HOCHSCHULE NEUBRANDENBURG
University of Applied Sciences

Collective Self-Organisation in Costa Rica's Cocoa Sector

Challenges and Opportunities for Smallholder Farmers

Master's Thesis

Department of Agricultural Economics and Food Sciences
Chair of Sustainable Agricultural Production Management
Prof. Dr. Theodor Fock
Dr. Olman Quirós Madrigal

By Ella Lucas
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Abstract

This thesis analyses collective self-organisation among smallholder cocoa producers in Costa Rica. The study examines how producer groups respond to limited and fragmented state support. It focuses on three cocoa-producing regions: Caribe Sur (Bribri Territory), Huetar Norte, and Pacífico Sur (Osa Peninsula). The research is based on 17 semi-structured interviews and field observations conducted in 2025.

The findings show that all regions are characterised by smallholder-based agroforestry systems and limited production volumes. However, the degree of organisational consolidation differs significantly. In the Bribri Territory, cocoa production is strongly embedded in cultural practices and agroforestry traditions, but collective organisation remains fragmented and economically weak. In Huetar Norte, emerging regional coordination through Plataforma Norte strengthens cooperation and knowledge exchange. In the Osa Peninsula, cocoa producers are formally integrated into a cooperative structure, which enables centralised processing and more stable market access.

Across all regions, limited scale, low aggregation capacity, and dependence on intermediaries restrict upgrading into higher value chain segments. Successful collective self-organisation depends on internal governance capacity, administrative competence, shared processing infrastructure, and stable market relations. Cultural identity and social cohesion support cooperation but do not automatically translate into economic consolidation.

Collective self-organisation improves market access and resilience only when organisational capacity, governance coherence, and value chain coordination converge.

Abstract (Español)

Esta tesis analiza las formas de autoorganización colectiva entre pequeños productores de cacao en Costa Rica. El estudio examina cómo los grupos de productores responden a un apoyo estatal limitado y fragmentado. Se centra en tres regiones cacaoteras: Caribe Sur (Territorio Bribri), Huetar Norte y Pacífico Sur (Península de Osa). La investigación se basa en 17 entrevistas semiestructuradas y observaciones de campo realizadas en 2025.

Los resultados muestran que en todas las regiones predominan sistemas agroforestales de pequeña escala y volúmenes de producción reducidos. Sin embargo, el grado de consolidación organizativa varía de manera significativa. En el Territorio Bribri, la producción de cacao está fuertemente vinculada a prácticas culturales y tradiciones agroforestales, pero la organización colectiva sigue siendo fragmentada y económicamente débil. En Huetar Norte, la coordinación regional emergente a través de la Plataforma Norte fortalece la cooperación y el intercambio de conocimientos. En la Península de Osa, los productores están formalmente integrados en una estructura cooperativa que permite un procesamiento centralizado y un acceso más estable al mercado.

En las tres regiones, la escala limitada, la baja capacidad de agregación y la dependencia de intermediarios restringen la posibilidad de avanzar hacia segmentos de mayor valor en la cadena. El éxito de la autoorganización colectiva depende de la capacidad interna de gobernanza, la competencia administrativa, la existencia de infraestructura compartida para el procesamiento y relaciones estables con el mercado. La identidad cultural y la cohesión social apoyan la cooperación, pero no se traducen automáticamente en consolidación económica.

El estudio concluye que la autoorganización colectiva puede mejorar el acceso al mercado y la resiliencia, pero solo cuando está respaldada por capacidades organizativas sólidas y estructuras de gobernanza coordinadas.

Abstract (Deutsch)

*Diese Masterarbeit analysiert kollektive Formen der Selbstorganisation unter kleinbäuerlichen Kakaoproduzent*innen in Costa Rica. Untersucht wird, wie Produzierendengruppen auf begrenzte und fragmentierte staatliche Unterstützung reagieren. Der Fokus liegt auf drei kakaoproduzierenden Regionen: Caribe Sur (Bribri-Territorium), Huetar Norte und Pacífico Sur (Osa-Halbinsel). Die empirische Grundlage bilden 17 leitfadengestützte Interviews sowie Feldbeobachtungen, die im Jahr 2025 durchgeführt wurden.*

