024) documented how the Bihar Jalkar water tax system, inherited from British colonial administration, dispossessed the Mala fishing community of water rights they had held for generations, producing a vulnerability that persisted for over two

centuries. Across the series, vulnerability was consistently understood as a political arrangement that can be unmade through political action, not a natural condition that must simply be endured.

The concept of viability has notably lacked a precise and universally agreed definition in the SSF literature, with scholars acknowledging that the term is used in diverse and sometimes contradictory ways across disciplinary and regional contexts (Nayak and Berkes, 2014; Dias et al., 2023a). The V2V webinar series, through five years of sustained expert discourse, offers a collective understanding of viability that goes some way toward filling this definitional gap. Viability, as understood across the webinar series, goes far beyond economic survival. From the earliest sessions, speakers insisted that genuine viability requires communities to maintain their livelihoods, cultural identities, ecological knowledge, governance participation, and intergenerational continuity simultaneously and on their own terms. Ana Carolina Esteves Dias (2021) established this multidimensional conception through the Well-being Ecosystem Services Bundles framework, arguing that viability is realized when communities can draw on the full range of material, cultural, and relational goods that healthy ecosystems and just governance systems make available. Samdu Chetri (2022) deepened this by introducing happiness, mindfulness, and the Gross National Happiness framework as dimensions of viability that economic and ecological metrics consistently miss. Fikret Berkes and Nicole Franz (2025) synthesized this understanding across the full series, arguing that the next generation of SSF management must be oriented not merely toward sustainable resource use but toward the full flourishing of fishing communities as culturally distinct, politically recognized, and ecologically knowledgeable peoples. Across the series, viability was understood not as a destination to be delivered by external actors but as a condition that communities must be enabled to achieve for themselves.

Transition, as understood across the webinar series, is neither linear nor inevitable. It is a contested, political, and often incomplete process through which communities assert their rights, build their capacities, and transform the governance arrangements that constrain them. Speakers consistently rejected the idea that transition could be reduced to a technical intervention or a program to be implemented. Trevor Swerdfager (2023) illustrated through Canadian fisheries management how governance decisions that appear technical are in fact deeply political, shaping who benefits and who bears costs in ways that rarely favor SSF communities. Deborah Prado (2024) showed through 73 Latin American case studies that the most effective transitions were driven not by external programs but by active social mobilization, community-led monitoring, and grassroots advocacy that transformed both governance arrangements and the power relationships underlying them. Svein Jentoft (2025) captured the essence of transition as understood across the series when he argued through his transdisciplinarity as jazz metaphor that genuine transformation requires improvisational responsiveness, collective learning, and the willingness to depart from established scripts in ways that rigid technical frameworks cannot accommodate. Transition, in this understanding, is not something that happens to SSF communities. It is something they make, together, over time, and often against significant resistance.

4.2 Core Themes

4.2.1 Blue Justice and Equity: The Concept That Reframed Everything

Blue justice emerged as the most foundational and cross-cutting big idea of the V2V webinar series, present in all five years and discussed by speakers from every region covered by the partnership. The concept was introduced in the 2021 series through discussions of trade equity and illegal, unreported, and unregulated (IUU) fishing (Sumaila, 2021), but received its most

sustained theoretical treatment in 2022. Milena Arias Schreiber (2022) presented a 13-concept glossary of justice-oriented vocabulary specifically designed for SSF advocacy, introducing terms such as fisherphobia, eco-bullying, and industrial pillaging as tools for naming the structural injustices that SSF communities face but have historically lacked language to articulate. This contribution was framed as an act of epistemic justice, giving communities the words they need to make their vulnerabilities visible to policymakers and the public.

Jessica Blythe (2022) deepened the blue justice discourse by introducing the just transformations framework, which insists that any transition toward ocean sustainability must be evaluated along three axes: recognitional justice, which involves acknowledging who SSF communities are; procedural justice, which ensures they have genuine voice in governance processes; and distributional justice, which ensures benefits and burdens are fairly shared. Critically, Blythe also introduced what she termed the dark side of transformation, a warning that transformation narratives can be co-opted by powerful actors, leading to outcomes that entrench rather than reduce inequality.

By 2024, blue justice had moved from conceptual framing toward operational application. Deborah Prado (2024) presented findings from a systematic review of 73 case studies across ten Latin American countries, mapping nine typologies of blue injustice and showing that the most prevalent forms were distributive injustice, meaning restricted access to fishing territories, and social injustice, including the marginalization of women and the abuse of indigenous rights. Prado also demonstrated that active social mobilization by SSF communities, including protests, litigation, and participatory monitoring, was the most common and effective strategy for contesting blue injustice and triggering governance change.

In 2025, the blue justice discourse continued to consolidate. Indah Susilowati (2025) presented indicators measuring the transition from blue growth to blue justice in the coastal-marine fisheries systems of Central Java, Indonesia, while Ella-Kari Muhl (2025) extended the conversation to marine tenure, arguing that the displacement of SSF communities by conservation initiatives such as the global 30x30 target represents a new and underappreciated form of blue injustice. The December 2025 webinar on Bangladesh reinforced these themes through the lens of coastal megaprojects and privatization, affirming that blue justice must be embedded in the design of development initiatives rather than treated as an afterthought.

4.2.2 Viability as Multidimensional: More Than Fish and Money

Closely related to blue justice is the idea that viability itself must be understood as inherently multidimensional. Ana Carolina Esteves Dias (2021) introduced the concept of Well-being Ecosystem Services Bundles (WEBS), arguing that the ecosystem services that matter most to SSF communities are not those that can be straightforwardly monetized but those that support specific dimensions of well-being, including nutrition, cultural identity, social cohesion, and spiritual connection. Edward Allison (2022) reinforced this perspective from a global food systems angle, arguing that aquatic food systems remain chronically underfunded and undermeasured precisely because their contributions to nutrition, livelihoods, and culture cannot be captured by narrow economic metrics.

Nicole Franz (2023) provided perhaps the most compelling empirical evidence for multidimensional viability, presenting findings from the Illuminating Hidden Harvest study, a 58-country investigation showing that small-scale fisheries employ approximately 40 percent of the global capture fishery workforce, support 500 million people in food and livelihood terms, engage

45 million women, and generate approximately 77 billion USD in value annually, most of which remains invisible to official data systems. By 2024 and 2025, the multidimensional conception of viability had been extended to encompass resilience (Patnaik, 2024), social metabolism (Singh, 2024), and corporate sustainability (Ragavan, 2025), each adding new dimensions to an already rich conceptual landscape.

4.2.3 Transdisciplinary Knowledge Co-production: Who Gets to Know?

A defining methodological and epistemological commitment of the V2V webinar series is the insistence that knowledge about SSF vulnerability and viability must be co-produced acr oss disciplinary and community boundaries. This theme was present from the first year and remained central through 2025. Madhavi Hynie (2021) demonstrated how migration research could be enriched by attending to the gendered and social dimensions of mobility that disciplinary boundaries tend to obscure. Fikret Berkes (2022) provided the most theoretically developed treatment of resilience thinking as a transdisciplinary bridge, showing how concepts from ecology, psychology, and community studies could be synthesized into a coherent framework for understanding SSF adaptive capacity.

In 2023, Manas Kumar Mandal brought a distinctly methodological contribution, presenting non-traditional research approaches including brain-swarming, participatory mapping, and collective intelligence exercises as tools for generating knowledge with SSF communities rather than about them. Svein Jentoft (2025) provided the most memorable articulation of this commitment through his transdisciplinarity as jazz metaphor, arguing that good transdisciplinary research requires both technical skill and improvisational responsiveness that rigid disciplinary

frameworks cannot provide, and that the SSF Guidelines implicitly endorse this form of knowledge production by calling for research that is holistic, bottom-up, and locally grounded.

4.2.4 The Rules Need Rewriting

The inadequacy of existing governance frameworks for SSF and the need for fundamental reform was one of the most consistently emphasized themes across all five years. Maarten Bavinck (2021) introduced the concept of legal pluralism as a governance reality that SSF communities navigate daily, often without formal recognition or protection, arguing that effective SSF governance must work with multiple overlapping legal systems rather than imposing a single formal framework. Micaela Trimble (2022) illustrated participatory co-management through the fisheries councils of Uruguay, showing how the POPA participatory research methodology enabled fishers to become active co-designers of management plans. Foluke Areola (2023) demonstrated the governance reform challenge from a legal perspective, analyzing how Nigeria's fisheries legislation fails to even define small-scale fisheries, leaving SSF communities without formal legal status.

The most historically grounded treatment of governance reform came from Vipul Singh (2024), who traced the dispossession of the Mala fishing community of Bihar, India, from the colonial introduction of Jalkar water taxes in the 19th century through to independence and beyond. The Bihar Fish Jalkar Management Act of 2006, which granted exclusive leasing rights to the Mala community, was presented as a successful example of decolonial governance reform, with fish production in East Champaran subsequently doubling from 400 to 846 metric tons between 2013 and 2023. Julia Nakamura (2025) placed these national governance reform stories in global context by examining the FAO SSF Guidelines as an international legal instrument whose

human rights-based approach provides a normative framework that national governments can draw upon to legitimate SSF-friendly policy reform.

4.2.5 Gender Is Not a Program, It Is a Structure

Gender was identified as a cross-cutting dimension of SSF vulnerability and viability in every year of the webinar series, though the sophistication of the analysis deepened considerably over time. In the early years, gender was primarily discussed in terms of women's participation in SSF livelihoods and their disproportionate exposure to vulnerability (Hynie, 2021). By 2023, the gender analysis had become structurally oriented. Andrea Collins (2023) argued that gender should not be treated as a synonym for women but as a relational social structure, a set of norms, roles, and power relations shaping the positions of all actors in SSF systems, and introduced the concept of gender-transformative approaches that challenge the underlying gender relations producing exclusion rather than simply adding women to existing structures.

Jenia Mukherjee (2024) documented unexpected gender empowerment in the Indian Sundarbans, where women invited into a fisheries knowledge co-production project as assistants became, through their own initiative, the primary knowledge producers and practitioners. Kafayat Fakoya (2024) showed similar dynamics in the Nigerian mangrove shellfish sector, where women's ecological knowledge served as the primary driver of mangrove conservation where formal institutions had largely failed. Amalendu Jyotishi (2025) added a critical dimension by documenting how blue economy development on the Karnataka coast was actively disempowering women fish processors, removing them from livelihoods they had held for generations.

4.2.6 Communities Already Know What They Need

A persistent and explicitly normative theme of the V2V webinar series is the insistence that SSF communities are not passive victims of vulnerability but active agents of their own viability. Johnson (2021) illustrated this through the dried fish sector, showing how SSF communities have developed sophisticated systems of fish preservation, trade, and livelihood management that generate significant nutritional and economic value without formal institutional support. Mandal (2023) provided the most sustained theoretical and empirical treatment of community agency through the concept of frugal autonomous innovation, the iterative, bottom-up problem-solving that SSF communities engage in when formal institutions fail to serve them.

Prado (2024) demonstrated how this community agency extends to the political domain, documenting how Brazilian SSF communities organized their own Sustainable Artisanal Fisheries Forum, conducted bycatch self-monitoring, and engaged public prosecutors to challenge fisheries legislation that had criminalized their traditional practices. Susilowati (2025) reinforced this from the Indonesian context, framing coastal communities not merely as objects of development but as active participants whose voices must be central to any genuine transition from vulnerability to viability.

4.3 Emerging and New Themes

4.3.1 Just Transformations Framework

While blue justice and governance reform were present from the beginning of the series, the just transformations framework introduced by Blythe (2022) represents a more theoretically developed articulation of what justice means in the context of SSF governance change, insisting that transformation narratives must be scrutinized carefully since transformations can distribute costs and benefits in deeply unequal ways. The framework gained significant empirical grounding

in 2024 and 2025, with Prado (2024) applying it to Latin American blue injustice and Susilowati (2025) using related indicators to evaluate coastal development in Indonesia, both finding that blue growth and blue justice can be mutually reinforcing only if equity, inclusion, and recognition are built into development processes from the outset.

4.3.2 Surviving Is Not the Same as Thriving

A significant conceptual development across the series was the theorization of resilience not as an alternative to vulnerability analysis but as its complement. Berkes (2022) provided the foundational contribution, distinguishing between coping, adapting, and transforming as three distinct modes of resilience response. Patnaik (2024) extended this by arguing that resilience operates at multiple nested levels including psychological, community, and ecological, and that external interventions such as green energy and information technology can build internal resilience capacities that persist after external support is withdrawn. Berkes and Franz (2025) affirmed through their FAO-published book that resilience thinking is essential for the new generation of fisheries managers the SSF Guidelines are calling into being.

4.3.3 A Declining Rate of New Thematic Content in 2025

A notable finding of the analysis is that the 2025 webinar series introduced only three genuinely new codes, namely Marine Bioregionalism (Kurien, 2025), Blue Tenure and Marine Tenure Rights (Muhl, 2025), and ESG and Corporate Sustainability for SSF (Ragavan, 2025), while all other sessions reinforced themes established in prior years. This decline in new thematic content within the period studied suggests that the V2V webinar series had, by 2025, developed a coherent and stable core conceptual framework for understanding SSF vulnerability and viability. The new themes that emerged in 2025 indicate that the series continues to extend into new

governance domains even as its core has stabilized, and this pattern should be read as a feature of the 2021 to 2025 window analyzed in this study rather than a claim about the platform's future trajectory.

RQ2 | Vulnerabilities Faced by SSF Communities

What types of vulnerabilities do SSF communities face and what are the driving factors behind these vulnerabilities?

4.4 A Map of What Hurts and Why

The second research question focused on mapping the vulnerability landscape of SSF communities as articulated across the webinar series. The analysis identified 18 codes under RQ2, of which seven are Core themes, eight are Emerging themes, and three are New themes. The vulnerability landscape that emerges is one of profound multidimensionality and interconnectedness, with economic, environmental, institutional, social, historical, and psychological vulnerabilities deeply entangled and each amplifying the others. Critically, the webinar series consistently frames these vulnerabilities not as natural or inevitable conditions but as the products of specific historical, political, and economic processes that can and must be addressed through deliberate policy and governance reform.

4.5 Core Vulnerability Types

4.5.1 Economic and Market Vulnerability: Working Hard for Someone Else's Profit

Economic vulnerability was the most consistently discussed vulnerability type across the series, appearing in every year from 2021 to 2025. Sumaila (2021) demonstrated how IUU fishing by industrial fleets systematically undermines the economic viability of SSF by depleting shared fish stocks and forcing SSF fishers into increasingly distant and dangerous fishing grounds.

Pradhan (2023) illuminated a structural dimension through his analysis of the dried fish value chain in the Bay of Bengal, showing how SSF fishers typically receive only 10 to 20 percent of the final market value of their catch, with the remainder captured by middlemen and processors. Sall (2024) showed how motorization of fishing canoes in Senegal had led to over-capitalization of the fishery, reducing the economic returns to individual fishers even as aggregate fishing effort increased. Ayilu (2025) added that industrial demand for small pelagic species for fishmeal production was competing directly with the artisanal fish-for-food systems supplying affordable protein to hundreds of millions across West Africa.

4.5.2 The Sea Is Changing Faster Than the Governance

Climate and environmental vulnerability was present in all five years and discussed from multiple disciplinary perspectives. Pittman (2021) documented how the increasing frequency and intensity of climate-related disasters in the Caribbean was exceeding the adaptive capacity of SSF communities. Irfanullah (2022) presented the case of Bangladesh's Tanguar Haor wetland system, showing how the interconnection of climate change, hydrological alteration, and land use change was driving ecosystem degradation on which inland SSF depend. Das (2023) documented accelerating wetland losses in the Ganga basin, arguing that 85 percent of India's wetlands may be lost to climate change-induced degradation within decades. Ayilu (2025) brought new regional-scale evidence, showing how climate change was causing pelagic fish species in West Africa to migrate northward, disrupting established fishing patterns and threatening the economic viability of communities that had fished specific species in specific locations for generations.

4.5.3 Institutional and Governance Vulnerability

Institutional and governance vulnerability, meaning the failure of formal institutions to recognize, protect, and support SSF communities, was identified as a core driver of vulnerability across all five years. Van Putten (2021) demonstrated how formal legal frameworks governing seafood supply chains in Papua New Guinea systematically excluded SSF from the formal economy while exposing them to exploitation by intermediaries. Rouhani (2022) showed how South Africa's inland fisheries governance remained shaped by apartheid-era criminalization of subsistence fishing. Swerdfager (2023) offered a particularly incisive analysis of the Canadian federal fisheries management system, arguing that its design, in which the Minister retains absolute discretion over Total Allowable Catch decisions with no statutory requirement for transparency, creates governance vulnerability across all fisheries management. Akintola (2024) documented how West African SSF face the combined governance vulnerabilities of IUU fishing estimated to cost the region between 2.3 and 9.4 billion USD annually, alongside inadequate compensation frameworks for oil spill damage.

4.5.4 Feeding the World While Going Hungry

The food and nutrition security dimensions of SSF vulnerability received sustained attention across the series. Johnson (2021) demonstrated the critical nutritional role of dried and fermented fish in South and Southeast Asian diets. Franz (2023) provided the most comprehensive global evidence base through the Illuminating Hidden Harvest study, showing that small-scale fisheries supply a disproportionate share of the world's nutrient-dense aquatic foods, particularly in food-insecure regions. Singh (2024) examined food security vulnerability through the lens of island metabolism, showing how Caribbean small island developing states importing 83 percent of their food requirements face a fundamentally precarious food security situation that COVID-19

cascaded through severely. Jyotishi (2025) added a new dimension by documenting the nutritional consequences of the shift from fish for food to fish for feed on the Karnataka coast.

4.5.5 The Invisible Labour

Social and gender vulnerability cut across virtually every other vulnerability type documented in the series. Hynie (2021) showed how migration decisions are profoundly gendered, shaped by caste, social identity, and the gendered division of labor within fishing communities. Collins (2023) demonstrated through intersectional analysis how gender, caste, class, and geography combine to produce layered disadvantages for women in SSF governance. Mukherjee (2024) documented how women in the Indian Sundarbans dried fish sector work as hajira laborers, a form of daily wage labor with no job security, no social protection, and no recognition of the knowledge and skill they bring, illustrating the depth of social and gender vulnerability that persists even within ostensibly functioning SSF value chains.

4.5.6 Pushed Out, Left Behind: Migration and Displacement

Migration and displacement emerged as a multifaceted vulnerability affecting SSF communities across diverse contexts. Hynie (2021) introduced the concept of migration as both a response to vulnerability and a source of new vulnerabilities, while Blythe (2022) documented how climate-induced migration from fishing communities carries significant social costs including the disruption of community networks and the gendered burden placed on women who remain behind. By 2024 and 2025, displacement had taken on new dimensions associated with blue economy development. Selim (2024) documented the displacement of fishing families from Maheshkhali Island, while Nikku (2024) observed the feminization of coastal communities in Andhra Pradesh as young men migrate to work in distant fisheries. Nyiawung (2025) documented

the governance vulnerability of migrant fishers in the Gulf of Guinea who have settled permanently in neighboring countries, arguing that their exclusion from formal fisheries governance represents a significant and underaddressed form of institutional displacement.

4.6 Emerging and New Vulnerability Types

4.6.1 Colonial and Historical Legacy Exclusion

A theme that grew in prominence across the series was the recognition that many contemporary SSF vulnerabilities are the accumulated consequences of colonial dispossession and the persistence of colonial institutions long after formal independence. Rouhani (2022) first articulated this clearly in the South African context, but Vipul Singh's (2024) historical study of Bihar inland fisheries provided the most sustained treatment, tracing how British colonial authorities systematically converted traditional common-property fishing rights into leasable assets through acts passed between 1819 and 1897, a dispossession whose consequences persisted into the contemporary period. Nyiawung (2025) extended the colonial legacy analysis to the Gulf of Guinea, showing how fisheries governance systems continue to marginalize migrant SSF actors whose fishing patterns predate and transgress colonial-era national borders.

4.6.2 Sustainable for Whom? Blue Economy Displacement Risks

The risks of displacement associated with blue economy development emerged as a significant vulnerability concern from 2022 onward. Blythe (2022) provided the foundational theoretical treatment, identifying ten distinct pathways through which blue economy initiatives can displace or harm SSF communities, including ocean grabbing, pollution, and exclusion from marine spatial planning. Selim (2024) documented a vivid empirical illustration through research

on Maheshkhali Island in Bangladesh, where infrastructure construction had displaced approximately 200 families with neither adequate compensation nor alternative livelihood support. By 2025, blue economy displacement had become one of the most prominent vulnerability themes, with webinars from Indonesia, India, and Bangladesh all documenting specific cases of SSF communities experiencing dispossession through blue economy development, and Muhl (2025) framing the 30x30 conservation target as a potential new source of displacement risk.

4.6.3 Procedural and Distributive Blue Injustices

Building on Prado's (2024) systematic review of Latin American SSF conflicts, the analysis identified procedural and distributive blue injustices as a distinct and important vulnerability type. Prado's research found that 45 percent of documented injustices in Latin American SSF involved either restricted access to fishing territories and resources or exclusion from governance processes and decision-making arenas. These findings were reinforced by Susilowati (2025) in Indonesia and the Bangladesh case documented in December 2025, both showing the systematic exclusion of SSF communities from planning processes determining the fate of the marine and coastal resources on which they depend.

RQ3 | Transitional Pathways to Viability

What transitional pathways and processes are identified in the webinars as means of moving SSF from vulnerability to viability?

4.7 What Actually Moves Communities Forward

The third research question sought to identify the specific pathways and processes through which SSF communities can transition from vulnerability to viability. The analysis identified 27 codes under RQ3, of which nine are classified as Core themes present across three to five years of

the series, twelve as Emerging themes, and six as New themes. The pathways that emerge span governance reform, community organizing, knowledge co-production, technological innovation, livelihood diversification, legal advocacy, and international financing mechanisms. A consistent finding across all five years is that no single pathway is sufficient in isolation. The most compelling accounts of successful SSF viability transitions involve the simultaneous activation of multiple pathways that reinforce each other across governance, livelihood, and knowledge domains.

4.8 Core Transitional Pathways

4.8.1 Adaptive Co-management

Adaptive co-management, meaning governance arrangements that share power and responsibility between SSF communities and state authorities with built-in mechanisms for learning and adjustment, was the most consistently discussed transitional pathway across the series. Bavinck (2021) laid the theoretical foundation by arguing that effective SSF co-management must engage with legal pluralism rather than trying to replace it, working with the multiple overlapping governance systems that SSF communities already navigate. Trimble (2022) provided one of the series' most detailed empirical accounts through the fisheries councils of Uruguay, showing how joint decision-making processes build relationships and trust that are as important as the formal management rules they produce. Njaya (2022) demonstrated the potential of community-led co-management even in transboundary contexts through the Lake Chiuta arrangement across Malawi and Mozambique.

Gazi Islam (2024) provided perhaps the most systematic evaluation of co-management outcomes through his analysis of the Bangladesh Community-Based Fisheries Management project, operating across 40 water bodies with 130 community-based organizations and 20,000

direct beneficiaries, finding that co-management significantly improved social capital, access to credit, and livelihood outcomes. Nakamura (2025) situated these national co-management experiences within the global normative framework of the FAO SSF Guidelines, arguing that their human rights-based approach gives national co-management advocates the international legitimacy they need to hold governments accountable.

4.8.2 Knowledge Co-production and Capacity Building

The co-production of knowledge between SSF communities, researchers, and policymakers was consistently emphasized across all five years as both a means to better governance outcomes and an end in itself, since the process builds the relational and intellectual capacities that vulnerability has often depleted. Mukherjee (2024) documented how knowledge co-production workshops in the Indian Sundarbans generated unexpected outcomes, with women participants transforming themselves from support staff into active knowledge producers and fisheries managers. Espinosa-Romero (2022) showed how the Pescadata mobile application enabled over 1,800 fishers across 12 countries to share knowledge about catch, effort, and market conditions, creating a collective intelligence network that individual fishers could not have built alone. Jentoft (2025) provided the most theoretically developed treatment through his transdisciplinarity as jazz metaphor, arguing that good knowledge co-production requires both technical skill and a capacity for improvisation that rigid disciplinary frameworks cannot provide.

4.8.3 Women’s Empowerment and Gender-transformative Approaches

Women's empowerment emerged as a core transitional pathway that is both instrumentally valuable in improving SSF governance and livelihood outcomes, and intrinsically important as a matter of justice and rights. Collins (2023) argued that effective women's empowerment in SSF

cannot be reduced to adding women to existing decision-making structures but must involve gender-transformative approaches that challenge the underlying gender relations, norms, and power dynamics producing exclusion. Fakoya (2024) illustrated this through women's oyster harvesting associations in The Gambia and Ghana that had created new governance institutions reflecting women's ecological knowledge and values, including community-managed exclusive use zones, closed harvesting seasons, and mangrove reforestation programs. Mukherjee (2024) argued that enabling environments for women's agency rather than programs with predetermined outcomes produce the most transformative results.

4.8.4 Changing the Law to Change the Reality

Legal reform and rights-based approaches emerged as a critical transitional pathway as speakers across the series documented how existing legal frameworks systematically exclude SSF communities from formal rights. Rouhani (2022) argued for a constitutional rights-based approach to SSF in South Africa, showing how constitutional commitments to equality and dignity provide a foundation for challenging apartheid-era fisheries legislation. Areola (2023) made a parallel argument for Nigeria, showing how domestication of the FAO SSF Guidelines into Nigerian law could provide the legal framework needed to recognize and protect SSF communities' rights. Vipul Singh (2024) demonstrated the transformative potential of legal reform through the Bihar case, where the Bihar Fish Jalkar Management Act of 2006 reversed centuries of dispossession, with measurable improvements in fish production and community livelihoods. Nakamura (2025) argued that the FAO SSF Guidelines represent the first internationally agreed legal framework specifically designed to protect SSF rights, and that their implementation is one of the most important transitional pathways available globally.

4.8.5 Collective Action and Grassroots Mobilization

A core finding across the series is that SSF communities' own political mobilization and collective action are among the most effective transitional pathways. Haque and Uddin (2021) documented how Bangladesh SSF communities had developed robust self-organized disaster resilience networks that outperformed formal disaster response systems. Prado (2024) provided the most systematic documentation through her Latin American review, showing that active social mobilization was the most frequently documented response to blue injustice across 73 case studies. The Brazilian case she presented in detail demonstrated how a combination of scientific self-monitoring, legal advocacy, alliance-building, and political mobilization resulted in the suspension of regulations criminalizing traditional fishing practices. Susilowati (2025) reinforced this from Indonesia, arguing that the transition from blue growth to blue justice requires coastal communities to be recognized as active advocates in development processes.

4.9 Emerging and New Transitional Pathways

4.9.1 Digital Technology for Collective Action and Resilience

Digital technology emerged across the series as a transitional pathway with significant but context-dependent potential. Espinosa-Romero (2022) showed how the Pescadata platform connected over 1,800 fishers across 12 countries, enabling collective knowledge generation and advocacy. Patnaik (2024) documented how solar-powered disaster preparedness kits combining lighting, mobile charging, and FM radio access enabled fishing communities in Chilika, Orissa, to maintain communication and access information during Cyclone Fani when grid electricity was unavailable for up to 15 days, arguing that technology designed with rather than for SSF communities becomes an internalized component of community resilience. Muhl (2025) pointed

to a new application through community mapping tools enabling SSF communities to document their tenure stories and build a spatial evidence base for tenure rights claims.

4.9.2 Nature-based Solutions and Locally led Adaptation

Irfanullah (2022) introduced nature-based solutions and locally led adaptation as transitional pathways specifically suited to SSF communities facing climate-driven ecological vulnerability. His case study of the Tanguar Haor wetland restoration in Bangladesh demonstrated how nature-based solutions can generate multiple co-benefits across livelihoods, ecosystem health, and climate resilience when designed with community participation from the outset. He presented the eight principles of locally led adaptation, endorsed by over 80 organizations globally, as a governance framework ensuring that climate adaptation investments reach and serve SSF communities rather than being captured by national governments and their priorities.

4.9.3 Loss and Damage Financing

Khan (2023) presented the Loss and Damage Fund established at the COP28 climate negotiations, which committed 758 million USD to support vulnerable communities experiencing climate-related losses. Khan argued that SSF communities whose livelihoods are directly exposed to sea level rise, increased storm intensity, and changing fish distribution are among the most legitimate claimants for loss and damage financing. He proposed that community-based organizations with formal legal entity status could access the Fund directly, with organizations like V2V providing technical support. This pathway represented a significant conceptual innovation in the series, connecting SSF vulnerability to an emerging international financing mechanism and pointing toward a future in which climate finance flows directly to fishing communities.

4.9.4 Marine Bioregionalism and Blue Tenure

Two of the three genuinely new transitional pathways emerging in 2025 pointed in complementary directions. Kurien (2025) introduced marine bioregionalism, the idea that ocean governance should be organized around ecologically defined spaces characterized by specific combinations of currents, depth, and species composition rather than political borders that fragment ocean governance into disconnected national jurisdictions. He argued that SSF communities have always implicitly recognized bioregional ecological realities by following fish migrations across political borders, and that formalizing bioregional governance frameworks could enable more ecologically rational and SSF-friendly management.

Muhl (2025) introduced the Blue Tenure Transitions working group as an organizational vehicle for addressing the tenure governance gap that leaves SSF communities in the Western Indian Ocean without secure, legally recognized rights to their historical fishing territories. She argued that the combination of scientific evidence on how tenure governance affects SSF outcomes and community-developed mapping tools for documenting tenure stories represents a powerful new approach to tenure reform advocacy, one that centers SSF communities' own knowledge and experience rather than relying exclusively on external legal or scientific expertise.

4.10 Chapter Summary

This chapter has presented the findings of a thematic analysis of 59 V2V Global Partnership thematic webinar sessions spanning 2021 to 2025. The analysis identified 74 codes organized across three research questions, summarized in Table 7 and mapped temporally in Figure 4, revealing a rich, multidimensional, and temporally evolving body of knowledge about SSF vulnerability and viability.

In response to RQ1, the analysis found that the V2V webinar series has developed a coherent and increasingly sophisticated conceptual framework centered on blue justice, multidimensional viability, transdisciplinary knowledge co-production, governance reform, gender equity, and community agency. These core ideas were present across all five years, with each year adding new empirical depth, theoretical sophistication, and practical application. The 2025 series showed a marked decline in new thematic content, suggesting the core of this framework had stabilized within the period studied.

In response to RQ2, the analysis identified seven core vulnerability types including economic and market, climate and environmental, institutional and governance, food and nutrition security, social and gender, migration and displacement, and pandemic disruption, alongside eleven emerging and new vulnerability types. The analysis consistently showed that SSF vulnerabilities are not isolated conditions but deeply interconnected systems of disadvantage rooted in historical dispossession, governance failure, ecological degradation, and structural inequality.

In response to RQ3, the analysis identified 27 transitional pathways, of which nine are documented as Core themes present across multiple years. The most consistently emphasized pathways were adaptive co-management, knowledge co-production, women's empowerment, legal reform, rights-based approaches, and collective action. Emerging and new pathways including digital technology for collective action, nature-based solutions, loss and damage financing, marine bioregionalism, and blue tenure point toward a broadening and deepening of the V2V partnership's understanding of what it takes to support SSF communities in transitioning from vulnerability to viability.

Taken together, the results present a picture of SSF communities as neither passive victims of vulnerability nor isolated agents of their own viability, but as actors embedded in complex social-ecological systems whose transition toward viability requires simultaneous action across governance, knowledge, livelihood, legal, and financial domains. These findings are discussed in relation to the existing literature and their implications for SSF policy and practice in Chapter Five.

CHAPTER FIVE

From Evidence to Argument: Justice, Knowledge, and the Making of Transition

5.1 Introduction: Five Years, 74 Codes, One Overarching Argument

This chapter discusses the findings presented in Chapter Four in relation to the existing literature on small-scale fisheries (SSF), the tri-layered conceptual framework developed in Chapter Two, and the broader implications for SSF governance, policy, and scholarly understanding. The discussion is organized in six sections. The first three address each research question in turn, moving beyond description toward sustained interrogation of what the findings mean and why they matter. The fourth section presents an original typology of SSF vulnerability-viability transition contexts as the first major innovative contribution of this chapter. The fifth section integrates findings across all three research questions, advancing an overarching argument about the nature of SSF transitions and presenting the theorization of the V2V webinar series as a knowledge common as the second major innovative contribution. The sixth section addresses the declining rate of new thematic content observed by 2025 as a finding.

These six sections are not six separate discussions but six connected movements of a single argument, and it is worth tracing that argument's shape before entering its details. The chapter begins by asking what big ideas, vulnerabilities, and pathways the webinar series reveals (Sections 5.2 through 5.4). It then asks a harder question: do these ideas, vulnerabilities, and pathways combine into something more than a list (Section 5.5, the typology). The typology in turn raises the deepest question of the chapter: what is the underlying logic connecting justice to viability across every transition context identified (Section 5.6, the justice-viability nexus. And finally, the chapter asks what the pattern of declining new thematic content by 2025 suggests about the

stability of this argument within the period studied (Section 5.7). Read in sequence, these sections move from description to integration to theory to validation: each section answers a question the previous section could not fully resolve, and together they build the central claim of this thesis, that justice and viability in SSF transitions are not two separate goals to be pursued but two faces of the same underlying transformation.

As a researcher embedded in the V2V Global Partnership at the University of Waterloo and personally connected to Bangladesh, a country that figures prominently in the webinar series through discussions of climate vulnerability, blue economy development, and coastal livelihoods, I am aware that my positionality shapes what I attend to and how I interpret what I find (Holmes, 2020; Braun and Clarke, 2022). I participated in the 2024 V2V Engage Winter School in Kumirmari, India, which provided direct, grassroots exposure to SSF community realities that has enriched my understanding of the human dimensions of these findings. The analytical arguments I advance in this chapter are my own scholarly judgments, grounded in five years of sustained transdisciplinary discourse across 59 webinar sessions.

Table 9 provides a visual overview of all 74 codes identified across the three research questions.

Table 9

Distribution and Classification of All 74 Codes Across Three Research Questions (2021-2025)

74 Codes Identified Across 59 Webinars (2021-2025) | 3 Research Questions					
Research Question	**Core**	**Emerging**	**New**	**Total**	**% Core**
RQ1: Big Ideas and Emerging Themes	**9**	**11**	**9**	**29**	**31%**
RQ2: Vulnerabilities Faced by SSF	**7**	**8**	**3**	**18**	**39%**
RQ3: Transitional Pathways to Viability	**9**	**14**	**4**	**27**	**33%**

Total	**25**	**33**	**16**	**74**	**34%**

Note. Core codes are present across three to five years; Emerging codes across two to four years; New codes were introduced in one year only. The percentage of Core codes within each RQ reflects the proportion of themes robust enough to qualify as persistent, foundational features of V2V webinar discourse.

Figure 3 Code distribution by RQ

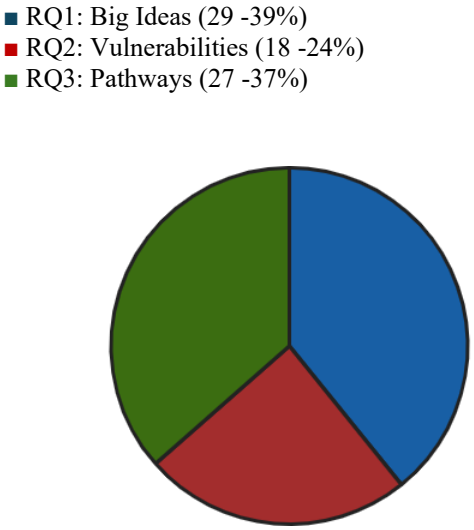
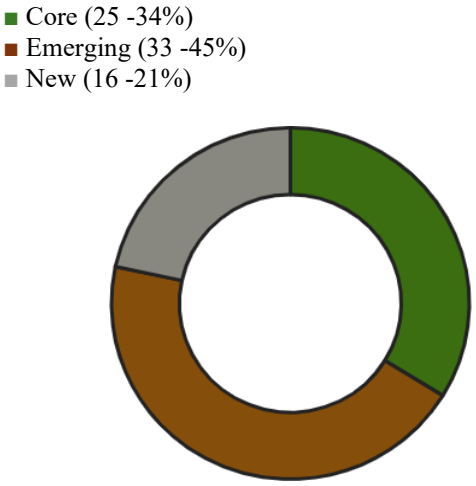
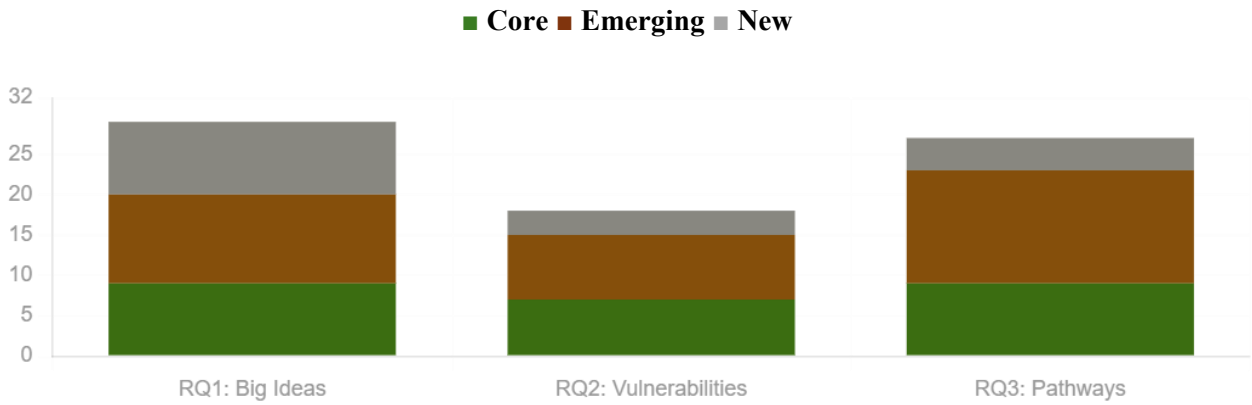


Figure 4 Classification breakdown



Note. Figure 3 (left) shows the distribution of all 74 codes across the three research questions as a proportion of the total: RQ1 Big Ideas and Emerging Themes (29 codes, 39%), RQ2 Vulnerabilities Faced by SSF Communities (18 codes, 24%), and RQ3 Transitional Pathways to Viability (27 codes, 37%). Figure 4 (right) shows the classification breakdown of all 74 codes by thematic status. Core codes are present across three to five years and represent persistent, foundational themes of the webinar series. Emerging codes are present across two to four years and represent developing themes. New codes were introduced in one year only. Classification follows Braun and Clarke (2022). Total codes = 74 across 59 V2V thematic webinar sessions spanning January 2021 to December 2025. All percentages are rounded to the nearest whole number.

Figure 5 Stacked bar: codes by RQ and classification



Note. Each bar represents the total number of codes within that research question, subdivided by classification status. RQ3 contains the highest number of Emerging codes (14), reflecting the growing diversity of transitional pathways documented as the webinar series matured across 2021 to 2025.

5.2 Ideas That Moved the Field

The first research question asked what key themes and big ideas have emerged from V2V webinar discussions enabling SSF transition from vulnerability to viability. The analysis identified 29 codes across five years, of which nine achieved Core status. But identifying codes is only the beginning of the analytical work. This section goes further, asking: what are the most significant ideas to emerge from this five-year body of discourse, how do they connect and combine, and what does their emergence tell us about the direction in which SSF scholarship and governance are moving?

5.2.1 The Ten Best Ideas: A Cumulative Distillation

What does five years of expert discourse, 59 sessions, and 74 codes actually tell us about SSF governance? Not a scattered collection of observations but a convergent intellectual project that has been building, year by year, toward a coherent set of foundational ideas about what SSF vulnerability is, why it persists, and what it takes to transcend it. Synthesizing the 29 codes of RQ1 through a combinatorial lens, this analysis identifies ten ideas that stand above the rest in analytical significance, longitudinal persistence, cross-RQ integration, and practical implication for SSF governance. These ten ideas are not arbitrary selections, and they are not simply the ten most frequently cited themes. They are the concepts that, when placed in dialogue with each other, produce a body of understanding that is qualitatively greater than the sum of its parts. Table 10 presents each idea alongside its core claim, its connections to other ideas in the set, and its evidentiary grounding in both the primary webinar discourse and the supporting published literature.