*Die Ergebnisse zeigen, dass alle Regionen durch kleinbäuerlich geprägte Agroforstsysteme und geringe Produktionsvolumina gekennzeichnet sind. Der Grad organisatorischer Konsolidierung unterscheidet sich jedoch deutlich. Im Bribri-Territorium ist der Kakaoanbau stark in kulturelle Praktiken und agroforstliche Traditionen eingebettet, während kollektive Organisationsstrukturen fragmentiert und wirtschaftlich schwach bleiben. In Huetar Norte stärkt eine entstehende regionale Koordinationsplattform (Plataforma Norte) die Zusammenarbeit und den Wissensaustausch. Auf der Osa-Halbinsel sind Kakaoproduzent*innen formell in eine Genossenschaftsstruktur eingebunden, die eine zentralisierte Verarbeitung sowie stabileren Marktzugang ermöglicht.*

*Regionenübergreifend begrenzen geringe Produktionsmengen, eingeschränkte Aggregationskapazitäten und die Abhängigkeit von Zwischenhändler*innen den Aufstieg in höherwertige Segmente der Wertschöpfungskette. Erfolgreiche kollektive Selbstorganisation hängt maßgeblich von interner Governance-Kompetenz, administrativen Fähigkeiten, gemeinsamer Infrastruktur für Nacherntеprozesse sowie stabilen Marktbeziehungen ab. Kulturelle Identität und soziale Kohäsion fördern Kooperation, führen jedoch nicht automatisch zu wirtschaftlicher Konsolidierung.*

Kollektive Selbstorganisation kann Marktzugang und Resilienz nur dann nachhaltig verbessern, wenn organisatorische Kapazitäten, kohärente Governance-Strukturen und koordinierte Wertschöpfungskettenmechanismen zusammenwirken.

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List of Acronyms

Acronym	Original Name	English Translation
ACOMUITA	Asociación Comisión de Mujeres Indígenas de Talamanca	Association of Indigenous Women of Talamanca
AMECUP	Asociación de Mujeres Emprendedoras	Association of Women Entrepreneurs
APPTA	Asociación de Pequeños Productores de Talamanca	Association of Small Producers of Talamanca
APROSACAO	Sistemas Agroforestales de Cacao Orgánico de Olancho	Organic Cocoa Agroforestry Systems of Olancho
ASOPAC	Asociación de Productores de Cacao	Cocoa Producers Association
BCCR	Banco Central de Costa Rica	Central Bank of Costa Rica
CATIE	Centro Agronómico Tropical de Investigación y Enseñanza	Tropical Agricultural Research and Higher Education Center
DINADECO	Dirección Nacional de Desarrollo de la Comunidad	National Directorate of Community Development
FHIA	Fundación Hondureña de Investigación Agrícola	Honduran Foundation for Agricultural Research
IICA	Instituto Interamericano de Cooperación para la Agricultura	Inter-American Institute for Cooperation on Agriculture
INA	Instituto Nacional de Aprendizaje	National Training Institute
INAMU	Instituto Nacional de las Mujeres	National Institute for Women
INDER	Instituto de Desarrollo Rural	Rural Development Institute
INFOCOOP	Instituto Nacional de Fomento Cooperativo	National Institute for Cooperative Development

ITAMU	Empresa de Cacao en Guatuso, Región Huetar Norte, Costa Rica	Cocoa Enterprise in Guatuso, Huetar Norte Region, Costa Rica
MAG	Ministerio de Agricultura y Ganadería	Ministry of Agriculture and Livestock
OECD	Organisation for Economic Co-operation and Development	
PROCOMER	Promotora del Comercio Exterior de Costa Rica	Costa Rican Foreign Trade Promotion Agency
UCR	Universidad de Costa Rica	University of Costa Rica

Glossary

Term	Definition
Agroforestry systems	Shaded cocoa production systems integrating trees and additional crops
Bandera Azul	Costa Rican national sustainability certification scheme
Bribri	Indigenous community in Talamanca, Costa Rica
Collective self-organisation	Horizontal coordination of producers based on shared rules and joint activities
Cocoa classification	Criollo (fine flavour), Forastero (bulk) and Trinitario (hybrid): historically defined genetic groups of cocoa
Fine-flavour cocoa	Cocoa marketed based on differentiated sensory quality and origin
Maleku	Indigenous community in the Huetar Norte region of Costa Rica
Monilia	Fungal disease affecting cocoa pods (Moniliophthora roreri)
Plataforma Norte	Regional coordination platform for cocoa actors in Huetar Norte
Post-harvest control	Collective management of fermentation and drying processes