Table 10

The Ten Best Ideas Emerging from the V2V Webinar Series: Claims, Connections, and Sources

	Table 10 | Ten Best Ideas Emerging from the V2V Webinar Series (2021-2025)				
#	**Big Idea**	**What It Claims**	**How It Connects to Other Ideas**	**V2V Webinar Sources (Primary)**	**Published Literature Sources (Supporting)**
01	**Blue Justice as the New Governing Paradigm**	SSF transitions must be evaluated for recognitional, procedural, and distributional justice, not merely technical or economic outcomes. Justice is the evaluative criterion against which all change must be measured.	Foundation for the justice-viability nexus; reframes vulnerability as a rights violation rather than a developmental deficit	Sumaila (2021); Arias Schreiber (2022); Blythe (2022); Prado (2024); Susilowati (2025)	Jentoft et al. (2022); Blythe et al. (2022); Schlosberg (2007)
02	**Viability Is Multidimensional and Political**	Genuine SSF viability spans ecological, economic, social, cultural, and institutional domains simultaneously. It is not delivered through programs but achieved when communities gain the political rights and institutional standing to govern themselves.	Defines the goal of SSF transitions; provides the five-domain structure of the V2V Transition Ecosystem framework	Dias (2021); Franz (2023); Vipul Singh (2024); Berkes and Franz (2025)	Nayak and Berkes (2014); Dias et al. (2021); Franz et al. (2023)
03	**Transdisciplinarity Is a Form of Governance**	Knowledge co-production across community, science, and policy is not merely a research methodology but a political practice that determines whose knowledge counts as evidence and therefore who governs.	Connects to community agency (Idea 04) and evidence as political act (Idea 10); grounds the V2V partnership itself as a governance innovation	Jentoft (2025); Mandal (2023); Berkes (2022)	Lang et al. (2012); Norström et al. (2020)
04	**Community Agency Is the Engine of Viability**	No external actor can deliver genuine SSF viability. Communities achieve viability when structural barriers to their self-determination are removed and when their knowledge, collective action, and organizational capacity are recognized and resourced.	Directly challenges the technical assistance model; connects to all eight Core transitional pathways which require community leadership	Johnson (2021); Mandal (2023); Prado (2024); Susilowati (2025)	Dias et al. (2023a); Armitage et al. (2017)
05	**Gender Is a Structure, Not a Category**	Gender in SSF is a system of power relations shaping the positions and possibilities of all actors, not simply a synonym for women's participation. Gender-transformative approaches must challenge structural relations, not just	Connects to colonial governance reform (Idea 06) and to the social domain of the V2V axis; cross-cutting mechanism across all five transition context types	Collins (2023); Mukherjee (2024); Fakoya (2024); Jyotishi (2025)	Collins (2023); Franz et al. (2023)

		add women to existing structures.			
06	**Governance Reform Must Confront Colonial Roots**	Contemporary institutional exclusion of SSF communities is not administrative oversight but the continuation of colonial dispossession institutionalized in post-colonial legal frameworks. Reform requires legal reversal, not incremental inclusion.	Provides the historical depth for understanding structural vulnerability; directly grounds the Colonial Exclusion transition context in the typology	Rouhani (2022); Areola (2023); Vipul Singh (2024); Nyiawung (2025)	Satizabal et al. (2020); Tuhiwai Smith (2012)
07	**Resilience Needs a Justice Filter**	Resilience theory risks normalizing vulnerability by framing it as a condition to be absorbed rather than a political arrangement to be challenged. Communities should not be expected to become resilient to injustice; they deserve governance that removes the injustice.	Qualifies and extends resilience theory; connects Idea 01 (blue justice) with the SES theoretical context; most visible in Climate-Ecological Stress transition contexts	Berkes (2022); Irfanullah (2022); Blythe (2022); Patnaik (2024)	Berkes (2012); Blythe et al. (2022)
08	**The Blue Economy Has a Dark Side**	Blue growth can displace SSF communities without consultation or compensation, making sustainability rhetoric a vehicle for a new wave of ocean enclosure. The dark side of transformation is not a risk but a documented pattern.	Drives the Blue Economy Displacement transition context; connects to procedural and distributional justice failures in the justice-viability nexus	Blythe (2022); Selim (2024); Jyotishi (2025); Das (2025)	Blythe et al. (2022); Satizabal et al. (2020)
09	**Rights Architecture Is the Foundation of Viability**	From constitutional rights to FAO SSF Guidelines to blue tenure and loss and damage financing, formal legal frameworks are not peripheral supports for SSF transitions but their structural prerequisite. Without rights, all other gains are precarious.	Grounds the legal reform pathway; connects to colonial governance (Idea 06) and evidence as political act (Idea 10); links SSF to international climate finance governance	Khan (2023); Nakamura (2025); Muhl (2025)	FAO (2015); Ostrom (1990)
10	**Making SSF Visible Is an Act of Justice**	Evidence production about SSF, from the Illuminating Hidden Harvest study to fisher self-monitoring to blue justice glossaries, is not merely a technical contribution but an act of recognitional justice that changes whose reality counts in governance.	Connects to transdisciplinarity (Idea 03), community agency (Idea 04), and blue justice (Idea 01); exemplifies how epistemic justice and political justice are inseparable in SSF	Arias Schreiber (2022); Espinosa-Romero (2022); Franz (2023); Prado (2024)	Franz et al. (2023); Fricker (2007)

Note. V2V Webinar Sources are primary data sources drawn from the 59 V2V Global Partnership thematic webinar sessions (2021-2025). Published Literature Sources provide the scholarly context that supports and extends each idea. The separation of sources confirms that the ten big ideas emerged from the webinar discourse first and are subsequently grounded in published scholarship. Ideas 01 through 06 are Core themes present across all five years of

the series. Ideas 07 through 09 are Core or Emerging themes present across four to five years. Idea 10 is an Emerging theme whose analytical significance exceeds its frequency given its cross-cutting implications for all other ideas.

The real analytical power of these ten ideas lies not in their individual content, but in what they produce when they meet. A single idea, however well supported, remains isolated. When ideas combine, they generate emergent insights that neither could produce alone, which is precisely the logic of the combinatorial analysis presented in Table 11. This is also, more broadly, what the V2V webinar series has been doing across five years: not accumulating ten separate ideas but weaving a web of interconnected insights whose cumulative effect constitutes what this study terms the V2V Transitions Governance Paradigm, a coherent, justice-centered, community-grounded understanding of SSF transitions that supersedes the vulnerability management paradigm the field has left behind. The nine combinations in Table 11 range from powerful pairings to the ultimate integration of all ten ideas, and each combination identifies an emergent insight that has direct implications for how SSF governance should be designed, evaluated, and reformed.

Table 11

Combinatorial Analysis: When the Ten Best Ideas Combine, the Effect Exceeds the Sum of Parts

Combinatorial Analysis: When Ideas Combine, the Effect Exceeds the Sum of Parts		
Combination	**Combined Insight**	**Significance for SSF Governance**
Ideas 01 + 02	**Justice-Viability Nexus**	Every gain in viability must also be a gain in justice. An SSF transition that improves incomes but excludes women from governance or displaces neighboring communities is not genuinely viable.
Ideas 03 + 04	**Epistemic Agency**	Communities that produce knowledge about their own situation are communities that govern themselves. Transdisciplinarity is not a research method but a transfer of epistemic authority from external experts to communities.
Ideas 05 + 06	**Intersectional Dispossession**	Colonial dispossession and gender marginalization compound each other across generations. Communities cannot be made whole by addressing either alone, structural legal reform and gender transformation must proceed simultaneously.
Ideas 07 + 08	**The Resilience Trap**	Expecting SSF communities to become resilient to blue economy displacement is morally and analytically incoherent. Resilience without justice makes communities better at surviving arrangements that should not exist.

Ideas 09 + 10	**Legal-Epistemic Foundation**	Rights without evidence are unenforceable. Evidence without rights is ignored. Only when communities have both legal standing and the data to document their contributions can governance change be demanded and sustained.
Ideas 01 + 06 + 09	**Decolonial Justice Architecture**	Naming historical injustice (blue justice), reversing colonial dispossession (governance reform), and building legal protection (rights architecture) constitute the three stages of a decolonial transition from vulnerability to viability.
Ideas 02 + 04 + 07	**Community-Led Viability**	Multidimensional viability cannot be delivered, it must be achieved through community agency. Resilience theory that ignores this substitutes coping for liberation and adaptation for transformation.
Ideas 03 + 05 + 10	**Feminist Epistemics**	When women in SSF communities are recognized as knowledge producers, the evidence they generate about ecological conditions, governance failures, and livelihood realities reshapes both what counts as knowledge and who governs.
All 10 ideas	**The V2V Transitions Governance Paradigm**	Together the ten ideas constitute a coherent, justice-centered, community-grounded paradigm for governing SSF transitions, one that treats transition itself, the active, contested movement from vulnerability to viability, as the central object of governance rather than vulnerability management or viability outcomes alone. This is the paradigm the V2V webinar series has collectively built and documented across five years.

***Note*.** Combinations are derived from the integrated analysis of codes across all three research questions and all five years of the webinar series. The combinatorial logic reflects the principle, consistent with social-ecological systems theory (Ostrom, 2009; Berkes, 2012), that complex adaptive systems produce emergent properties that are qualitatively different from the sum of their components. The final row summarizing all ten ideas together constitutes what this study terms the V2V Transitions Governance Paradigm, a paradigm centered explicitly on transition as an active, contested, and ongoing process rather than vulnerability or viability as static end states.

5.2.2 From Vulnerability Management to Justice Assertion: Three Connected Shifts

The most consequential implication of the RQ1 findings is that the V2V webinar series documents a paradigmatic shift in SSF scholarship and advocacy that has not yet been explicitly named in the literature. For much of the late twentieth and early twenty-first centuries, SSF scholarship was organized around the concept of vulnerability: the analytical goal was to measure, characterize, and reduce the exposure of fishing communities to ecological, economic, and institutional stressors (Allison et al., 2009; Bene, 2009; Badjeck et al., 2010). This vulnerability paradigm was enormously productive, but it carried an implicit politics: it framed fishing communities primarily as subjects of risk rather than as agents of rights, and it positioned external

researchers, governments, and development agencies as the primary actors responsible for designing and delivering solutions (Islam and Chuenpagdee, 2022; Jentoft et al., 2011).

The V2V webinar series documents the progressive displacement of this vulnerability paradigm by a justice paradigm. The emergence of blue justice as a Core theme across all five years (Sumaila, 2021; Blythe et al., 2022; Arias Schreiber, 2022; Prado, 2024; Susilowati, 2025), the development of the just transformations framework (Blythe et al., 2022), the systematic documentation of blue injustice typologies across 73 Latin American cases (Prado et al., 2024), and the growing operationalization of blue justice indicators (Susilowati, 2025) collectively constitute an intellectual project of reframing. Schlosberg (2007) describes a comparable paradigmatic shift in the environmental justice literature, from distributional concerns to a comprehensive three-dimensional justice framework. The V2V webinar series has enacted precisely this expansion in the SSF domain, and the longitudinal analysis makes this intellectual trajectory visible in a way that no single study or cross-sectional analysis could achieve.

The practical implications are significant. SSF support programs, funding mechanisms, and governance frameworks designed within the vulnerability paradigm may be structurally inadequate to the justice-oriented understanding of SSF transitions the field has now developed (Satizabal et al., 2020; Chuenpagdee and Jentoft, 2018). Reforming these programs requires not merely technical adjustment but paradigmatic reorientation.

This shift from vulnerability management to justice assertion is itself made possible by a second, less visible transformation: a change in who is recognized as capable of producing knowledge. The appearance of transdisciplinary knowledge co-production as a Core theme across all five years invites a critical question: why does a methodological commitment appear as a big

idea alongside substantive concepts like blue justice and governance reform? The answer is that transdisciplinarity in the SSF context is not merely a methodological preference but a political practice with substantive governance implications (Lang et al., 2012; Norström et al., 2020).

When Mandal (2023) presents frugal autonomous innovation as a legitimate form of knowledge production that communities engage in without academic facilitation, when Jentoft (2025) insists that good transdisciplinary research requires the improvisational responsiveness of jazz rather than the rigid execution of a predetermined score, and when Mukherjee (2024) documents how women in the Sundarbans transformed themselves from research assistants into primary knowledge producers and fisheries practitioners, these speakers are making claims about epistemic authority: about who has the right to produce knowledge about SSF, whose knowledge counts as evidence in governance processes, and what forms of knowing deserve recognition in policy design (Fricker, 2007; Whyte, 2013). The V2V webinar series, through its five-year documentation of transdisciplinary knowledge production across diverse geographic and disciplinary contexts (Berkes, 2022; Mandal, 2023; Jentoft, 2025), has constructed a cumulative argument for epistemic justice as a foundational condition of SSF viability (Norström et al., 2020).

Justice assertion and epistemic authority converge on a third and final implication, this one concerning the concept of viability itself. The third major implication of the RQ1 findings concerns the concept of viability itself. The consistent appearance of community agency as a Core theme across all five years (Johnson, 2021; Mandal, 2023; Prado, 2024; Susilowati, 2025) tells a clear story: genuine SSF viability is not a condition that external actors can deliver to communities, however well-intentioned or generously resourced. It is a condition that communities achieve when structural barriers to their self-determination are removed (Nayak and Berkes, 2014; Chuenpagdee and Jentoft, 2018).

Singh's (2024) case study of Bihar inland fisheries makes this with particular force. The doubling of fish production from 400 to 846 metric tons following the Bihar Fish Jalkar Management Act of 2006 was not a technical achievement in fisheries management. It was the fruit of a political and legal reform that reversed centuries of colonial dispossession and granted the Mala fishing community the rights they needed to invest in and manage the water resources they had historically used but been systematically excluded from (Vipul Singh, 2024). Prado's (2024) documentation of Brazilian SSF communities organizing their own monitoring, legal advocacy, and policy engagement reinforces this principle: community agency, when exercised in an enabling institutional environment, can produce governance change of a scale and durability that external technical assistance alone cannot achieve (Armitage et al., 2017; Cohen and Alexander, 2013). Together, these three shifts, from vulnerability management to justice assertion, from external expertise to community epistemic authority, and from delivered viability to achieved viability, constitute the central paradigmatic transformation that the V2V webinar series has documented across five years of sustained expert discourse. These big ideas describe what the V2V series has come to understand about SSF transitions in principle. The question that follows is what these ideas reveal about vulnerability in practice.

5.3 Vulnerability Is Not Bad Luck

The second research question asked what types of vulnerabilities SSF communities face and what drives them. The analysis identified 18 codes across five years, building a vulnerability map that is both broader and more analytically granular than those available in the existing SSF literature (Islam and Chuenpagdee, 2022; Allison et al., 2009). But the real purpose of this section is not to catalogue what was found. It is to insist on the most important and most consistently

resisted conclusion that the findings demand: SSF vulnerability is not bad luck, not a developmental stage, not a natural consequence of fishing as a livelihood. It is a political arrangement, produced by specific historical and contemporary decisions, maintained by specific institutional interests, and capable of being changed through specific political interventions. Every vulnerability documented in the analysis has an address, an origin, and an accountable party. Finding that address is the first step toward dismantling it.

Table 12

Frequency of Vulnerability Types Across Five Years of the V2V Webinar Series (2021-2025)

18 Vulnerability Types Identified | Tracked Across Five Years (2021-2025)			
Vulnerability Type	**Presence Across 5 Years**	**Years**	**Status**
Economic and Market Vulnerability	■ ■ ■ ■ ■	5/5	Core
Climate and Environmental Vulnerability	■ ■ ■ ■ ■	5/5	Core
Institutional and Governance Vulnerability	■ ■ ■ ■ ■	5/5	Core
Food and Nutrition Security Vulnerability	■ ■ ■ ■ ■	5/5	Core
Social and Gender Vulnerability	■ ■ ■ ■ ■	5/5	Core
Migration and Displacement	■ ■ ■ ■ □	4/5	Core
Pandemic Disruption (COVID-19)	■ ■ ■ ■ □	4/5	Core
Legal and Supply Chain Vulnerability	■ ■ ■ □ □	3/5	Core
Colonial and Historical Legacy Exclusion	■ ■ ■ ■ □	4/5	Emerging
Climate-induced Ecosystem Degradation	■ ■ ■ ■ □	4/5	Emerging
Blue Economy Displacement Risks	■ ■ ■ □ □	3/5	Emerging
Data Poverty and Institutional Gaps	■ ■ ■ □ □	3/5	Emerging
Labor Exploitation and Forced Labor	■ ■ ■ □ □	3/5	Emerging
Procedural and Distributive Blue Injustices	■ ■ □ □ □	2/5	Emerging
Psychological and Spiritual Vulnerability	■ ■ □ □ □	2/5	Emerging
Water Quality Degradation	■ □ □ □ □	1/5	New
Disaster Vulnerability in Coastal SSF	■ □ □ □ □	1/5	New

Food and Nutrition Insecurity in SIDS	■ □ □ □ □	1/5	New

Key Finding: Five vulnerability types present across all five years confirm the structural and universal character of SSF precarity globally across all major regions.

Note. Filled squares indicate years in which the vulnerability type was identified as a significant theme. Empty squares indicate years in which the type was absent or peripheral. Core vulnerability types present across all five years are shown in blue; Emerging types in amber; New types in teal. Classification follows Braun and Clarke (2022).

5.3.1 Five Vulnerabilities That Never Go Away: The Structural Core

The most striking feature of the vulnerability analysis is the cluster of five vulnerability types present across all five years: economic and market, climate and environmental, institutional and governance, food and nutrition security, and social and gender vulnerability. Their universal persistence across five years of discourse, spanning Africa, Asia, Latin America, and the Caribbean, confirmed by speakers from radically different disciplinary, institutional, and geographic backgrounds, permits a strong conclusion: these five vulnerabilities are not contextual misfortunes or developmental deficits. They are structural features of the global political economy of fisheries, produced and maintained by specific institutional arrangements, market structures, and governance frameworks that systematically disadvantage SSF (Bene, 2009; Jentoft et al., 2011; Satizabal et al., 2020).

The economic vulnerability documented by Sumaila (2021), Pradhan (2023), and Ayilu (2025) does not arise because SSF communities lack entrepreneurial capacity. It arises because the value chains in which they participate are structurally designed to extract value from fishers and transfer it upward to intermediaries, leaving fishers with ten to twenty percent of the final value of their catch while bearing one hundred percent of the ecological risk (Pradhan, 2023). The institutional vulnerability documented by Van Putten (2021), Swerdfager (2023), and Akintola (2024) does not arise because governments lack capacity. It arises because governance systems

have been designed around the interests of industrial fisheries and coastal development, with many legal frameworks inherited from colonial administrations that actively exclude SSF from formal rights. As the political ecology tradition has argued (Blaikie and Brookfield, 1987; Satizabal et al., 2020), technical interventions that target individual dimensions of structural vulnerability without addressing the political arrangements that produce it are unlikely to generate durable improvements.

5.3.2 Vulnerabilities Do Not Queue Politely, They Pile On

The analysis consistently shows that SSF vulnerabilities do not operate in isolation: economic vulnerability amplifies institutional vulnerability, which amplifies social and gender vulnerability, which amplifies climate vulnerability, in recursive feedback loops that social-ecological systems theory predicts (Ostrom, 2009; Berkes, 2012) but that the SSF vulnerability literature has inadequately documented empirically. The most consequential compounding dynamic documented in the series is the interaction between historical colonial dispossession and contemporary institutional vulnerability. Communities dispossessed of water rights and fishing territories by colonial governments did not simply lose economic assets: they lost legal standing, institutional recognition, social capital, and cultural authority across generations. Vipul Singh's (2024) Bihar case, Rouhani's (2022) South African case, Areola's (2023) Nigerian case, and Nyiawung's (2025) Gulf of Guinea case all illustrate this multi-generational compounding with striking clarity.

The practical implication is that single-dimension vulnerability reduction strategies are inherently insufficient. A program that increases SSF income without addressing institutional exclusion will see those gains eroded by the next governance failure. A program that establishes

co-management without securing legal tenure will see that arrangement undermined by the next blue economy development. Effective vulnerability reduction requires simultaneous engagement across multiple dimensions of the compound, with time horizons sufficient for multi-domain change to take hold (Chuenpagdee and Jentoft, 2018; Armitage et al., 2017).

5.3.3 The Blue Economy Is Creating New Victims in Real Time

The vulnerability analysis also reveals a moving frontier of SSF precarity. The blue economy displacement risks documented by Blythe (2022) and empirically confirmed by Selim (2024), Jyotishi (2025), and Jewel Das (the December 2025 Bangladesh webinar) represent a rapidly growing threat that the SSF literature of a decade ago barely anticipated (Blythe et al., 2022). As national governments and investors pursue blue economy development agendas with increasing ambition, the displacement of SSF communities from their traditional fishing grounds through liquid natural gas infrastructure, port expansions, marine conservation exclusion zones, and marine tourism concessions is accelerating rather than diminishing.

The case of Maheshkhali Island, Bangladesh, where 200 families were displaced from fishing grounds with neither procedural participation nor adequate compensation (Selim, 2024), stands as a vivid illustration of how blue economy development without justice mechanisms transforms economically precarious but culturally anchored SSF communities into landless, livelihood-destitute households. The 30x30 conservation target, the expansion of marine spatial planning, and the growing use of payment for ecosystem services instruments all create new potential pathways for SSF displacement if not designed with explicit attention to SSF tenure security, procedural rights, and distributive equity (Muhl, 2025; Armitage et al., 2020). If

vulnerability is structural rather than incidental, the pathways out of it cannot be merely technical either. The next section examines what kind of pathways the webinar series actually documents.

5.4 Change Does Not Come in a Box: What Effective Pathways Actually Look Like

The third research question asked what transitional pathways and processes are identified in the webinars as means of moving SSF from vulnerability to viability. The analysis identified 27 codes across five years, constituting the most comprehensive catalogue of SSF transitional strategies assembled from a single longitudinal data source. But this section is not primarily interested in listing those 27 pathways. It is interested in what they have in common, what the most successful cases of SSF transition share that the least successful do not, and what the persistent failure of technically sophisticated but politically timid interventions reveals about what change in SSF governance actually requires. The answer, documented with remarkable consistency across 59 sessions, five years, and every major SSF region globally, is disarmingly simple and institutionally difficult: change in SSF governance requires changing who has power, not merely who has advice.

Table 13

Frequency of Transitional Pathways Across Five Years of the V2V Webinar Series (2021-2025)

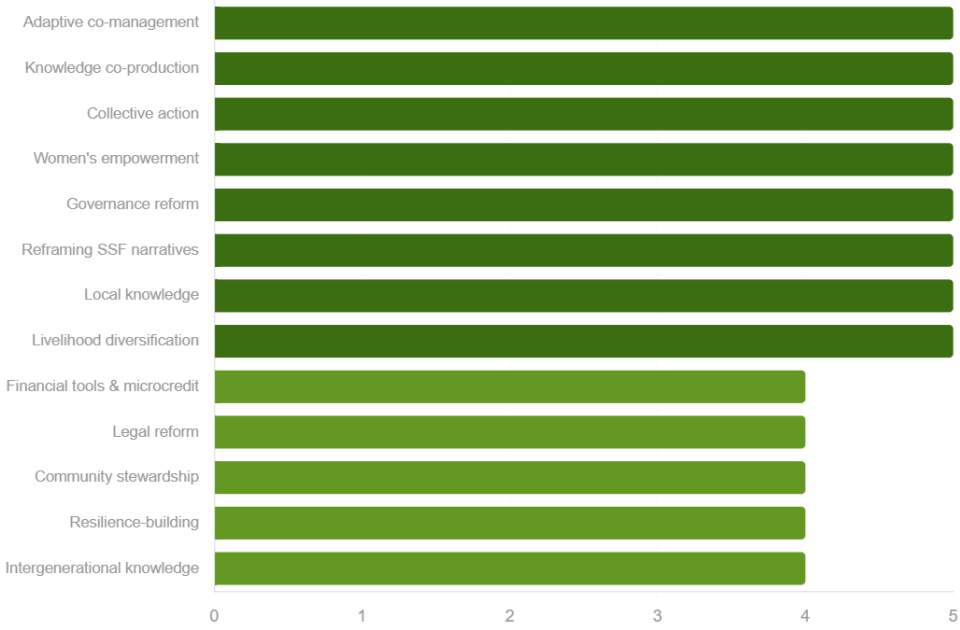
Type / Pathway	Presence Across 5 Years	Years	Classification
Adaptive Co-management	■ ■ ■ ■ ■	5/5	Core
Knowledge Co-production Networks	■ ■ ■ ■ ■	5/5	Core
Collective Action and Self-organization	■ ■ ■ ■ ■	5/5	Core
Women's Empowerment Initiatives	■ ■ ■ ■ ■	5/5	Core
Policy and Governance Reform	■ ■ ■ ■ ■	5/5	Core
Reframing SSF Narratives	■ ■ ■ ■ ■	5/5	Core

Local Knowledge Preservation	■ ■ ■ ■ ■	5/5	Core
Livelihood Diversification	■ ■ ■ ■ ■	5/5	Core
Financial Tools and Microcredit	■ ■ ■ ■ □	4/5	Core
Legal Reform and Rights-based Approaches	■ ■ ■ ■ □	4/5	Emerging
Community Environmental Stewardship	■ ■ ■ ■ □	4/5	Emerging
Resilience-building Through Diversity	■ ■ ■ ■ □	4/5	Emerging
Intergenerational Knowledge Integration	■ ■ ■ ■ □	4/5	Emerging
Blue Justice Advocacy	■ ■ ■ □ □	3/5	Emerging
Digital Technology for Collective Action	■ ■ ■ □ □	3/5	Emerging
Evidence-based Policy	■ ■ ■ □ □	3/5	Emerging
Nature-based Solutions	■ ■ □ □ □	2/5	Emerging
Locally led Adaptation	■ ■ □ □ □	2/5	Emerging
Labor Rights Reform	■ ■ □ □ □	2/5	Emerging
Grassroots Mobilization	■ ■ □ □ □	2/5	Emerging
Fisher Self-monitoring and Participatory Data	■ ■ □ □ □	2/5	Emerging
Sustainable Stock Management	■ □ □ □ □	1/5	New
Social Capital Building through CBFM	■ □ □ □ □	1/5	New
Loss and Damage Financing	■ □ □ □ □	1/5	New
Marine Bioregionalism	■ □ □ □ □	1/5	New
Blue Tenure and Marine Tenure Rights	■ □ □ □ □	1/5	New
Island Circular Metabolism	■ □ □ □ □	1/5	New

Key Finding: All eight Core pathways are fundamentally social, political, and relational rather than technical. No single pathway produces viability; successful transitions consistently involve multiple reinforcing pathways simultaneously.

Note. Filled squares represent years in which the pathway was identified as a significant theme. Empty squares represent years in which the pathway was absent or peripheral. The eight pathways present across all five years constitute the Core canon of SSF transition support strategies.

Figure 6 Transitional pathways by years present



Note. Each bar represents the number of years (out of five) in which the pathway was identified as a significant theme. Dark green bars indicate Core pathways present across all five years; lighter green bars indicate Emerging pathways present across two to four years. A key finding is that all eight Core pathways are fundamentally social, political, and relational rather than technical interventions, a pattern that has significant implications for how SSF support programs are designed and evaluated. Only the 13 most frequently documented pathways are shown; the complete list of 27 pathways is presented in 13 in the text above.

5.4.1 Every Effective Pathway Is About Power, Not Technique

The single most analytically significant finding in the pathway analysis is that the eight Core pathways present across all five years are, without exception, fundamentally social, political, and relational rather than technical. Adaptive co-management is not a management algorithm, but a governance relationship built on trust, shared power, and genuine learning (Berkes, 2009; Trimble, 2022; Njaya, 2022). Knowledge co-production is not a data generation protocol but a political practice of epistemic inclusion (Norström et al., 2020; Jentoft, 2025). Collective action is not an organizational efficiency strategy but a form of community political power (Haque and Uddin, 2021; Prado, 2024). Women's empowerment is not a beneficiary targeting mechanism but a transformation of the gender relations that produce exclusion (Collins, 2023; Mukherjee, 2024;

Fakoya, 2024). Local knowledge preservation is not an archiving exercise but a political assertion of epistemological legitimacy (Mandal, 2023; Jentoft, 2025).

This political character of effective SSF pathways challenges the dominant paradigm of SSF development assistance, which systematically favors technically sophisticated, externally designed, and objectively measurable interventions precisely because they are more easily funded, implemented, and evaluated by international organizations and development agencies (Armitage et al., 2017; Chuenpagdee and Jentoft, 2018). The V2V webinar series provides five years of cumulative evidence that the pathways most consistently associated with genuine SSF viability transitions are precisely those that resist this technocratic logic.

5.4.2 The Law Is Not Optional: Rights as the Architecture of Change

One of the most significant developments documented in the pathway analysis is the progressive institutionalization of rights-based approaches across the series, tracing a coherent political arc from Rouhani's (2022) constitutional rights arguments in South Africa to Areola's (2023) SSF Guidelines domestication analysis in Nigeria to Vipul Singh's (2024) Bihar CBFM Act case study to Nakamura's (2025) international legal framework analysis. Together, these contributions build what might be described as the legal architecture of SSF viability: the formal legal frameworks, from constitutional rights to national legislation to international guidelines to emerging blue tenure instruments, that are necessary enabling conditions for any durable SSF viability transition.

The emergence of loss and damage financing (Khan, 2023) and blue tenure rights (Muhl, 2025) as new pathway codes in the later years of the series suggests that this rights-based architecture is extending into new international governance domains. This emerging global rights

architecture for SSF represents one of the most significant governance innovations of the decade, and the V2V webinar series has documented its development in real time.

5.4.3 No Single Pathway Ever Won Alone

The most compelling cases of viability transition presented across five years of the series are those in which multiple pathways operated simultaneously and reinforced each other across governance, livelihood, knowledge, and legal domains. The Bihar CBFM case (Vipul Singh, 2024) combined legal reform, co-management, collective action, and financial access. The Brazilian artisanal fisheries case (Prado, 2024) combined scientific self-monitoring, legal advocacy, narrative reframing, and grassroots mobilization. The Lake Chiuta transboundary management case (Njaya, 2022) combined community-led governance, collective action, and cross-border cooperation. The Tanguar Haor wetland restoration case (Irfanullah, 2022) combined nature-based solutions, locally-led adaptation, and community environmental stewardship.

These multi-pathway cases reveal a fundamental design principle of SSF viability transitions: viability is not produced by any single intervention but by the interaction of multiple reinforcing pathways that simultaneously address different dimensions of the structural vulnerability compound (Ostrom, 2009; Chuenpagdee and Jentoft, 2018). This principle calls for SSF support programs designed with sufficient flexibility, time horizon, and cross-domain scope to support multiple pathways simultaneously, evaluated not by narrow output metrics but by whether a constellation of reinforcing pathways has moved a community meaningfully closer to viability across multiple dimensions (Armitage et al., 2017). Knowing which pathways work in general is not the same as knowing which pathways work where. The typology developed in the next section closes that gap.

5.5 Not All SSF Communities Are Vulnerable in the Same Way: An Original Typology

One of the three principal contributions of this thesis is an original typology of SSF vulnerability-viability transition contexts, developed inductively from the integrated analysis of vulnerability types and transitional pathways across all five years of the webinar series. The motivation for this typology is practical as well as theoretical. A practitioner in Bangladesh facing blue economy displacement, a researcher working with colonial exclusion contexts in West Africa, and a policymaker addressing climate vulnerability in the Caribbean are not facing the same problem in different settings. They are facing genuinely different problems that require genuinely different combinations of pathways. Treating them the same, as most SSF programming does, is not merely inefficient but potentially counterproductive. The typology presented in Table 14 is a first attempt to fill the gap that no existing study has addressed: a systematic map of the correspondence between specific vulnerability configurations and the specific pathway combinations most likely to be effective in addressing them (Dias et al., 2023a), grounded in the evidence of 59 webinar sessions across five years.

The typology identifies five distinct SSF vulnerability-viability transition contexts, each characterized by a dominant vulnerability configuration and a corresponding set of effective pathways. These are not mutually exclusive categories: real communities often exhibit multiple transition contexts simultaneously. The typology is therefore best understood as an analytical and practical tool for identifying which combination of pathways deserves priority in a given context, rather than as a rigid classification system.

A community's position within this typology is also not fixed or terminal. Progress toward viability in any of the five transition contexts identified here is not guaranteed to be permanent: the same vulnerabilities that first produced a given context can re-emerge, and pathways that were once effective can lose their force if the political, economic, or ecological conditions sustaining them shift. Blue economy displacement (Blythe, 2022) is itself an illustration of this reversibility, showing how communities that had achieved a measure of viability can be pushed back toward vulnerability by new development pressures. The typology should therefore be read as a map of the transition contexts observed within the 2021 to 2025 period studied, not as a claim that transitions, once achieved, are permanent or irreversible.

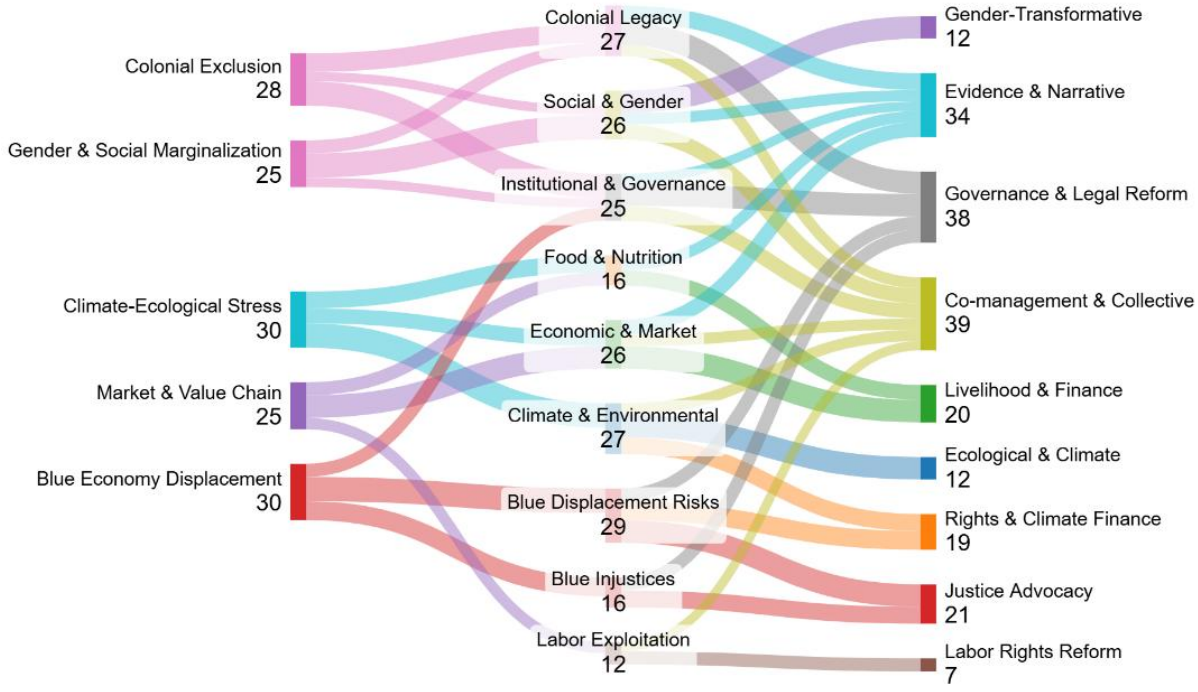
Table 14

Original Typology of SSF Vulnerability-Viability Transition Contexts

Type	Context, Vulnerabilities, and Pathways	Illustrative Cases from V2V Series
Type 1 Colonial Exclusion Contexts	**Vulnerabilities:** Colonial legacy exclusion; institutional governance failure; legal supply chain vulnerability **Pathways:** Legal reform; constitutional rights advocacy; reframing SSF narratives; decolonial governance	Bihar (India), South Africa, Nigeria, Gulf of Guinea
Type 2 Climate-Ecological Stress Contexts	**Vulnerabilities:** Climate and environmental vulnerability; ecosystem degradation; food and nutrition insecurity **Pathways:** Nature-based solutions; locally-led adaptation; loss and damage financing; community environmental stewardship	Bangladesh wetlands, Caribbean SIDS, West Africa pelagic fisheries
Type 3 Blue Economy Displacement Contexts	**Vulnerabilities:** Blue economy displacement risks; procedural and distributive blue injustices; institutional failure **Pathways:** Blue justice advocacy; grassroots mobilization; marine bioregionalism; blue tenure rights	Maheshkhali Island Bangladesh, Karnataka coast India, Latin American SSF
Type 4 Market and Value Chain Exclusion Contexts	**Vulnerabilities:** Economic and market vulnerability; labor exploitation; data poverty **Pathways:** Value chain reform; evidence-based policy; digital technology; loss and damage financing	Bay of Bengal, Senegal artisanal fisheries, West Africa fish4food systems
Type 5 Gender and Social Marginalization Contexts	**Vulnerabilities:** Social and gender vulnerability; colonial legacy exclusion; procedural blue injustices **Pathways:** Gender-transformative approaches; GESI framework; women's empowerment; knowledge co-production	Indian Sundarbans, Nigerian shellfish sector, Karnataka coast, Latin American SSF

Note. This typology is an original contribution of this thesis, derived inductively from the integrated analysis of vulnerability types (RQ2) and transitional pathways (RQ3) across all five years of the V2V webinar series. The five types are not mutually exclusive. Illustrative contexts are drawn from webinar cases documented across the series.

Figure 7 SSF Vulnerability-Viability Transition Typology: A Sankey Flow Map



Note. Flow width represents the strength of connection between transition contexts, vulnerability types, and transitional pathway groups, based on evidence from 59 V2V Global Partnership thematic webinar sessions (2021–2025). Five transition contexts are shown on the left, nine vulnerability types in the middle, and nine transitional pathway groups on the right. The two dominant pathways, Governance and Legal Reform (38) and Co-management and Collective Action (39), confirm that effective SSF transitions are fundamentally political and relational rather than technical. Original typology developed for this study. Adapted from Nayak and Berkes (2014); Jentoft et al. (2022); Blythe et al. (2022).

The Colonial Exclusion context (Type 1) is characterized by the historical dispossession of fishing communities from water access, resource rights, and governance participation through colonial legal frameworks that have persisted into the contemporary period. As documented by Rouhani (2022), Areola (2023), Vipul Singh (2024), and Nyiawung (2025), these contexts require primarily legal and political pathways: constitutional rights-based approaches, SSF Guidelines domestication, and decolonial governance reform.

The Climate-Ecological Stress context (Type 2) requires ecology-oriented pathways including nature-based solutions, locally-led adaptation, and the emerging loss and damage

financing mechanisms documented by Khan (2023). The Blue Economy Displacement context (Type 3) requires justice-advocacy pathways that directly confront the political economy of blue economy development: blue justice advocacy, grassroots mobilization, marine bioregionalism, and blue tenure rights (Muhl, 2025). The Market and Value Chain Exclusion context (Type 4) requires pathways that restructure the economic relationships within which SSF operate. The Gender and Social Marginalization context (Type 5) requires gender-transformative pathways that challenge the power relations producing exclusion rather than simply adding women to existing structures, a cross-cutting context that compounds all other types (Collins, 2023; Mukherjee, 2024; Fakoya, 2024). The typology shows that different transition contexts call for different pathway combinations. What it does not yet explain is why justice sits at the center of every combination, a question the next section answers directly.

5.6 Justice and Viability Are the Same Thing: The Overarching Argument

This section brings the findings of all three research questions together to advance the overarching argument of the thesis, an argument that has been building across every preceding section and that can now be stated directly: justice and viability in SSF are not separate objectives to be balanced against each other in program design. They are the same thing, approached from different angles. Every major vulnerability documented in RQ2 is a specific form of injustice. Every major pathway documented in RQ3 is a specific form of justice in action. And every big idea documented in RQ1 is, at its core, an argument about what genuine viability requires that the vulnerability management paradigm was too timid to name. Table 13 presents the integration matrix mapping these interconnections across the five domains of the V2V Transition Ecosystem

framework. Table 16 maps the justice-viability nexus that constitutes the most theoretically significant and most practically urgent finding of the integrated analysis.

Table 15

Integration Matrix: Big Ideas, Vulnerabilities, and Pathways Across the Five Domains of the V2V Transition Ecosystem Framework

V2V Domain	RQ1: Big Ideas	RQ2: Vulnerabilities	RQ3: Pathways
Ecological	Well-being Ecosystem Services; Nature-based Solutions; Marine Bioregionalism	Climate and Environmental Vulnerability; Ecosystem Degradation; Water Quality	Nature-based Solutions; Community Environmental Stewardship; Sustainable Stock Management
Economic	Viability as Multidimensional; Value Chain Perspective; ESG Sustainability	Economic and Market Vulnerability; Labor Exploitation; Data Poverty	Livelihood Diversification; Financial Tools; Evidence-based Policy; Loss and Damage Financing
Social	Gender as Cross-cutting Dimension; Community Agency; GESI Framework	Social and Gender Vulnerability; Migration and Displacement; Disaster Vulnerability	Women's Empowerment; Collective Action; Grassroots Mobilization
Cultural	Transdisciplinary Knowledge Co-production; Epistemic Justice; Inner Capacity	Colonial and Historical Legacy Exclusion; Psychological Vulnerability	Local Knowledge Preservation; Intergenerational Knowledge; Reframing SSF Narratives
Institutional	Governance Reform; Blue Justice; Just Transformations; Blue Tenure	Institutional and Governance Vulnerability; Blue Economy Displacement; Procedural Injustices	Adaptive Co-management; Legal Reform; Policy Reform; Blue Justice Advocacy
Cross-cutting Mechanisms: Transdisciplinary Knowledge Co-production | Community Agency | Gender Equity and Social Inclusion			

Note. Each row represents one of the five domains of the V2V Transition Ecosystem framework. Cross-cutting mechanisms span all domains and all research questions.