1. Introduction

Cocoa (Theobroma cacao) production plays an important economic, social, and cultural role in many rural regions of the Global South. In recent decades, the global cocoa market has expanded, while production conditions for smallholder farmers have become increasingly complex. Price volatility, unequal value distribution, certification requirements, and rising sustainability demands shape everyday decision-making at the farm level (Voora et al., 2020; Fountain & Hütz-Adams, 2020; FAO, 2018). Smallholder farmers remain the backbone of global cocoa production. In this study, smallholder producers are understood as farming households cultivating relatively small land areas and relying primarily on family labour. They often face structural disadvantages in accessing markets, information, and bargaining power (FAO, 2018a; Markelova et al., 2009). Research highlights that collective action, social capital, and local institutions can improve market access and resilience, although outcomes depend strongly on local contexts and internal organisational capacities (Ostrom, 2000; Woolcock, 1998).

Costa Rica represents a particularly interesting case within the global cocoa sector. Although its cocoa volumes are relatively small compared to major producing countries, collective forms of self-organisation among cocoa producers appear unevenly developed and only partially effective in improving market access and long-term economic viability. A key challenge is the limited government support for the cocoa sector, leaving producers largely on their own when it comes to organising production, marketing, and collective initiatives. As a result, the sector appears fragmented. In this study, the term *fragmentation* refers to the predominance of small-scale producers, weak coordination among value chain actors, and limited sector-wide mechanisms for coordination, including institutional support as well as marketing and commercialisation structures. In Costa Rica, producer perspectives and collective organisational strategies remain under-explored (Haynes et al., 2012; Moncada Torres, 2025), which can limit the understanding of how smallholders respond to these challenges

The central objective of this thesis is to analyse collective forms of self-organisation among smallholder cocoa producers in Costa Rica as a response to limited governmental support. In this study, *self-organisation* means producer-initiated and locally coordinated forms of collective action, including cooperatives, associations, and informal networks, that operate without direct hierarchical control by the state. The study examines how these self-organised structures function, their potential to improve market access and resilience, and the challenges they face in practice. Empirical insights are generated through semi-structured interviews with cocoa producers and representatives

of self-organisational structures, complemented by field-based observations in three key cocoa-producing regions of Costa Rica: Caribe Sur, Huetar Norte, and Pacífico Sur.

This research is guided by the overarching question: How do collective forms of self-organisation among smallholder cocoa producers in Costa Rica shape opportunities and constraints for bottom-up rural development within the sustainable fine cocoa sector? To explore this question, the study investigates how collective action functions in practice, the market and value chain dynamics that influence economic sustainability, the role of relationships with external actors such as state institutions, NGOs, and universities, and how social relations, cultural practices, and collective identities shape these processes. Comparative insights from the literature on Honduras are used as a reference point, as the Honduran cocoa sector shows more consolidated and economically effective forms of collective organisation while sharing similar structural conditions (Arias & Fromm, 2019). These comparisons help identify enabling factors and structural differences that may inform Costa Rican practice.

From an agricultural and economic perspective, this study is relevant because Costa Rica remains a comparatively small producer with fragmented production structures and limited presence of large international buyers. This situation also has broader societal implications for rural livelihoods. By analysing why collective and cooperative structures appear more effective in other contexts, the research seeks to identify pathways for strengthening bottom-up initiatives and supporting long-term sustainability in the Costa Rican cocoa sector.

2. Context Analysis

2.1. Global Cocoa Market Context

The global cocoa sector shows a strong geographical divide between production and consumption: smallholders in the Global South produce most cocoa, while processing and consumption take place predominantly in the Global North. Global cocoa markets are marked by high price volatility, concentration of market power, and persistent income insecurity among producers, despite growing demand for certified and fine-flavour cocoa (Voora et al., 2020; Fountain & Hütz-Adams, 2020). Cocoa value chains typically involve smallholder-based production, with harvesting, fermentation, and drying carried out close to the production site. Subsequent processing steps, such as refining into cocoa mass, butter, or finished chocolate, are often separated from production and concentrated in specialised facilities or consumer markets. This structural separation shapes value distribution and market access along the chain (Prazeres et al., 2021)