Table 16

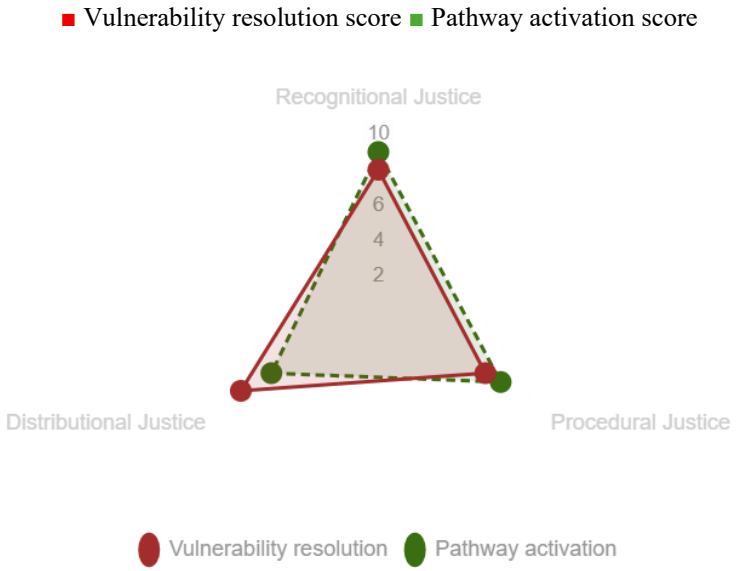
The Justice-Viability Nexus: Three Blue Justice Dimensions Mapped to Corresponding Vulnerabilities and Enabling Pathways

Justice Dimension	Definition	Corresponding Vulnerability (RQ2)	Enabling Pathway (RQ3)
Recognitional Justice	Acknowledging SSF communities as legitimate actors with rights, history, knowledge, and cultural identity (Jentoft et al., 2022)	Colonial legacy exclusion; devaluation of local knowledge; SSF data invisibility (Franz et al., 2023)	Illuminating Hidden Harvest; reframing SSF narratives; local knowledge preservation; decolonial governance
Procedural Justice	Ensuring genuine, meaningful SSF participation in governance processes and decision-making at all scales (Blythe et al., 2022)	Procedural blue injustices; institutional exclusion; ministerial absolute discretion in fisheries management	Adaptive co-management; participatory research; fisher self-monitoring; grassroots mobilization; SSF Guidelines

Distributional Justice	Ensuring fair sharing of benefits and burdens across SSF communities, genders, and generations (Schlosberg, 2007)	Economic market vulnerability; blue economy displacement; value chain power asymmetry; IUU fishing losses	Legal reform; loss and damage financing; social capital building; women's empowerment; CBFM; blue tenure

Note. The three dimensions of blue justice (Jentoft et al., 2022; Blythe et al., 2022; Schlosberg, 2007) map systematically onto the vulnerability types and transitional pathways identified in the analysis. Every major vulnerability corresponds to a specific justice failure; every major pathway operates through a specific justice mechanism.

Figure 8 Justice-viability nexus radar chart



Note. The radar chart maps two analytical dimensions across the three blue justice dimensions identified by Jentoft et al. (2022) and Blythe et al. (2022): the degree to which each justice dimension addresses a corresponding vulnerability type (vulnerability resolution score, shown in red), and the degree to which each justice dimension is operationalized through a corresponding transitional pathway (pathway activation score, shown in green). Scores are qualitative analytical interpretations derived from the integrated thematic analysis rather than raw frequency counts and are intended to illustrate the systematic correspondence between justice dimensions, vulnerabilities, and pathways rather than to make precise quantitative claims.

5.6.1 SSF Transitions Are Political Fights, Not Development Projects

The integration of findings across three research questions and five years of discourse produces a conclusion that is both analytically powerful and practically urgent: SSF transitions from vulnerability to viability are not developmental processes through which communities progress with the right combination of technical assistance and financial support. They are political

processes through which communities assert, negotiate, and defend their rights to resources, governance participation, and cultural recognition in the face of persistent structural opposition from industrial fisheries interests, coastal development agendas, colonial governance legacies, and institutional inertia.

This political character is visible in every domain of the integration matrix. In the ecological domain, marine bioregionalism (Kurien, 2025) and blue tenure rights (Muhl, 2025) represent political claims about who governs marine ecological spaces. In the economic domain, IUU fishing losses (Sumaila, 2021) and fishmeal industry displacement (Ayilu, 2025) reveal economic vulnerability as the product of political arrangements that systematically favor industrial over artisanal fishing interests. In the social domain, Collins's (2023) insistence on gender-transformative rather than gender-additive approaches is a claim that genuine social transformation requires challenging power relations. In the cultural domain, Jentoft's (2025) advocacy for transdisciplinary knowledge co-production asserts the authority of community knowledge systems. In the institutional domain, the documentation of colonial legacy exclusion and the advocacy for constitutional rights-based approaches (Rouhani, 2022; Areola, 2023; Vipul Singh, 2024) make explicit what the other domains imply: that institutional vulnerability is the product of deliberate political choices that can be undone through different political choices (Satizabal et al., 2020).

5.6.2 Every Vulnerability Is a Justice Failure. Every Pathway Is a Justice Mechanism

Table 16 makes visible most theoretically significant finding of the integrated analysis: the systematic correspondence between the three dimensions of blue justice and the vulnerabilities and pathways identified across RQ2 and RQ3. Recognitional injustice produces colonial legacy

exclusion and SSF data invisibility. Procedural injustice produces institutional exclusion and governance opacity. Distributional injustice produces economic vulnerability, blue economy displacement, and value chain extraction.

Justice and viability are not separate objectives to be balanced against each other. They are mutually constitutive: viability that is not just is not genuine viability but a rearrangement of the terms of exclusion (Blythe et al., 2022). Any program that improves economic indicators without addressing recognitional justice, that delivers governance capacity without ensuring procedural justice, or that achieves conservation outcomes without distributive justice is not merely incomplete: it risks reinforcing the structural conditions of vulnerability it purports to address. Blythe (2022) captured this risk through the concept of the dark side of transformation. The V2V webinar series provides abundant empirical evidence for this risk, from Maheshkhali Island displacement (Selim, 2024) to Karnataka coast encroachment (Jyotishi, 2025) to Bangladesh coastal megaproject exclusion (December 2025 webinar).

5.6.3 The V2V Series Is Not Just a Platform, It Is a Knowledge Commons

A further theoretical resource for understanding the V2V series is Ostrom's (1990; 2009) commons theory, which offers a useful lens for the theorization of the V2V Global Partnership thematic webinar series as a knowledge commons.. Ostrom's commons theory was developed to explain how communities collectively govern shared natural resources without the tragedy of the commons predicted by rational choice models (Hardin, 1968). The theory identifies design principles that characterize successfully governed commons: clearly defined boundaries, rules matched to local conditions, collective choice arrangements, monitoring, conflict resolution, recognized rights to organize, and nested governance (Ostrom, 1990).

The V2V webinar series satisfies all eight of these design principles in a knowledge domain rather than a natural resource domain. Its boundaries are clearly defined by the V2V partnership's thematic focus on SSF vulnerability and viability. Its rules are matched to the diverse contexts of its speakers and audiences through the deliberately transdisciplinary and geographically inclusive selection of presenters. Its collective choice arrangements are evident in the collaborative curation of topics and speakers by the V2V partnership community. Like a healthy fishery that sustains yields across generations through good governance, the V2V knowledge commons has sustained intellectual productivity, geographic inclusivity, and thematic coherence across five years. Lang et al. (2012) argue that transdisciplinary research processes generate not only knowledge but relational capital: the relationships, shared vocabulary, and collective commitment among diverse actors that constitute a lasting governance resource. The V2V webinar series has built precisely this kind of relational capital across five years and 59 sessions (Norström et al., 2020). If justice and viability are genuinely mutually constitutive, that claim should be detectable not only in what the webinar series says but in how its own knowledge has developed over time. The final section examines exactly that.

5.7 A Field in Motion: What the Declining Rate of New Ideas Suggests

The final section addresses a finding that initially looks like a methodological observation but turns out, on examination, to be substantively significant. In 2025, the V2V webinar series introduced only three genuinely new codes, namely Marine Bioregionalism (Kurien, 2025), Blue Tenure and Marine Tenure Rights (Muhl, 2025), and ESG and Corporate Sustainability for SSF (Ragavan, 2025), while all other sessions reinforced themes established across 2021 to 2024. This pattern does not indicate that the series has exhausted its analytical territory or that the SSF field

has run out of new ideas, and it should not be read as a claim about the platform's future. What it suggests, within the specific five-year window analyzed in this study, is that the V2V knowledge platform had developed a coherent, stable core framework for understanding SSF vulnerability and viability robust enough to accommodate new empirical cases, new geographic contexts, and new governance developments, an interpretation that remains open to revision as the series continues beyond the period studied here.

Figure 9 *New codes per year*

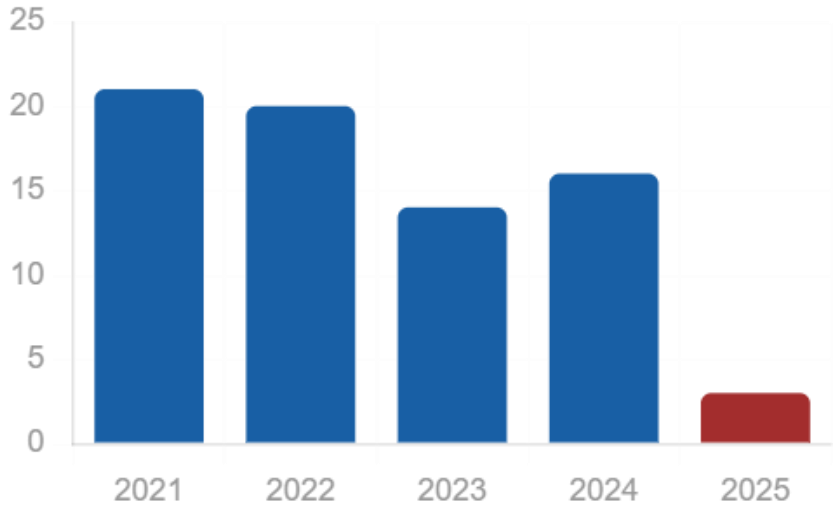
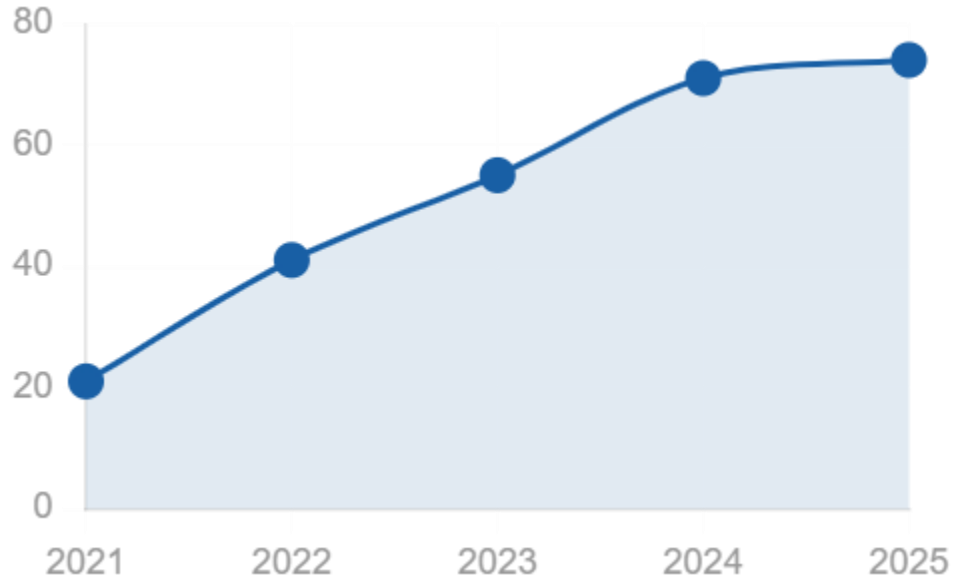


Figure 10 *Cumulative code growth*



5.7.1 A Stabilizing Core Within an Ongoing Series

In qualitative research, thematic saturation describes the point at which new data cease to generate new themes, typically used to indicate that a data corpus is analytically sufficient for a defined research purpose (Guest et al., 2006; Braun and Clarke, 2022). This study uses the concept cautiously and specifically: rather than claiming the V2V series itself has reached a permanent endpoint, this study reports that within the 2021 to 2025 period analyzed, the rate of new code introduction declined sharply, determined through a specific, traceable procedure. For each of the 74 codes in the final codebook, the year of first appearance was recorded, and the number of new codes introduced was counted separately for each year. Only three new codes were introduced across the eleven sessions of 2025, a marked decline relative to the average of the preceding four years, despite 2025 featuring more sessions than any other single year in the series and speakers from diverse geographic and disciplinary backgrounds. This pattern is reported as a bounded

empirical observation about the five-year period studied, not as a prediction about the future productivity of an ongoing knowledge platform that continues to evolve.

Lakatos (1978) describes a mature research program as one whose core is stable and well-defended while its protective belt continues to expand through new empirical and theoretical extensions. The pattern observed in the V2V series within the period studied resembles this structure: a relatively stable core of big ideas, vulnerability types, and transitional pathways established across 2021 to 2024, alongside a still-expanding frontier in 2025 that extends the core into new governance domains. Whether this pattern persists, deepens, or is disrupted by new developments in subsequent years is an empirical question for future research as the V2V series continues, and this study offers its 2021 to 2025 findings as a baseline against which that ongoing evolution can be tracked.

5.7.2 Three New Ideas in 2025 Point to the Next Frontier

The three new codes introduced in 2025 are not departures from the established framework but extensions of it into new governance domains: marine bioregionalism into ecological governance, blue tenure into tenure governance, and ESG-based corporate sustainability into corporate governance. Kurien (2025) argues that ocean governance should be organized around ecologically defined bioregions rather than political borders that fragment the coherent marine systems SSF communities have always recognized and navigated. Muhl (2025) introduces the Blue Tenure Transitions working group as an institutional vehicle for addressing the tenure governance gap that leaves SSF communities without secure, legally recognized rights to their historical fishing territories. Ragavan (2025) opens a conversation about the role of ESG frameworks in

holding corporations accountable for their impacts on SSF communities in contexts where state governance has failed.

These three governance frontiers define the agenda for the next phase of V2V discourse and SSF governance innovation. They share a common logic: extending the justice-viability framework built across 2021 to 2024 into institutional domains, from corporate governance to marine ecological governance to international tenure law, that the existing SSF governance architecture has not yet adequately addressed. The V2V knowledge commons, having developed a relatively stable core within the period studied, is well positioned to continue expanding its frontier into these and other new domains in the years ahead, including domains not yet visible within the 2021 to 2025 data analyzed here.

5.8 Chapter Summary

This chapter has advanced six interconnected arguments about the significance, implications, and theoretical contributions of the findings presented in Chapter Four.

First, the chapter presented the ten best ideas emerging from five years of V2V webinar discourse, with a combinatorial analysis showing how these ideas interact to produce insights greater than any single idea alone. The ten ideas, taken together, constitute what this study terms the V2V Transitions Governance Paradigm: a coherent, justice-centered, community-grounded understanding of SSF transitions that supersedes the vulnerability management paradigm the field has left behind.

Second, the V2V webinar series documents a paradigmatic shift in SSF scholarship and advocacy from vulnerability management to justice assertion, in which the question of how

vulnerable SSF communities are is progressively displaced by the question of how unjust the arrangements are that make them vulnerable. This shift, grounded in the blue justice framework (Jentoft et al., 2022; Blythe et al., 2022; Schlosberg, 2007), demands not merely technical adjustment to SSF programs but paradigmatic reorientation.

Third, the five vulnerability types present across all five years are structural features of the global political economy of fisheries rather than contextual misfortunes, produced by specific institutional arrangements that systematically disadvantage SSF. The compounding dynamics among these vulnerabilities ensure that single-dimension interventions are insufficient, and the moving frontier of blue economy displacement risks demands urgent governance attention.

Fourth, the eight Core transitional pathways are fundamentally social, political, and relational rather than technical, and successful viability transitions consistently involve multiple reinforcing pathways operating simultaneously. The progressive institutionalization of rights-based approaches, from constitutional rights to international SSF Guidelines to emerging blue tenure instruments, represents one of the most significant governance developments in the SSF domain in the past decade.

Fifth, this thesis advances an original typology of five SSF vulnerability-viability transition contexts, the first such typology grounded in a longitudinal, multi-year, geographically comprehensive SSF knowledge corpus. The typology provides a novel analytical and practical tool for identifying which combinations of pathways deserve priority in specific community contexts.

Sixth, the integrated analysis confirms the justice-viability nexus as the central theoretical finding of the thesis: justice and viability are mutually constitutive rather than separate objectives. These six findings are not six independent discoveries but a single argument traced through six

analytical lenses.. The paradigm shift from vulnerability management to justice assertion (first finding) is what made it possible to see vulnerability as structural rather than incidental (second finding). Recognizing vulnerability as structural is what revealed that effective pathways must be social and political rather than technical (third and fourth findings). Mapping how specific vulnerabilities call for specific pathway combinations is what produced the typology (fifth finding). And tracing the correspondence between vulnerabilities, pathways, and justice across every transition context is what revealed the justice-viability nexus itself (sixth finding), the central theoretical claim of this thesis, a pattern further suggested, within the period studied, by the declining rate of new thematic content observed in 2025, which this thesis interprets as a stable feature of SSF expert understanding during 2021 to 2025 rather than a permanent or final state of the V2V knowledge platform. Justice and viability, in other words, are not two separate goals that SSF governance must somehow balance. They are two names for the same transformation, seen from two different angles, and five years of expert discourse converge on that single insight.

CHAPTER SIX

Conclusions

6.1 The Paradox, Revisited

This thesis began with a paradox. Small-scale fisheries are indispensable: they sustain the livelihoods, food security, and cultural identities of hundreds of millions of people across Africa, Asia, Latin America, and the Caribbean, contributing 77 billion USD in annual value and supporting approximately 500 million people globally (Franz et al., 2023). And yet they are precarious: systematically undervalued in official statistics, underrepresented in governance processes, and underprotected in the legal frameworks that regulate the marine and freshwater resources on which they depend. They are, in the sharpest possible formulation, communities that the world could not survive without but that the world's governance systems are failing.

Five chapters of systematic analysis have not dissolved this paradox. What they have done is far more useful: they have given it a name, traced its roots, mapped its mechanisms, and pointed toward the governance innovations through which it can, over time and with sustained political will, begin to be resolved. The analysis of 59 V2V Global Partnership thematic webinar sessions spanning January 2021 to December 2025, organized through the tri-layered conceptual framework of the V2V Transition Ecosystem and guided by reflexive thematic analysis (Braun and Clarke, 2022), has produced three original contributions to SSF scholarship and governance whose significance extends well beyond the boundaries of any single study.. This concluding chapter presents those contributions, addresses their implications, acknowledges the study's limitations, and identifies the research directions most urgently needed to carry the work forward.

But before any of that, one thing deserves to be said plainly: behind the 74 codes, the five transition context types, the justice-viability nexus, and the knowledge commons theorization are real people. They are the Mala fishers of Bihar who waited generations for the legal rights that finally enabled their livelihoods to thrive. The women of the Indian Sundarbans who transformed themselves from project assistants into primary knowledge producers while working in conditions of daily precarity. The families of Maheshkhali Island who were displaced from fishing grounds their grandparents used, without consultation, without compensation, and without a pathway back. The communities of West Africa who watch the fish they have always caught migrate northward as the ocean warms and find the industrial demand for fishmeal competing for what remains. This thesis exists because of them. Its purpose is ultimately to serve them, even when the distance between academic analysis and community livelihood feels impossibly vast.

6.2 What the Study Found: A Synthesis of Principal Findings

6.2.1 A Field Has Shifted Its Paradigm

The most consequential finding of this study is not empirical but epistemological. Across five years and 59 sessions, the V2V webinar series documents a paradigmatic shift in how SSF scholars and advocates understand the nature of SSF vulnerability and the conditions of SSF viability. In the vulnerability management paradigm that dominated SSF scholarship through much of the late twentieth and early twenty-first centuries, the primary analytical question was how vulnerable SSF communities are and what external actors can do to help them cope, adapt, or diversify. In the justice assertion paradigm that the V2V series has progressively articulated and consolidated, the primary analytical question is who made SSF communities vulnerable, through

what institutional, political, and historical arrangements, and who is accountable for changing those arrangements (Blythe et al., 2022; Jentoft et al., 2022; Schlosberg, 2007).

This is not a subtle semantic difference. It changes the locus of responsibility, the nature of the appropriate response, and the identity of the agents most centrally involved in SSF transitions. A vulnerability management response delivers technical assistance, improves fishing practices, and diversifies livelihoods while leaving intact the governance arrangements, market structures, and legal frameworks that produced vulnerability in the first place. A justice assertion response challenges those arrangements directly, demanding legal reform, governance inclusion, tenure security, and distributional equity as preconditions for any durable improvement in SSF community wellbeing. The V2V webinar series has been one of the primary engines of this paradigmatic shift, providing the transdisciplinary, publicly accessible platform through which it has been theorized, debated, documented, and disseminated to a global community of SSF researchers, practitioners, and advocates.

6.2.2 Vulnerability Was Made. It Can Be Unmade

The analysis of 18 vulnerability codes across five years confirms what political ecology has argued but not previously demonstrated with this degree of longitudinal and geographic comprehensiveness: SSF vulnerability is not a natural or developmental condition but a structural political arrangement. The five vulnerability types present across all five years of the series, spanning economic and market, climate and environmental, institutional and governance, food and nutrition security, and social and gender vulnerability, are not coincidental misfortunes distributed randomly across fishing communities. They are the systematic outcomes of specific governance arrangements: legal frameworks inherited from colonial administrations that extinguished

traditional resource rights, market structures designed to extract value from fishers and transfer it to industrial intermediaries, development agendas that prioritize coastal economic growth over community livelihoods, and governance systems built around industrial fishing interests rather than small-scale community uses (Satizabal et al., 2020; Bene, 2009; Jentoft et al., 2011).

These vulnerabilities compound each other in recursive feedback loops that make single-dimension interventions structurally inadequate. Colonial dispossession removes legal standing, which removes governance participation, which removes the capacity to resist economic exploitation, which deepens food insecurity, which entrenches gender marginalization, which undermines collective action capacity, which makes legal reform more difficult to achieve. The cases of Bihar (Vipul Singh, 2024), South Africa (Rouhani, 2022), Nigeria (Areola, 2023), and the Gulf of Guinea (Nyiawung, 2025) all illustrate this compounding dynamic across radically different national contexts, suggesting that colonial-institutional compounding is a general feature of SSF vulnerability rather than a regional peculiarity. And the emerging vulnerability types documented from 2022 onward, particularly blue economy displacement risks (Blythe et al., 2022; Selim, 2024; Jyotishi, 2025), reveal that the frontier of SSF vulnerability is expanding rather than contracting as blue economy development accelerates globally.

6.2.3 No Single Pathway. No Shortcut. No Delivery

The analysis of 27 transitional pathway codes across five years reveals a pattern that should fundamentally challenge how SSF development assistance is designed. The eight pathways most consistently associated with genuine SSF viability transitions across all five years of the series are adaptive co-management, knowledge co-production, collective action, women's empowerment, governance reform, narrative reframing, local knowledge preservation, and livelihood

diversification. Without exception, all eight are fundamentally social, political, and relational rather than technical interventions. None of them can be designed by experts and delivered to communities. All of them require community agency, political engagement, and relational transformation as their primary mechanism of effectiveness.

The most compelling cases of viability transition documented across the series are invariably those in which multiple pathways operated simultaneously and reinforced each other across governance, livelihood, knowledge, legal, and gender domains. The Bihar CBFM Act case (Vipul Singh, 2024) combined legal reform, co-management, collective action, and financial access. The Brazilian fisher self-monitoring advocacy (Prado, 2024) combined scientific self-monitoring, legal challenge, narrative reframing, and grassroots political mobilization. The Lake Chiuta transboundary management arrangement (Njaya, 2022) combined community-led governance, collective action, and cross-border cooperation that neither government had managed alone. The principle these cases collectively establish is both simple and practically demanding: viability transitions are not produced by any single intervention, however well-resourced, but by the interaction of multiple reinforcing pathways that simultaneously address different dimensions of the structural vulnerability compound.

6.2.4 Justice and Viability Are Inseparable

The integrated analysis of big ideas, vulnerabilities, and pathways across the five domains of the V2V Transition Ecosystem framework produces the most theoretically significant finding of the study: justice and viability are not separate objectives to be balanced against each other in SSF governance design. They are mutually constitutive dimensions of SSF transition whose separation is both intellectually incoherent and practically dangerous. Every major vulnerability

documented in the analysis corresponds to a specific justice failure. Economic vulnerability is distributional injustice. Institutional exclusion is procedural injustice. Colonial legacy dispossession is recognitional injustice. And every major pathway operates through a specific justice mechanism: co-management is procedural justice in practice, legal reform is distributional and recognitional justice in institutional form, narrative reframing is recognitional justice in action.

The corollary of this finding is equally important. Viability that is not achieved through just processes is not genuine viability but a rearrangement of the terms of exclusion (Blythe et al., 2022). Development programs that improve economic indicators without addressing recognitional justice, that deliver governance capacity without ensuring procedural inclusion, or that achieve conservation outcomes without distributional equity are not merely incomplete: they actively risk reproducing the structural conditions of vulnerability they purport to address. The blue economy displacement cases documented across Bangladesh, India, and Latin America demonstrate this risk with painful empirical clarity (Selim, 2024; Jyotishi, 2025; Prado et al., 2024). The justice-viability nexus is not a theoretical aspiration: it is an empirically grounded design principle whose violation consistently produces the outcomes documented in these cases.

6.2.5 A Stabilizing Core Within an Evolving Knowledge Platform

The final principal finding concerns the V2V webinar series itself as a knowledge-producing institution within the period studied. The near absence of genuinely new thematic codes in 2025, with only three new codes introduced across the eleven sessions of that year featuring speakers from diverse geographic and disciplinary backgrounds, suggests a pattern that is simultaneously methodological and substantive in its significance. Methodologically, it supports the analytical adequacy of the five-year data corpus for the purposes of this study. Substantively,

it indicates that within 2021 to 2025, the V2V Global Partnership developed a coherent and relatively stable core framework for understanding SSF vulnerability and viability, one that proved robust enough to accommodate new empirical cases, new geographic contexts, and new governance developments without requiring fundamental conceptual revision during the years analyzed.

This finding should not be read as a claim that the work of the V2V series is complete, nor that its future thematic development is predictable or bounded. The V2V Global Partnership continues as an active, ongoing initiative, and subsequent years may well introduce substantial new theoretical departures that this study, limited to data through December 2025, cannot anticipate. What this finding does suggest is that the series had, by 2025, built a conceptual foundation stable enough to support the next phase of SSF governance reform, while remaining open to the kind of genuine extension already visible in the three new 2025 codes: marine bioregionalism, blue tenure rights, and ESG-based corporate sustainability. These three additions indicate that the series' capacity for genuine theoretical innovation remains active even as its early core has stabilized, and the present study offers its 2021 to 2025 findings as a baseline for tracking how that capacity continues to unfold in the years ahead.

6.3 What This Thesis Contributed

This study makes three principal contributions to SSF scholarship and governance. Table 17 presents each contribution alongside what it adds to the existing literature and its practical significance for SSF governance and policy.

Table 17

Seven Principal Contributions of This Thesis to SSF Scholarship and Governance

Seven Principal Contributions of This Thesis			
#	**Contribution**	**What It Adds to SSF Scholarship**	**Practical Significance**
1	**Original tri-layered conceptual framework: The V2V Transition Ecosystem**	Integrates the V2V vulnerability-to-viability axis, the blue justice evaluative lens, and SES theory into the first SSF framework that simultaneously addresses direction of change, quality of transitions, and systemic context	Provides SSF researchers and governance designers a comprehensive analytical tool that none of its three constituent frameworks could provide alone
2	**Original typology of five SSF vulnerability-viability transition contexts**	Maps specific vulnerability configurations to effective pathway combinations, the first such typology grounded in a longitudinal, multi-year, geographically comprehensive SSF knowledge corpus derived from 59 expert sessions	Gives policymakers, NGOs, and community organizations a context-specific diagnostic tool for identifying which pathway combinations deserve priority in specific SSF situations
3	**Justice-viability nexus as central theoretical finding**	Demonstrates empirically that justice and viability are mutually constitutive: every major vulnerability corresponds to a specific justice failure, and every major pathway operates through a specific justice mechanism	Reframes the design criteria for all SSF programs: any intervention achieving viability through unjust processes is reinforcing, not addressing, the conditions it purports to change

Note. Contributions are presented in the order in which they are developed across Chapters Two, Three, and Five. Each addresses a specific gap in the existing SSF literature identified in Chapter Two and advances a specific theoretical or practical insight developed through the analysis presented in Chapters Four and Five.

6.4 What This Means for the People Who Matter

The findings of this study carry significant and specific implications for the diverse actors who shape SSF governance globally. Table 18 presents the principal implications organized by audience, with recommended actions grounded in the evidence of 59 webinar sessions across five years.

Table 18

Implications for SSF Policy and Practice by Audience

Audience	Key Implication	Recommended Action
National Policymakers	SSF vulnerability is structural and political rather than technical or developmental. The five Core vulnerability types documented across all five years of the series are features of governance arrangements that can and must be reformed through deliberate political action.	Prioritize legal reform, SSF Guidelines domestication, and rights-based tenure security as the primary instruments for SSF vulnerability reduction rather than technical fisheries management interventions alone.

Development Organizations and Donors	The eight Core transitional pathways are all social, political, and relational rather than technical. Single-issue, short-term, externally designed interventions are structurally inadequate to compound SSF vulnerability regardless of how well-resourced they are.	Redesign SSF programs around multi-pathway constellations with sufficient time horizons, cross-domain scope, and genuine community leadership. Evaluate programs not by narrow output metrics but by whether they move communities closer to viability across multiple dimensions simultaneously.
SSF Community Organizations	The typology of five transition contexts provides a practical diagnostic framework for identifying which combination of pathways deserves priority given a specific community's dominant vulnerability configuration.	Use the typology as a community-led diagnostic tool to identify the specific governance, legal, ecological, economic, or gender dimensions of vulnerability that most urgently require attention before designing transition strategies.
International Governance Bodies	Blue tenure rights, loss and damage financing, and marine bioregionalism represent the emerging frontier of SSF governance innovation, extending the rights-based architecture of the SSF Guidelines into new institutional domains that are currently underserved.	Accelerate the development of blue tenure legal frameworks in key SSF regions, ensure SSF communities have direct and accessible pathways to Loss and Damage Fund resources, and explore bioregional governance frameworks for shared SSF spaces that transcend national jurisdictions.
SSF Researchers	The justice-viability nexus confirmed by this study provides a powerful evaluative framework for assessing whether SSF governance changes are genuinely producing viability or merely rearranging the terms of exclusion at the expense of marginalized communities.	Apply the justice-viability nexus as an evaluative lens in future SSF research, assessing all governance interventions simultaneously for their recognitional, procedural, and distributional justice dimensions alongside their technical effectiveness.
V2V Global Partnership	The theorization of the webinar series as a knowledge commons highlights the governance innovation value of the V2V model, which produced a coherent and relatively stable analytical framework during its first five years of sustained transdisciplinary co-production, with continued evolution expected in subsequent years.	Continue the series with focus on the expanding governance frontier while using the established thematic framework to actively support SSF governance reform advocacy. Consider replicating the V2V knowledge commons model for other sustainability domains facing similar transdisciplinary knowledge gaps.

***Note*.** Implications are derived from the integrated findings of Chapters Four and Five. Recommended actions are intended as evidence-grounded starting points for deliberation rather than universal prescriptions, and their appropriateness will vary by local governance conditions, community priorities, and institutional capacity.

Three cross-cutting implications deserve emphasis beyond the audience-specific recommendations in Table 18.

First, the findings collectively make an urgent case for reforming how SSF development assistance is designed, funded, and evaluated. The consistent evidence across five years of expert discourse that effective SSF transitions require multi-pathway, politically engaged, justice-oriented approaches that support community agency rather than substitute for it stands in direct and uncomfortable tension with the prevailing architecture of SSF development programming. Closing the gap between what the evidence says works and what institutional funding structures and programmatic cultures tend to support is not merely an analytical challenge: it is the central

practical challenge facing the SSF governance community in the coming decade, and it requires deliberate institutional reform rather than incremental program improvement.

Second, the emerging governance frontiers documented in the 2025 webinars represent urgent institutional needs, not merely interesting academic developments. Blue tenure frameworks are needed now to protect SSF communities from displacement by conservation and development initiatives before their grounds are gone. Loss and damage financing mechanisms need direct community access pathways now before another generation of climate losses accumulates without redress. Marine bioregional governance frameworks need to be designed and piloted now before further decades of national jurisdiction fragmentation render the ecological commons of shared SSF spaces irreparably degraded. The gap between the conceptual sophistication of these emerging governance innovations and the institutional arrangements that would make them real is one of the most significant governance challenges in the global SSF domain.

Third, and perhaps most importantly, the justice-viability nexus established by this study provides a new and demanding standard against which all SSF programs, policies, and governance arrangements should be evaluated. The question is not whether an intervention improves productivity, income, or ecological health. The question is whether it does so through processes that are recognitionally just, procedurally inclusive, and distributionally equitable. Applying this standard consistently and rigorously to every SSF governance decision would require significant changes in how programs are designed, how communities are engaged, and how success is measured. It would also, the evidence of this study suggests, produce more durable, community-owned, and genuinely viable transitions than any technically sophisticated program that leaves justice dimensions unaddressed.

6.5 Limitations of the Study

This study has four principal limitations that are acknowledged transparently, both to establish the boundaries of the claims its findings support and to guide future research that extends and deepens its contributions.

6.5.1 Single Institutional Data Source

The analysis is based solely on the V2V Global Partnership thematic webinar series, which, despite its impressive geographic and disciplinary diversity, reflects the perspectives and priorities of a specific institutional network with particular commitments, partnerships, and inevitable blind spots. Speakers who were not invited to the series, perspectives not adequately represented within the V2V network, and voices from SSF communities themselves as distinct from the researchers, practitioners, and policymakers who work with those communities are not directly present in the data. The findings of this study represent what the global SSF scholarly and practitioner community assembled by the V2V partnership has thought, debated, and produced across five years. This is enormously valuable, but it is not equivalent to a comprehensive survey of all SSF expert knowledge globally. Future research should complement this study with primary qualitative data generated through direct community engagement, particularly in regions and thematic areas that the webinar series has not adequately represented.

6.5.2 Absence of Direct Community Voice

The webinar series, while geographically diverse and transdisciplinary in its speaker composition, primarily features researchers, practitioners, and policymakers who work with SSF communities rather than SSF community members speaking in their own voice and on their own

terms. The perspectives, experiential knowledge, and governance priorities of fishing communities themselves are therefore present in this study indirectly, mediated through the analytical frameworks and advocacy positions of expert intermediaries rather than expressed directly by community members. This is an inherent limitation of the data source rather than an analytical choice, and it means that the findings of this study, however geographically comprehensive and thematically rich, cannot claim to represent the full range of SSF community knowledge, lived experience, and governance priorities. Future research that complements this study with primary qualitative data generated through direct engagement with SSF communities, particularly through participatory and community-led methodologies, would significantly deepen and ground the insights produced here.

6.5.3 The Interpretive Character of Reflexive Thematic Analysis

Reflexive thematic analysis, as Braun and Clarke (2022) describe it, is an interpretive practice whose outputs are shaped by the analytical choices, theoretical commitments, and positionality of the researcher. A different researcher, or the same researcher at a different moment or with a different theoretical orientation, might have constructed somewhat different themes from the same data corpus. This is not a methodological flaw but an inherent and acknowledged characteristic of qualitative research, addressed through the transparency measures described in Chapter Three: the structured codebook maintained throughout the analysis, the explicit acknowledgment of the researcher's positionality as a Bangladeshi Masters student embedded in the V2V partnership, and the systematic grounding of all analytical claims in traceable references to the webinar data. These measures minimize but cannot eliminate the influence of researcher subjectivity, and this limitation should be understood as a condition of the method rather than a critique of the analysis.

6.5.4 English as the Sole Language of the Data Corpus

The V2V webinar series is conducted entirely in English, which introduces a linguistic and epistemological bias into both the knowledge it produces and the knowledge this study synthesizes. Concepts, governance arrangements, ecological knowledge systems, and community experiences embedded in local languages and knowledge traditions across Africa, Asia, Latin America, and the Caribbean may not be fully translatable into English academic discourse, and the insights of speakers whose primary language and intellectual tradition is not English may be partially filtered through the demands of academic English expression. This linguistic limitation is a structural feature of the data source rather than an analytical choice of this study, but it places real constraints on the comprehensiveness and cultural inclusivity of the knowledge produced, and it should inform the design of future V2V webinar programming as well as future research that seeks to extend and ground the findings of this study in diverse linguistic and cultural contexts.

6.5.5. No Direct Measurement of Reversal from Viability to Vulnerability

Because this study analyzes expert discourse about SSF transitions rather than tracking specific communities' outcomes over time, it is not positioned to measure how often or under what conditions communities move backward from viability toward vulnerability. The webinar series' discussion of blue economy displacement and the dark side of transformation strongly suggests that such reversals occur, but establishing their frequency, triggers, and duration is a task for future longitudinal community-level research rather than this discourse-based study.

6.6 Where the Research Needs to Go Next

The findings of this study open several important directions for future inquiry that would extend, deepen, validate, and practically ground the theoretical and empirical contributions developed here. Table 19 presents six priority research directions, each grounded in a specific gap or opportunity identified by the analysis.

Table 19

Priority Directions for Future Research

Research Direction	Specific Research Question	Recommended Approach
Community-level validation of the transition typology	Do SSF communities in diverse regional contexts recognize themselves in the five transition context types, and do the pathway recommendations aligned with each type correspond with their own experience of effective transition strategies?	Participatory action research with SSF communities across multiple geographic contexts using the typology as a diagnostic and planning tool, co-developed with community members as co-researchers
Continued longitudinal tracking of the V2V knowledge commons	How does the V2V webinar series evolve after thematic stabilization in 2025, and do the emerging governance frontier themes of marine bioregionalism, blue tenure, and ESG-based sustainability generate genuinely new theoretical departures in subsequent years?	Continuation of the reflexive thematic analysis methodology developed in this study, applied to V2V webinar sessions from 2026 onward with attention to both confirming and departing themes
Operationalizing the justice-viability nexus as a program assessment tool	Can the systematic correspondence between justice dimensions, vulnerability types, and transitional pathways be translated into a practical assessment instrument for evaluating SSF programs before, during, and after implementation?	Mixed-methods instrument development combining the blue justice framework with indicator design, expert validation, and field testing across diverse SSF program contexts in partnership with development organizations
Blue tenure governance effectiveness	Where formal or semi-formal blue tenure arrangements have been established, what governance conditions determine whether tenure security translates into measurable	Comparative case study analysis of blue tenure governance arrangements across the Western Indian Ocean, Southeast Asia, and Latin America, using the

	improvements in SSF viability outcomes across multiple domains?	V2V Transition Ecosystem framework as the analytical lens
SSF community access to the Loss and Damage Fund	What institutional and governance conditions enable SSF community-based organizations to successfully access the Loss and Damage Fund, and what forms of capacity support are most effective in facilitating direct community access?	Policy analysis and stakeholder interviews with SSF organizations, climate finance institutions, and international advocacy networks with experience in navigating international climate finance mechanisms
Gender-transformative approaches in diverse SSF contexts	In SSF contexts where gender-transformative approaches have been formally implemented, what specific program design features most effectively challenge the underlying gender relations producing exclusion rather than merely adding women to existing governance structures?	Feminist participatory action research with women in SSF across diverse geographic and institutional contexts, prioritizing co-production of findings with women community members as knowledge producers and co-authors

Note. Research directions are organized in approximate order of their proximity to the findings of this study, from those that most directly extend its methodological and theoretical contributions to those that apply its findings in new empirical and institutional contexts. All six directions are grounded in gaps identified through the analysis presented in Chapters Four and Five.

6.7 A Final Word: What Viability Actually Requires

A thesis is a peculiar object. It takes years to produce, occupies hundreds of pages, cites dozens of scholars, and advances arguments whose significance it is almost impossible to assess from inside the process of producing them. What it cannot do, for all its analytical sophistication, is fish. It cannot feed a family or sustain a community. It cannot restore a mangrove ecosystem, reverse a colonial law, or stop a liquid natural gas terminal from being built on fishing grounds that have sustained a community for generations.

What it can do is contribute, in however limited and indirect a way, to the accumulation of knowledge and the development of frameworks that make it harder to ignore SSF communities'

vulnerability, easier to name the injustice that produces it, and more analytically defensible to insist on the governance reforms that could begin to resolve it. It can demonstrate, as this study has, that the vulnerability of SSF communities is not a natural fact or a developmental stage but a political arrangement, and that political arrangements can be changed through sustained collective action, legal reform, governance inclusion, and the kind of transdisciplinary knowledge co-production that the V2V Global Partnership has been practicing and modeling for five years.

The V2V webinar series has produced something remarkable across five years of monthly transdisciplinary discourse: a shared language, a common analytical framework, a geographically inclusive network, and a cumulative body of evidence that the global SSF community can use to make its case to governments, development organizations, international bodies, and the broader public. This thesis is the first systematic synthesis of that body of evidence. Its three contributions are offered to that ongoing project not as conclusions but as tools: analytical instruments that researchers, practitioners, policymakers, and community advocates can use and improve upon in the work of building the governance systems that SSF communities need.

What those communities need, ultimately, is straightforward to state even when it is enormously difficult to achieve: governance that recognizes their rights, institutions that include their voices, markets that distribute value fairly, legal frameworks that protect their territories, and development agendas that treat their livelihoods as ends rather than as obstacles. They need, in the precise language developed across five years of V2V discourse, blue justice rather than merely blue growth. They need viability on just terms, not merely survival on unjust ones. And they need a global scholarly and practitioner community that is willing to hold that standard, apply it consistently, and keep advocating for it even when the institutional inertia of development programming and national governance pulls in the opposite direction.

That is the work. This thesis is one small contribution to it.

6.8 The Foundation Has Been Laid

This chapter has concluded the thesis by revisiting the organizing paradox of SSF indispensability and precarity, synthesizing the five principal findings of the study, presenting three original contributions to SSF scholarship and governance, addressing implications for six distinct audiences, acknowledging four principal limitations, and identifying six priority directions for future research. It has closed with a reflection on the relationship between scholarly knowledge production and the real-world needs of SSF communities, arguing that the most meaningful contribution scholarship can make is to make structural injustice visible, nameable, and contestable in ways that support the communities most directly affected by it.