2.2. Cocoa Sector in Costa Rica

a) Historical Development and Production Characteristics

The cocoa sector in Costa Rica has a long and diverse history, shaped by early economic importance, agricultural crises, and its current marginal but high-value position. Cocoa has been cultivated in Central America for centuries. During the late 19th and early 20th centuries, it became a significant commodity crop in Costa Rica, particularly in Atlantic coastal regions, as colonial trade structures and emerging capitalist export economies reoriented production toward international markets. Records indicate that cocoa served as an important export crop in the 1930s and peaked during the 1960s and 1970s, when high prices and rising global demand supported expansion and integration into smallholder livelihoods (Canacacao, 2015). A major turning point occurred in the late 1970s with the arrival of the fungal pathogen Moniliophthora roreri (“monilia”), which caused severe production declines and led many farmers to abandon cocoa cultivation. This biological shock was aggravated by falling international cocoa prices and limited institutional support, resulting in a long-term contraction of the sector (Canacacao, 2015). By the mid-2010s, most forms of national-level support had been phased out, leaving only fragmented agricultural support services and research-oriented initiatives. Against this background, the National Cocoa Plan (2018–2028) provides a formal policy framework for the cocoa sector. Developed by MAG with support from IICA, it outlines intended actions related to productivity, diversification, and value-chain development in selected cocoa-producing regions (MAG, 2019; OECD, 2024).

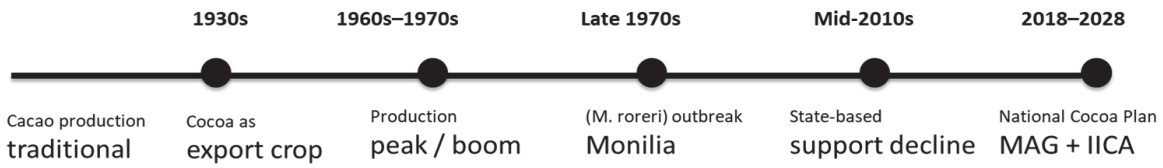

Figure 1
Historical development of the cocoa sector in Costa Rica
Note. Author's own illustration based on Canacacao (2015), MAG (2019), and OECD (2024).

Today, smallholder farmers dominate the Costa Rican cocoa sector, which focuses on fine and flavour cocoa and produces comparatively low volumes compared to major cocoa-producing countries. According to FAO data, cocoa bean production in Costa Rica was about 1000 tonnes in 2024, with a harvested area of approximately 7,783 hectares (FAO, 2026). As shown in Table 1, Costa Rica accounts for only a marginal share of global cocoa production when compared to the world total of 5.23 million tonnes and Western Africa's 2.94 million tonnes in 2024. In Costa Rica, most farms are small and focus on high-quality, often organically produced beans marketed to speciality or sustainability-oriented buyers. Despite this orientation, cocoa remains a marginal economic sector in national terms, with fragmented production and limited access to large certification and commodity markets. The comparatively low export volume of 394.43 tonnes in 2024 further illustrates the limited scale of Costa Rica's participation in international cocoa trade relative to major producing regions (see Table 1). The limited availability of official certification data suggests a gap between sustainability-oriented production practices and formal certification coverage.

In addition to its small harvested area, Costa Rica's marginal role in global cocoa markets is also linked to comparatively low productivity levels. As shown in Table 1, the average yield in Costa Rica was only around 129 kg/ha in 2024, which is substantially below the global average (475 kg/ha) and also far below major producing regions such as Western Africa (453 kg/ha) and the Central American regional average (574 kg/ha) (FAO, 2026). This indicates that Costa Rica's limited production volume is not only a result of restricted scale, but also reflects structural constraints at farm level, including low and heterogeneous output per hectare. These yield differences provide an important quantitative indicator for understanding why Costa Rica remains a niche producer despite growing demand for fine and flavour cocoa. They highlight the relevance of organisational and institutional factors that can influence productivity and post-harvest efficiency.

Table 1
Comparative Overview of Global Cocoa Production and Trade Indicators (2024)

Region	Production (t)	Harvested Area (ha)	Yield (kg/ha)	Export Volume (t)
World	5,233,245.33	11,009,545	475.3	3702681.7
Western Africa	2,943,413.17	6,492,661	453.3	1912900.72
Central America	54,084.14	94,226	574	10465.3
Costa Rica	1,000.00	7,783	128.5	394.43

Note. Author's own compilation based on FAOSTAT (2026).