The thesis as a whole has demonstrated three things that the SSF literature has separately argued but not previously shown together with this degree of longitudinal, geographically comprehensive, and systematically analyzed evidence: that SSF vulnerability is structural and political rather than natural or developmental; that effective SSF transitions require justice-oriented, multi-pathway, community-led approaches rather than single-issue technical interventions; and that justice and viability are mutually constitutive rather than separate objectives in SSF governance design. The V2V Transition Ecosystem framework, the typology of five transition contexts, and the justice-viability nexus together constitute an analytical architecture adequate to the complexity of SSF transitions and powerful enough to inform the next generation of SSF governance reform advocacy and practice.

What remains is the governance work that scholarship can inspire but cannot do alone. The legal reforms. The institutional innovations. The community empowerment programs. The international financing mechanisms. The patient, political, relational, justice-oriented labor through which SSF communities, supported by researchers and advocates who understand the structural depth of what they face, move from vulnerability to viability on their own terms and in their own time.

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Note. This consolidated bibliography includes all sources cited across the six chapters of the thesis. V2V webinar presenters are cited as primary data sources in APA format. Webinar entries marked [V2V Global Partnership Thematic Webinar] are primary data sources derived from the V2V Global Partnership Thematic Webinar Series (2021-2025), University of Waterloo. The complete data corpus is listed in Table 5 of Chapter Three.

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Part B: V2V Global Partnership Thematic Webinar Series (Primary Data Sources)

Note. All entries below are primary data sources cited as [V2V Global Partnership Thematic Webinar]. University of Waterloo. Entries marked TR were analyzed as full video recordings; entries marked VR were analyzed from published video recordings. See Table 5 for the complete data corpus.

Akintola, S. L. (2024, July). West Africa SSF vulnerabilities and viability pathways [V2V Global Partnership Thematic Webinar]. University of Waterloo.

Allison, E. H. (2022, February). Aquatic food systems and SSF [V2V Global Partnership Thematic Webinar]. University of Waterloo.

Areola, F. O. (2023, March). Legal instruments and SSF governance in Nigeria [V2V Global Partnership Thematic Webinar]. University of Waterloo.

Arias Schreiber, M. (2022, May). Blue justice vocabulary and SSF governance [V2V Global Partnership Thematic Webinar]. University of Waterloo.

Arizi, E. K. (2023, July). Sustainable fisheries management in Ghana [V2V Global Partnership Thematic Webinar]. University of Waterloo.

Ayilu, R. (2025, June). Trade in small fish in West Africa: Artisanal fish4food systems entangled in fishmeal [V2V Global Partnership Thematic Webinar]. University of Waterloo.

Barragan, X. (2021, June). Galapagos SSF and COVID-19 responses [V2V Global Partnership Thematic Webinar]. University of Waterloo.

Bavinck, M. (2021, May). Legal pluralism and SSF governance [V2V Global Partnership Thematic Webinar]. University of Waterloo.

Berkes, F. (2022, April). Resilience theory and SSF adaptive capacity [V2V Global Partnership Thematic Webinar]. University of Waterloo.

Berkes, F., & Franz, N. (2025, February). Governing for transformation towards sustainable SSF [V2V Global Partnership Thematic Webinar]. University of Waterloo.

Blythe, J. (2022, June). Just transformations and ocean equity [V2V Global Partnership Thematic Webinar]. University of Waterloo.

Braun, V., & Clarke, V. (2022). Thematic analysis: A practical guide. SAGE Publications.

Charles, T. (2022, January). Environmental stewardship in SSF [V2V Global Partnership Thematic Webinar]. University of Waterloo.

Chaudhary, A. (2023, April). Indian philosophy and vulnerability-viability [V2V Global Partnership Thematic Webinar]. University of Waterloo.

Chetri, S. (2022, March). Happiness, mindfulness and GNH in SSF [V2V Global Partnership Thematic Webinar]. University of Waterloo.

Cohen, P. (2021, February). Transformation of small-scale fisheries [V2V Global Partnership Thematic Webinar]. University of Waterloo.

Collins, A. (2023, February). Gender analysis in resource governance [V2V Global Partnership Thematic Webinar]. University of Waterloo.

Das, B. (2023, November). Wetlands, Ganga fisheries and climate change [V2V Global Partnership Thematic Webinar]. University of Waterloo.

Das, J. (2025, December). Blue transitions in the crowded coast of Bangladesh [V2V Global Partnership Thematic Webinar]. University of Waterloo.

Dias, A. C. E. (2021, December). Well-being ecosystem services bundles in Brazil [V2V Global Partnership Thematic Webinar]. University of Waterloo.

Espinosa-Romero, M. J. (2022, November). Digital connectivity and SSF: The Pescadata app [V2V Global Partnership Thematic Webinar]. University of Waterloo.

Fakoya, K. (2024, March). Shell fisheries and mangrove conservation in Nigeria [V2V Global Partnership Thematic Webinar]. University of Waterloo.

Franz, N. (2023, May). Illuminating hidden harvest: FAO global SSF study [V2V Global Partnership Thematic Webinar]. University of Waterloo.

Haque, M. M., & Uddin, M. N. (2021, August). Disaster resilience in Bangladesh SSF [V2V Global Partnership Thematic Webinar]. University of Waterloo.

Hynie, M. (2021, July). Migration and SSF communities [V2V Global Partnership Thematic Webinar]. University of Waterloo.

Irfanullah, H. M. (2022, August). Nature-based solutions and locally-led adaptation in Bangladesh [V2V Global Partnership Thematic Webinar]. University of Waterloo.

Islam, G. (2024, May). Social capital and SSF livelihood security [V2V Global Partnership Thematic Webinar]. University of Waterloo.

Jentoft, S. (2025, January). What is transdisciplinary? Think jazz! [V2V Global Partnership Thematic Webinar]. University of Waterloo.

Johnson, D. (2021, September). Dried fish and SSF livelihoods [V2V Global Partnership Thematic Webinar]. University of Waterloo.

Jyotishi, A. (2025, July). Dispossession in the coastal space: Karnataka, India [V2V Global Partnership Thematic Webinar]. University of Waterloo.

Khan, H. (2023, December). COP28 loss and damage fund and SSF [V2V Global Partnership Thematic Webinar]. University of Waterloo.

Kurien, J. (2025, April). Envisioning marine bioregionalism for small-scale fisheries [V2V Global Partnership Thematic Webinar]. University of Waterloo.

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Mandal, M. K. (2023, January). Community resilience and adaptive research methods [V2V Global Partnership Thematic Webinar]. University of Waterloo.

Marschke, M., & Vandergeest, P. (2022, September). Labor rights in distant water fishing [V2V Global Partnership Thematic Webinar]. University of Waterloo.

Muhl, E.-K. (2025, October). Access, rights and equity for blue tenure transitions in SSF [V2V Global Partnership Thematic Webinar]. University of Waterloo.

Mukherjee, J. (2024, June). Gender equity and social inclusion in the Indian Sundarbans [V2V Global Partnership Thematic Webinar]. University of Waterloo.

Nakamura, J. (2025, August). Transforming international governance through the SSF guidelines [V2V Global Partnership Thematic Webinar]. University of Waterloo.

Nauen, C. (2021, October). SSF academy and capacity building in Senegal [V2V Global Partnership Thematic Webinar]. University of Waterloo.

Nikku, B. R. (2024, September). Disaster resilience of SSF: Andhra Pradesh, India [V2V Global Partnership Thematic Webinar]. University of Waterloo.

Njaya, F. (2022, December). Transboundary fisheries governance: Lake Chiuta [V2V Global Partnership Thematic Webinar]. University of Waterloo.

Nyiawung, R. (2025, March). A transboundary governance approach for SSF in the Gulf of Guinea [V2V Global Partnership Thematic Webinar]. University of Waterloo.

Nair, N. V. (2023, August). Water quality and SSF viability: Chilika Lagoon [V2V Global Partnership Thematic Webinar]. University of Waterloo.

Parida, P. K. (2023, September). Inland open water fisheries in India [V2V Global Partnership Thematic Webinar]. University of Waterloo.

Patnaik, P. (2024, October). Green energy, technology and resilience in SSF [V2V Global Partnership Thematic Webinar]. University of Waterloo.

Pittman, C. (2021, November). Adaptive capacity in Caribbean SSF [V2V Global Partnership Thematic Webinar]. University of Waterloo.

Pradhan, S. (2023, June). Social-ecological value chain perspectives: Bay of Bengal [V2V Global Partnership Thematic Webinar]. University of Waterloo.

Prado, D. (2024, August). Blue injustices and conflict transformation in Latin American SSF [V2V Global Partnership Thematic Webinar]. University of Waterloo.

Ragavan, H. R. (2025, November). ESG risks and opportunities in the blue economy: Malaysia [V2V Global Partnership Thematic Webinar]. University of Waterloo.

Rouhani, Q. (2022, July). Decolonising inland fisheries governance in South Africa [V2V Global Partnership Thematic Webinar]. University of Waterloo.

Salas, S. (2021, April). Vulnerability in Latin American SSF [V2V Global Partnership Thematic Webinar]. University of Waterloo.

Sall, A. (2024, April). Market and technology in Senegal SSF transitions [V2V Global Partnership Thematic Webinar]. University of Waterloo.

Selim, S. (2024, February). Resilience and transitions in Bangladesh SSF [V2V Global Partnership Thematic Webinar]. University of Waterloo.

Singh, S. J. (2024, January). Food and nutrition insecurity in the Caribbean SIDS [V2V Global Partnership Thematic Webinar]. University of Waterloo.

Singh, V. (2024, November). Historical dimensions of inland fisheries governance in Bihar, India [V2V Global Partnership Thematic Webinar]. University of Waterloo.

Sumaila, U. R. (2021, January). Trade, IUU fishing and blue justice in SSF [V2V Global Partnership Thematic Webinar]. University of Waterloo.

Susilowati, I. (2025, May). Blue economy, blue growth and blue justice for transitions toward viability in Indonesia [V2V Global Partnership Thematic Webinar]. University of Waterloo.

Swerdfager, T. (2023, October). Fisheries management decision-making in Canada [V2V Global Partnership Thematic Webinar]. University of Waterloo.

Trimble, M. (2022, October). Participatory co-management in Uruguay [V2V Global Partnership Thematic Webinar]. University of Waterloo.

Van Putten, I. (2021, March). Legal and illegal supply chains in Papua New Guinea SSF [V2V Global Partnership Thematic Webinar]. University of Waterloo.

V2V Global Partnership. (2024, December). Four-year retrospective: V2V webinar series highlights [V2V Global Partnership Thematic Webinar]. University of Waterloo.

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Appendix A
V2V Global Partnership

MASTER CODEBOOK

Thematic Webinar Series 2021-2025

Thesis Title: From Vulnerability to Viability in Small-Scale Fisheries: A Thematic Synthesis of Insights from the V2V Global Partnership Webinars

Author: Shahriyer Hossain Shetu | ID: 21172616

Methodology: Braun and Clarke (2022) Reflexive Thematic Analysis | Constructivist Paradigm

Data: 59 V2V Thematic Webinar Sessions (2021-2025) | 48 Full Transcripts + 11 Video Recordings

Total Codes: 74 codes across 3 Research Questions

Citation Style: APA 7th Edition

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1. Codebook Overview and Summary Statistics

This Master Codebook consolidates all 74 thematic codes identified through systematic reflexive thematic analysis of 59 V2V Global Partnership thematic webinar sessions spanning January 2021 to December 2025. Codes are organized by the three research questions (RQs) guiding the thesis, with year-by-year tracking across all five years to show thematic evolution and consolidation across the complete webinar series.

1.1 Code Status Legend

Symbol	Meaning	Status	Definition
✓ (present)	Code present that year	**CORE (3-5 yrs)**	Code appears across 3 to 5 years -foundational persistent theme of the webinar series
(blank)	Code absent that year	**EMERGING (2-4 yrs)**	Code grows across 2 to 4 years -developing theme gaining traction over time
RQ1 / RQ2 / RQ3	Research question	**NEW (1 yr)**	Code introduced in one year only -novel contribution or emergent theme requiring further development

1.2 Summary Statistics by Research Question

Research Question	Total	Core (3-5 yrs)	Emerging (2-4 yrs)	New (1 yr)	% Core
RQ1 -Big Ideas and Emerging Themes	**29**	8	13	8	28%
RQ2 -Vulnerabilities Faced by SSF	**18**	8	7	3	44%
RQ3 -Transitional Pathways to Viability	**27**	9	12	6	33%
OVERALL TOTALS -All Three Research Questions	**74**	25	32	17	34%

2. Thematic Evolution 2021-2025

The following table maps the dominant thematic trajectory of the webinar series across all five years, showing how the collective intellectual focus shifted from foundational mapping (2021) through theory-building (2022), evidence consolidation (2023), and action and justice frameworks (2024), reaching a marked stabilization of new thematic content by 2025.

Year	Thematic Focus	Key New Themes Introduced or Reinforced	Dominant Speakers	Phase
2021	**Mapping Vulnerabilities**	Blue justice and equity; Viability as multidimensional; Well-being ecosystem services; COVID-19 as catalyst; Co-management; Gender cross-cutting	Sumaila, Cohen, Van Putten, Salas, Bavinck, Johnson, Dias	**Foundation**
2022	**Theorizing Solutions**	Resilience as complement; Just transformations; Nature-based solutions; Labor rights; Digital connectivity; Happiness and inner capacity	Berkes, Blythe, Arias Schreiber, Irfanullah, Trimble, Charles	**Theory-Building**
2023	**Consolidating Evidence and Policy**	Illuminating Hidden Harvest; Loss and damage financing; Inland fisheries; Water quality; Sustainable stock management; Evidence-policy chain	Franz, Swerdfager, Mandal, Khan, Parida, Nair, Das	**Evidence and Policy**
2024	**Action, Justice and Historical Grounding**	GESI framework; Conflict transformation; Disaster justice; Colonial history; Island metabolism; CBFM success stories; Social capital	Prado, V. Singh, Nikku, Mukherjee, Gazi Islam, Simron Singh, Akintola	**Action and Justice**
2025	**Stabilizing Framework**	Marine Bioregionalism (NEW -Kurien); Blue Tenure Rights (NEW -Muhl); ESG for SSF (NEW -Ragavan); All prior Core themes confirmed and reinforced	Jentoft, Berkes and Franz, Nyiawung, Kurien, Susilowati, Ayilu, Jyotishi, Nakamura, Muhl, Ragavan, Das	**Stabilizing**

Note. Each phase represents the dominant thematic orientation of that year's webinar sessions. Phases are not mutually exclusive but reflect the primary analytical shift of each year. The 2025 finding of declining new thematic content suggests that the V2V webinar series had, within the period studied, developed a relatively stable core consistent with Lakatos's (1978) conception of a developing research program, while the series itself continues to evolve beyond this study's scope.

3. Cross-cutting Themes Spanning All Research Questions

These themes cut across all three research questions and represent the strongest thematic threads running through the entire five-year series. They are especially important for the Discussion chapter as they represent the intellectual spine of the V2V webinar series.

Cross-cutting Theme	Years Present	How It Evolves Across the Series
Gender as Cross-cutting Lens	All 5 years	Appears across RQ1 (structural analysis), RQ2 (gendered vulnerability), and RQ3 (empowerment pathways). Deepens from migration and gender (2021) to gender as social structure (2023) to GESI framework (2024) to blue economy displacement of women (2025).
Blue Justice and Equity	All 5 years	Core organizing concept linking all three RQs. Moves from conceptual vocabulary (2022) to just transformations critique (2022-23) to operational conflict transformation toolkit (2024) to blue justice indicators and blue tenure (2025).
Governance Reform	All 5 years	Runs through co-management, legal pluralism, SSF guidelines, and decolonization. Culminates in historical analysis (Bihar 2024), community-led governance success stories, and SSF Guidelines as international law (Nakamura 2025).
Knowledge Co-production	All 5 years	Foundational V2V method. Evolves from transdisciplinary networks to non-traditional methodology to community science to fisher self-monitoring to transdisciplinarity as jazz (Jentoft 2025).
Community Agency	All 5 years	SSF communities as active agents not passive victims. Reinforced every year through different empirical contexts across Africa, Asia, Latin America, Caribbean, and Indonesia.
Climate Change Nexus	All 5 years	Threads through all RQs. Moves from direct impact assessment to NbS/LLA responses to loss and damage financing to disaster justice frame works to pelagic migration and coastal megaprojects (2025).
Data Poverty and Evidence Gaps	2022-2025	Growing recognition that SSF remain data poor. Addressed through IHH (2023), data-limited stock assessment (2023), self-monitoring by fishers (2024), and Illuminating Hidden Harvest (Berkes and Franz 2025).
Resilience-Viability Linkage	2022-2025	Resilience explicitly connected to viability pathway. Berkes (2022) theoretical grounding to community resilience cases to Patnaik resilience driver's framework (2024) to new generation of fisheries managers (2025).

4. Thematic Codes by Research Question

The following three tables present all 74 codes organized by research question, with year-by-year presence tracking across 2021 to 2025, key speakers, key evidence, and status classifications.

Table A - RQ1: Big Ideas and Emerging Themes (29 codes)

RQ1 | Big Ideas and Emerging Themes | What key themes and big ideas have emerged from V2V webinar discussions enabling SSF transition from vulnerability to viability?								
Total codes: 29 | Core (3-5 yrs): 8 | Emerging (2-4 yrs): 13 | New (1 yr): 8								
Code / Theme	**2021**	**2022**	**2023**	**2024**	**2025**	**Key Speakers**	**Key Evidence**	**Status**
Blue Justice and Equity	✓	✓	✓	✓	✓	Sumaila (2021), Arias Schreiber (2022), Blythe (2022), Franz (2023), Prado (2024), Susilowati (2025)	13-concept justice glossary; 10 blue growth risks; conflict transformation; blue justice indicators Indonesia; blue tenure rights	CORE (3-5 yrs)
Transdisciplinary Knowledge Co-production	✓	✓	✓	✓	✓	Cohen (2021), Berkes (2022), Mandal (2023), Mukherjee (2024), Jentoft (2025)	SSF transformation through multiple knowledge systems; adaptive methodology; GESI co-production; transdisciplinarity as jazz metaphor	CORE (3-5 yrs)
Viability as Multidimensional	✓	✓	✓	✓	✓	Dias (2021), Allison (2022), Franz (2023), Patnaik (2024), Berkes and Franz (2025)	WEBS; aquatic food systems SDG links; IHH global evidence; resilience-viability nexus; governing for transformation	CORE (3-5 yrs)
Adaptive Capacity as Pathway	✓	✓	✓	✓	✓	Pittman (2021), Berkes (2022), Selim (2024), Nikku (2024), Jentoft (2025)	Adaptive capacity in Caribbean; coping-adapting-transforming; Bangladesh chronicles; disaster resilience; jazz metaphor for adaptation	CORE (3-5 yrs)
Governance Reform and Co-management	✓	✓	✓	✓	✓	Bavinck (2021), Trimble (2022), Areola (2023), Gazi (2024), Nakamura (2025)	Legal pluralism; Uruguay fisheries councils; Nigerian SSF policy; Bihar Act 2006; SSF Guidelines as international law	CORE (3-5 yrs)
Gender as Cross-cutting Dimension	✓	✓	✓	✓	✓	Hynie (2021), Collins (2023), Franz (2023), Mukherjee (2024), Fakoya (2024), Ayilu (2025)	Migration and gender; gender as social structure; 45M women in SSF; GESI framework; women displaced by blue economy	CORE (3-5 yrs)
Community Agency and Self-organization	✓	✓	✓	✓	✓	Johnson (2021), Mandal (2023), Prado (2024), V. Singh (2024), Susilowati (2025)	DFM livelihood agency; frugal autonomous innovation; fisher self-monitoring Brazil; CBFM community	CORE (3-5 yrs)