The economic significance of cocoa in Costa Rica today is mainly limited at the national level, but it retains important local and regional roles. Smallholders depend on cocoa as part of a diversified livelihood strategy that includes other crops, especially in rural and indigenous areas. Institutional and technical support from agricultural research organisations and development networks has been uneven, contributing to fragmented production structures and variable productivity (Dahlquist-Willard et al., 2007).

In contrast to Western Africa, where cocoa production is concentrated at a much larger structural scale (Table 1), Costa Rica's comparatively small harvested area and production volume reinforce its position as a niche-oriented producer rather than a bulk commodity exporter. In Costa Rica, different forms of self-organisation have continuously emerged over time. Despite cocoa's significant historical role, the Costa Rican cocoa sector lacks a systematic and up-to-date empirical overview of these self-organisational structures.

b) Structure of Collective Self-Organisation

Existing literature provides only limited insights into the structure and dynamics of self-organisation within Costa Rica's cocoa sector. Available studies and policy documents indicate that collective action among cocoa producers primarily takes place through cooperatives, producer associations, and locally embedded informal arrangements, often linked to specific territories or development projects rather than to national coordination mechanisms (Haynes et al., 2012; MAG, 2018; OECD, 2024). Existing evidence remains largely region-specific and project-based, and there is no systematic sector-wide comparison of self-organisational structures across cocoa-producing

regions in Costa Rica. Responding to this gap, the present study examines locally embedded organisational arrangements in selected cocoa-producing regions, providing an empirically informed overview of how smallholder producers organise collectively within distinct regional and institutional contexts.

c) Institutional Landscape and Governance Dynamics

Several government bodies, research institutions, and support organisations structure the institutional landscape of Costa Rica's cocoa sector. Unlike other major cocoa-producing countries, Costa Rica lacks a dedicated institutional framework for cocoa development. The sector is managed within general agricultural and rural development policies, which limits long-term support, technical assistance, and coordinated policy action. The Ministry of Agriculture and Livestock (MAG) oversees cocoa as one crop among many, and no specialised institution exists to represent producer interests or coordinate cocoa-specific policies, unlike in the coffee sector. As a result, cocoa producers have limited access to support and no unified channel for policy dialogue (Moncada Torres, 2025).

Overall, governance in the Costa Rican cocoa sector is weakly centralised and dependent on loosely connected institutional networks. In this study, *governance* refers to the institutional arrangements, coordination mechanisms, and power relations that structure interactions among actors within the cocoa sector and along the value chain. While these networks provide functional support in specific areas, they do not constitute a consistent and coordinated governance structure. The OECD (2024) highlights that niche crops such as cocoa remain marginal within national agricultural strategies, as policy instruments focus on general agricultural services and sustainability objectives with limited crop-specific differentiation. This constrains the development of integrated governance mechanisms related to market access, value-chain coordination, and long-term sector planning (OECD, 2024).

Nevertheless, a range of public institutions, research organisations, and support agencies are involved in the sector, with roles distributed across rural development, research and education, vocational training, cooperative support, export promotion, and international cooperation. Key institutional actors include INDER, CATIE, universities such as UCR and EARTH, INA, and IICA. Their engagement is often parallel and project-based rather than coordinated through a unified sector framework, which contributes to fragmented support and reinforces institutional discontinuity. Particularly noteworthy is CATIE's role in developing and disseminating improved cacao clones with enhanced disease resistance—especially following the Monilia outbreak—which have significantly

shaped replanting and productivity strategies in several regions (CATIE, 2013; MAG, 2018). Also important to mention is INFOCOOP, which provides legal and administrative support to cooperative structures and shapes the formal development of producer cooperatives across sectors, including cocoa. The cooperative system in Costa Rica is further supported by additional representative and training bodies within the broader cooperative framework. Comparable institutional arrangements also exist for associations, for example through DINADECO and the National Registry. However, sector-specific support for cocoa-related producer organisations remains weakly institutionalised and often depends on project-based programmes and external initiatives rather than on a coordinated and permanent support structure. In this context, weak *institutionalisation* means support mechanisms that are not embedded in stable, long-term programmes, but rely largely on temporary projects and external funding. PROCOMER plays a complementary role by supporting export promotion and international market access for speciality products, including fine cocoa and artisanal chocolate, yet its mandate is primarily commercial rather than sector-coordinating.