							ownership; Indonesia coastal agency	
Crisis as Opportunity / COVID as Catalyst	✓	✓	✓			Barragan (2021), Espinosa-Romero (2022), Selim (2024)	COVID revealed SSF vulnerabilities AND resilience; Galapagos responses; digital transition; Bangladesh double shock	CORE (3-5 yrs)
Well-being Ecosystem Services Bundles (WEBS)	✓	✓	✓	✓		Dias (2021), Simron Singh (2024)	Linking ecosystem services to social well-being in Brazil; island metabolism; SDG alignment	CORE (3-5 yrs)
Resilience as Complement to Vulnerability		✓	✓	✓	✓	Berkes (2022), Mandal (2023), Patnaik (2024), Nikku (2024), Berkes and Franz (2025)	Coping-adapting-transforming triad; community resilience wheels; new generation of fisheries managers	EMERGING (2-4 yrs)
Blue Economy vs. Blue Justice Tension		✓	✓	✓	✓	Blythe (2022), Espinosa-Romero (2022), Prado (2024), Akintola (2024), Susilowati (2025)	Just transformations framework; 10 blue growth risks; blue injustice typologies Latin America; West Africa IUU	EMERGING (2-4 yrs)
Just Transformations Framework		✓		✓	✓	Blythe (2022), Prado (2024), Susilowati (2025)	Recognitional, procedural, distributional justice pillars; conflict transformation; dark side of transformation; blue justice indicators	EMERGING (2-4 yrs)
Epistemic Justice -Naming SSF Injustice		✓		✓	✓	Arias Schreiber (2022), Prado (2024), Nakamura (2025)	13-concept glossary; 9 blue injustice typologies Latin America; SSF Guidelines as epistemic legitimation	EMERGING (2-4 yrs)
Digital Connectivity and Collective Action		✓		✓	✓	Espinosa-Romero (2022), Patnaik (2024), Ayilu (2025)	Pescadata app 1,800+ fishers; ICT as resilience driver; V2V information system; digital fish4food tracking	EMERGING (2-4 yrs)
Transboundary Fisheries Governance		✓	✓		✓	Njaya (2022), Parida (2023), Nyiawung (2025)	Lake Chiuta MOU Malawi-Mozambique; India-Bangladesh transboundary research; Gulf of Guinea governance	EMERGING (2-4 yrs)
Happiness, Mindfulness and Inner Capacity		✓	✓			Chetri (2022), Chaudhary (2023)	GNH framework; inner space vs. external space; sukha/dukha vulnerability-viability model; Indic worldview	EMERGING (2-4 yrs)
Nature-based Solutions (NbS) for SSF		✓	✓			Irfanullah (2022), Parida (2023)	LLA principles; Tanguar Haor restoration; IUCN 8-criteria standard; pen culture as NbS for wetlands	EMERGING (2-4 yrs)
Illuminating Hidden Harvest -Global Evidence			✓	✓		Franz (2023), Allison (2022)	58-country study; 40% global capture from SSF; 500M people; 45M	EMERGING (2-4 yrs)

							women; 77B USD value; nutrition pathways	
Social-Ecological Value Chain Perspective			✓	✓	✓	Pradhan (2023), Sall (2024), Ayilu (2025)	SES-oriented dried fish value chain Bay of Bengal; market and technology as dual V2V drivers in Senegal; fish4food systems West Africa	EMERGING (2-4 yrs)
Non-traditional / Adaptive Research Methodology			✓	✓	✓	Mandal (2023), Nikku (2024), Jentoft (2025)	Brain-swarming; collective case studies; community science; digital storytelling; transdisciplinarity as jazz	EMERGING (2-4 yrs)
Evidence-Policy Chain and Data-to-Decision Complexity			✓	✓	✓	Swerdfager (2023), V. Singh (2024), Nakamura (2025)	Canadian DFO black-box decision making; law drives program design; SSF Guidelines law-policy feedback	EMERGING (2-4 yrs)
Climate Loss and Damage Financing			✓	✓		Khan (2023), Akintola (2024)	COP28 Loss and Damage Fund $760M; trigger-based disbursement; CBO direct access pathway	EMERGING (2-4 yrs)
Historical Dimensions of Fisheries Governance				✓		V. Singh (2024)	Colonial Bihar Jalkar water taxes dispossessing Mala community; decolonization of inland fisheries; CBFM as redress	NEW (1 yr)
Island Social Metabolism and Food System Resilience				✓		Simron Singh (2024)	Caribbean SIDS; 83% food import dependency; social metabolic risk; cascading tipping points; circular metabolism	NEW (1 yr)
Disaster Justice and Community Science				✓		Nikku (2024)	Sendai Framework applied to coastal SSF; disaster resilience futures; narrative therapy; rights-based disaster response	NEW (1 yr)
GESI (Gender Equity and Social Inclusion)				✓		Mukherjee (2024)	World Bank GESI guidance; Indian Sundarbans women cooperatives; unexpected gender empowerment	NEW (1 yr)
Blue Injustice and Conflict Transformation (Latin America)				✓		Prado (2024)	73 case studies 10 countries; active social mobilization; fisher self-monitoring; participatory scenarios workshops	NEW (1 yr)
Social Capital and SSF Livelihood Security				✓		Gazi (2024)	Bangladesh and Malaysia CBFM; bonding/bridging/linking capital; CBO legal rights; trust in communities	NEW (1 yr)

Marine Bioregionalism					✓	Kurien (2025)	Ocean governance organized around ecological bioregions not political borders; SSF communities as bioregional knowledge holders	NEW (1 yr)
ESG and Corporate Sustainability for SSF					✓	Ragavan (2025)	ESG framework applied to blue economy corporate actors; SSF supply chain sustainability; corporate accountability for SSF impacts	NEW (1 yr)
✓ = Code present that year CORE = 3-5 years EMERGING = 2-4 years NEW = 1 year								

Table B - RQ2: Vulnerabilities Faced by SSF Communities (18 codes)

RQ2 | Vulnerabilities Faced by SSF Communities | What types of vulnerabilities do SSF communities face and what are the driving factors behind them?								
Total codes: 18 | Core (3-5 yrs): 8 | Emerging (2-4 yrs): 7 | New (1 yr): 3								
Code / Theme	**2021**	**2022**	**2023**	**2024**	**2025**	**Key Speakers**	**Key Evidence**	**Status**
Economic and Market Vulnerability	✓	✓	✓	✓	✓	Sumaila (2021), Sall (2024), Pradhan (2023), Ayilu (2025)	IUU fishing and trade; middlemen extracting 80-90% revenue; value chain power asymmetry; fishmeal demand competing with fish for food	CORE (3-5 yrs)
Climate and Environmental Vulnerability	✓	✓	✓	✓	✓	Pittman (2021), Irfanullah (2022), Das (2023), Nikku (2024), Ayilu (2025)	Hurricane/cyclone impacts; NbS climate responses; wetland degradation; 85% wetlands may be lost; pelagic fish migrating northward	CORE (3-5 yrs)
Institutional and Governance Vulnerability	✓	✓	✓	✓	✓	Van Putten (2021), Rouhani (2022), Swerdfager (2023), Akintola (2024), Nakamura (2025)	Legal supply chain gaps; colonial apartheid exclusion; DFO black-box system; IUU $2.3-9.4B losses West Africa; SSF Guidelines implementation gaps	CORE (3-5 yrs)
Food and Nutrition Security Vulnerability	✓	✓	✓	✓	✓	Johnson (2021), Allison (2022), Franz (2023), Simron Singh (2024), Ayilu (2025)	Dried fish micronutrients; aquatic food systems; IHH nutrition pathways; 68% SIDS food insecurity; West Africa fish for food vs fishmeal	CORE (3-5 yrs)
Social and Gender Vulnerability	✓	✓	✓	✓	✓	Hynie (2021), Collins (2023), Mukherjee (2024), Jyotishi (2025)	Migration and gender intersectionality; gender as social structure; women in dried fish sector;	CORE (3-5 yrs)

							hajira workers no recognition; women displaced Karnataka	
Migration and Displacement	✓	✓		✓	✓	Hynie (2021), Blythe (2022), Nikku (2024), Nyiawung (2025)	Climate migration as transformational adaptation; Andhra fishers seasonal migration; Gulf of Guinea migrant fishers governance exclusion	CORE (3-5 yrs)
Pandemic Disruption (COVID-19)	✓	✓	✓	✓		Barragan (2021), Selim (2024), Simron Singh (2024)	COVID-19 double shock in Bangladesh; Galapagos adaptation; SIDS cascading food insecurity; seafarer trapped at sea	CORE (3-5 yrs)
Legal and Supply Chain Vulnerability	✓	✓	✓			Van Putten (2021), Marschke and Vandergeest (2022), Areola (2023)	Illegal PNG supply chains; migrant labor exploitation; Nigerian laws outdated with $1 fines; no SSF definition in law	CORE (3-5 yrs)
Colonial and Historical Legacy Exclusion		✓	✓	✓	✓	Rouhani (2022), Areola (2023), V. Singh (2024), Nyiawung (2025)	South Africa inland fishers criminalized; Nigeria colonial fisheries law; Bihar Jalkar water tax dispossession since 1819; Gulf of Guinea colonial borders	EMERGING (2-4 yrs)
Climate-induced Ecosystem Degradation		✓	✓	✓	✓	Irfanullah (2022), Das (2023), Nikku (2024), Fakoya (2024), Ayilu (2025)	Locally-led adaptation limits; wetland losses; mangrove 2.15% Africa loss; 1m sea level rise impacts; shifting fish distribution	EMERGING (2-4 yrs)
Blue Economy Displacement Risks		✓		✓	✓	Blythe (2022), Selim (2024), Prado (2024), Jyotishi (2025)	10 documented displacement risks; Maheshkhali Island 200 families displaced; Karnataka coast women displaced; Latin America port encroachment	EMERGING (2-4 yrs)
Data Poverty and Institutional Gaps		✓	✓	✓		Allison (2022), Parida (2023), Swerdfager (2023), Akintola (2024)	Aquatic food systems under-invested; inland fisheries data-limited; Canada DFO black-box; West Africa IUU unquantified	EMERGING (2-4 yrs)
Labor Exploitation and Forced Labor		✓		✓	✓	Marschke and Vandergeest (2022), Akintola (2024), Ayilu (2025)	Distant water fisheries violence; 2–3-year contracts; no shore access; West Africa piracy linked to IUU; fish4food labor conditions	EMERGING (2-4 yrs)

Psychological and Spiritual Vulnerability		✓	✓			Chetri (2022), Chaudhary (2023)	GNH inner space quality; unhappiness as vulnerability driver; karma-resilience connection; learned helplessness	EMERGING (2-4 yrs)
Procedural and Distributive Blue Injustices				✓	✓	Prado (2024), Susilowati (2025)	45% of Latin America SSF injustices are distributive/social; restricted territory access; legislation criminalizing SSF; Indonesia blue justice gaps	EMERGING (2-4 yrs)
Water Quality Degradation			✓			Nair (2023), Das (2023)	Chilika Lagoon hydrological parameters; eutrophication; salinity variation; fish biodiversity loss 1950-2015	NEW (1 yr)
Disaster Vulnerability in Coastal SSF				✓		Nikku (2024), Akintola (2024)	Andhra Pradesh cyclones; 30% coastline erosion; feminization of coastal communities when men migrate; rights violations	NEW (1 yr)
Food and Nutrition Insecurity in SIDS				✓		Simron Singh (2024)	83% Caribbean food imports; only 10% SIDS meet iodine RDA; poverty trap 68% food insecure; COVID amplification	NEW (1 yr)

✓ = Code present that year CORE = 3-5 years EMERGING = 2-4 years NEW = 1 year

Table C -RQ3: Transitional Pathways to Viability (27 codes)

RQ3 | Transitional Pathways to Viability | What transitional pathways and processes are identified in the webinars as means of moving SSF from vulnerability to viability?

Total codes: 27 | Core (3-5 yrs): 9 | Emerging (2-4 yrs): 12 | New (1 yr): 6

Code / Theme	2021	2022	2023	2024	2025	Key Speakers	Key Evidence	Status
Adaptive Co-management	✓	✓	✓	✓	✓	Bavinck (2021), Trimble (2022), Arizi (2023), Gazi (2024), Nakamura (2025)	Legal pluralism approaches; Uruguay POPA; Ghana closed seasons; Bangladesh CBFM 20,000 beneficiaries; SSF Guidelines co-management framework	CORE (3-5 yrs)
Knowledge Co-production Networks	✓	✓	✓	✓	✓	Cohen (2021), Berkes (2022), Mandal (2023), Mukherjee (2024), Jentoft (2025)	Transdisciplinary SSF transformation; SES knowledge bridges; adaptive methodology; Sundarbans co-production	CORE (3-5 yrs)

							workshops; transdisciplinarity as jazz	
Collective Action and Self-organization	✓	✓	✓	✓	✓	Haque and Uddin (2021), Njaya (2022), Prado (2024), Nyiawung (2025)	Bangladesh disaster resilience; Lake Chiuta community-led TFM; Brazilian fisher grassroots mobilization; Gulf of Guinea transboundary cooperation	CORE (3-5 yrs)
Women's Empowerment Initiatives	✓	✓	✓	✓	✓	Dias (2021), Collins (2023), Mukherjee (2024), Fakoya (2024), Ayilu (2025)	WEBS gender dimensions; gender-transformative approaches; Sundarbans SHG inland fishing; shellfish women cooperatives Nigeria; West Africa women in fish4food	CORE (3-5 yrs)
Policy and Governance Reform	✓	✓	✓	✓	✓	Bavinck (2021), Rouhani (2022), Areola (2023), V. Singh (2024), Nakamura (2025)	Interactive governance; SSF guidelines implementation; rights-based approaches; Bihar CBFM Act 2006; SSF Guidelines as international legal instrument	CORE (3-5 yrs)
Reframing SSF Narratives	✓	✓	✓	✓	✓	Sumaila (2021), Arias Schreiber (2022), Franz (2023), Prado (2024), Nakamura (2025)	Justice vocabulary; 13-concept glossary; IHH quantification; conflict transformation discourse; SSF Guidelines normative reframing	CORE (3-5 yrs)
Local Knowledge Preservation and Integration	✓	✓	✓	✓	✓	Van Putten (2021), Fakoya (2024), Nikku (2024), Jentoft (2025)	Supply chain knowledge; women's LEK for mangrove conservation; community science; digital storytelling; local knowledge in transdisciplinary research	CORE (3-5 yrs)
Livelihood Diversification	✓	✓	✓	✓	✓	Cohen (2021), Selim (2024), Akintola (2024), Ayilu (2025)	SSF transformation through diversity; Bangladesh women homestead gardens; West Africa migration as coping strategy; fish4food diversification	CORE (3-5 yrs)
Financial Tools and Microcredit	✓	✓	✓	✓		Haque and Uddin (2021), Berkes (2022), Gazi (2024)	Bangladesh disaster recovery microcredit; Grameen Bank critique; CBFM formal/informal credit access for SSF	CORE (3-5 yrs)

Legal Reform and Rights-based Approaches		✓	✓	✓	✓	Rouhani (2022), Areola (2023), V. Singh (2024), Nakamura (2025)	SSF guidelines domestication Nigeria; constitutional imperatives South Africa; Bihar CBFM legal rights; SSF Guidelines as binding legal framework	EMERGING (2-4 yrs)
Community Environmental Stewardship		✓	✓	✓	✓	Charles (2022), Fakoya (2024), Nyiawung (2025)	Global stewardship survey 45+ cases; livelihood-conservation linkages; mangrove-shellfish stewardship Nigeria; Gulf of Guinea community governance	EMERGING (2-4 yrs)
Resilience-building Through Diversity		✓	✓	✓	✓	Berkes (2022), Mandal (2023), Patnaik (2024), Berkes and Franz (2025)	Cambodia traditional vs. immigrant gear diversity; frugal indigenous innovation; green energy as resilience driver; new generation fisheries managers	EMERGING (2-4 yrs)
Intergenerational and Indigenous Knowledge Integration	✓		✓	✓	✓	Bavinck (2021), Mandal (2023), Parida (2023), Nikku (2024), Jentoft (2025)	Legal pluralism; frugal innovation from tribal communities; river ranching using native stock; community science with children; knowledge jazz	EMERGING (2-4 yrs)
Blue Justice Advocacy		✓		✓	✓	Blythe (2022), Prado (2024), Akintola (2024), Susilowati (2025)	Just transformations framework; 9 blue injustice typologies; Fisher Forum advocacy Brazil; West Africa regional cooperation; Indonesia blue justice	EMERGING (2-4 yrs)
Digital Technology for Collective Action		✓		✓	✓	Espinosa-Romero (2022), Patnaik (2024), Ayilu (2025)	Pescadata app 12 countries; solar disaster kits for fishers; V2V information system co-design; digital fish4food platforms	EMERGING (2-4 yrs)
Evidence-based Policy (IHH and Research)			✓	✓	✓	Franz (2023), Allison (2022), Nakamura (2025)	IHH 58-country study as policy tool; multi-dimensional SDG data; capacity development Tanzania Malawi Ghana Nigeria; SSF Guidelines evidence base	EMERGING (2-4 yrs)
Nature-based Solutions		✓	✓			Irfanullah (2022), Parida (2023)	Tanguar Haor wetland restoration; IUCN 8-criteria; pen culture in Indian	EMERGING (2-4 yrs)

							wetlands; grass carp weed management	
Locally-led Adaptation (LLA)		✓	✓			Irfanullah (2022), Selim (2024)	8 LLA principles; COP26 $450M commitment; Bangladesh Sundarbans living lab; self-organizing coastal production	EMERGING (2-4 yrs)
Labor Rights Reform and Certification		✓		✓		Marschke and Vandergeest (2022), Akintola (2024)	ILO C-188 ratification; port state measures; responsible fishing vessel standard; mobile technology for fisher safety	EMERGING (2-4 yrs)
Fisher Self-monitoring and Participatory Data				✓	✓	Prado (2024), Nikku (2024), Ayilu (2025)	400+ fishing trips self-monitored; 90% zero bycatch; community science as empowerment; digital story narratives; fish4food data collection	EMERGING (2-4 yrs)
Grassroots Mobilization				✓	✓	Prado (2024), Akintola (2024), Selim (2024), Susilowati (2025)	Brazilian fisher Sustainable Artisanal Fisheries Forum; Ecuador island protection; West Africa co-management scaling; Indonesia community advocacy	EMERGING (2-4 yrs)
Sustainable Stock Management			✓			Arizi (2023), Parida (2023)	Ghana closed seasons and mesh size regulation; data-limited stock assessment (CMSY++, LBB); river ranching India	NEW (1 yr)
Social Capital Building through CBFM				✓		Gazi (2024), V. Singh (2024)	Bangladesh 130 CBOs; CBO legal fishing rights; Bihar exclusive leasing to Mala; fish production 400 to 846 tons 2013-2023	NEW (1 yr)
Green Energy and ICT as Resilience Drivers				✓		Patnaik (2024)	Solar micro-dome disaster kits for Chilika fishers; FM radio for storm warnings; mobile charging at sea	NEW (1 yr)
Loss and Damage Financing as SSF Pathway			✓			Khan (2023)	COP28 $760M Loss and Damage Fund; trigger-based disbursement; CBO direct access; V2V role in capacity building	NEW (1 yr)
Island Circular Metabolism				✓		Simron Singh (2024)	Moving from linear to circular metabolism;	NEW (1 yr)

							polycentric governance for SIDS food security; reducing import dependency	
Blue Tenure and Marine Tenure Rights					✓	Muhl (2025)	Blue Tenure Transitions working group; SSF tenure mapping tools; Western Indian Ocean tenure governance; 30x30 displacement risks	NEW (1 yr)
Transboundary Co-management					✓	Nyiawung (2025)	Gulf of Guinea transboundary SSF governance; migrant fisher inclusion; cross-border community-led management arrangements	NEW (1 yr)
✓ = Code present that year CORE = 3-5 years EMERGING = 2-4 years NEW = 1 year								

5. Methodological Notes

5.1 Coding Approach

This codebook was developed following Braun and Clarke's (2022) reflexive thematic analysis approach within a constructivist paradigm. Codes were generated inductively from webinar transcripts and video recordings through systematic reading and viewing, with each session analyzed against all three research questions simultaneously. Initial codes were refined and consolidated through a process of code comparison across years. The codebook records each code, its definition, the years in which it appeared, the speakers and sessions from which it was drawn, and key evidence supporting its identification.

5.2 Data Source

59 V2V thematic webinar sessions spanning January 2021 to December 2025. For the 2021 to 2024 period, 48 full webinar transcripts were obtained and analyzed. For the 2025 period, 11 video recordings of webinar sessions were analyzed. The series features 59 distinguished speakers from Africa, Asia, Canada, Latin America, the Caribbean, and internationally. Each session was fully analyzed in sequence by year.

5.3 Year Distribution

Year	2021	2022	2023	2024	2025
Sessions Analyzed	12	12	12	12	11
Data Type	TR (Full)	TR (Full)	TR (Full)	TR (Full)	VR (Video)
Session Numbers	1-12	13-24	25-36	37-48	49-59

Note. TR = Full Transcript (2021-2024). VR = Video Recording (2025). Total: 59 sessions across five years.

5.4 Status Definitions

CORE: Code present in 3 to 5 of the 5 years - represents a foundational, persistent theme of the V2V webinar series that has demonstrated sustained relevance across the complete data corpus.

EMERGING: Code present in 2 to 4 years - a developing theme that gained prominence and traction over time but was not present from the beginning or did not sustain across all five years.

NEW: Code introduced in only 1 year - a novel contribution or emergent theme that requires further development and may represent the expanding frontier of V2V discourse.

5.5 A Declining Rate of New Thematic Content

The 2025 webinar series introduced only three genuinely new codes (Marine Bioregionalism, Blue Tenure and Marine Tenure Rights, and ESG and Corporate Sustainability for SSF) while all other sessions reinforced themes established in prior years. This pattern reflects a measurable decline in new thematic content within the 2021 to 2025 period studied, suggesting that the V2V webinar series had developed a relatively stable core conceptual framework for understanding SSF vulnerability and viability during these years. This finding is consistent with Lakatos's (1978) conception of a developing research program and is discussed in full in Chapter Five of the thesis, with the explicit caveat that the V2V series continues beyond this study's scope and its future thematic trajectory remains an open question.