Across this institutional landscape, coordination gaps persist that limit the effectiveness of both collective organisation and external support mechanisms. Cooperative structures often remain weakly integrated into broader governance and market coordination mechanisms, reducing their bargaining power and limiting direct access to higher-value markets. Similarly, NGOs and international partners contribute resources and targeted market linkages, but their involvement is typically time-bound and does not constitute a stable governance mechanism. Overall, the absence of a centralised authority with a comprehensive mandate for cocoa sector development shapes the fragmented configuration of sector governance (OECD, 2024).

Moreover, the governance structure provides limited mechanisms for national-level representation, collective negotiation, or bargaining power. Smallholder producers therefore rely mainly on informal networks, cooperatives, and local associations to pool resources, share knowledge, and explore certification opportunities (Markelova et al., 2009; FAO, 2018).

d) Market Structure and Dynamics

Costa Rica represents a comparatively small cocoa producer, with production largely embedded in smallholder agroforestry systems. International trade statistics indicate that in 2024 Costa Rica exported approximately 394.43 tonnes of cocoa beans, corresponding to an export value of around USD 2 million, which situates the country as a marginal actor within the global cocoa economy (Table 1). A closer look at export

composition reveals that while dried cocoa beans constitute the largest single export category in volume terms, processed cocoa products—including cocoa paste, powder, butter, and husks—collectively account for a substantial share of total exports. In 2024, processed products represented approximately 42 % of total export volume and slightly exceeded raw beans in export value, indicating that some degree of domestic value addition is present within the sector (Table 2). However, existing research on global cocoa value chains cautions that value addition at later stages of processing does not automatically translate into improved income or bargaining power for smallholder producers (Fountain & Hütz-Adams, 2020; Markelova et al., 2009). In many cocoa-producing contexts, smallholders remain confined to primary production, while higher-value segments are captured by downstream actors. Whether and to what extent Costa Rican smallholders benefit from domestic processing activities therefore remains an open empirical question, which this study addresses through its field-based analysis.

From a value chain perspective, the distinction between raw bean exports and processed cocoa products is analytically relevant, as value addition in agricultural commodity chains is often concentrated in downstream segments such as processing and commercialisation. Global value chain research suggests that producers engaged primarily in primary production typically capture a comparatively small share of total value, while upgrading into higher-value functions depends on coordination capacity and governance structures (Gereffi et al., 2005; Ton, 2008). This analytical lens helps situate Costa Rica's export structure within broader debates on upgrading and value capture.

Table 2
Cocoa Bean and Processed Cocoa Product Exports (2024)

Metric	**Beans (dried)**	Butter, fat and oil	Paste (not defatted)	Powder and cake	Husks and shells	**Total processed products (excl. beans)**
Export Volume (t)	**394.43**	2.01	168.83	88.99	21.44	**281.27**
Export Value (1,000 USD)	**2,011**	23	1,487	666	32	**2,208**

Note. Author's own compilation based on FAOSTAT (2026).

Moreover, annual domestic cocoa consumption (2,000–3,000 t) significantly exceeds national production (around 700 t), which indicates that Costa Rica does not produce enough to meet internal demand and relies on imports or processing of foreign cocoa products (IICA, 2025). Trade data also show that the country imports cocoa products such as defatted cocoa paste and cocoa powder in substantial quantities, highlighting the gap between local output and processing needs (World Bank WITS, 2023).

In the Costa Rican context, the combination of small production volumes, agroforestry-based farming systems, and limited farm-level scale has translated into a market structure in which collective organisation plays a central role in enabling smallholder participation. Empirical studies on cocoa production in regions such as Talamanca and the Northern Zone show that smallholders rarely engage directly with buyers or exporters on an individual basis, but instead rely on cooperatives, producer associations, and informal community-based groups to aggregate volumes, coordinate post-harvest processing, and access commercial channels (Haynes et al., 2012).These forms of self-organisation are closely embedded in local social and territorial contexts and often combine economic objectives with broader livelihood, cultural, and environmental considerations. While collective arrangements can improve market access and reduce transaction costs, Costa-Rica-specific research also highlights that they frequently operate at limited scale and capacity, constraining their ability to consistently meet quality, volume, and certification requirements demanded by international markets (Haynes et al., 2012).

Overall, fragmented value chain coordination, uneven processing capacity, and the weak integration of smallholders into higher-value segments define market structures more than production scale itself. Together with the sector’s governance arrangements, these factors explain why the cocoa sector remains fragmented, with restricted market access and uneven interactions among stakeholders, setting the stage for the following empirical and discussion chapters.

2.3. Regional Context

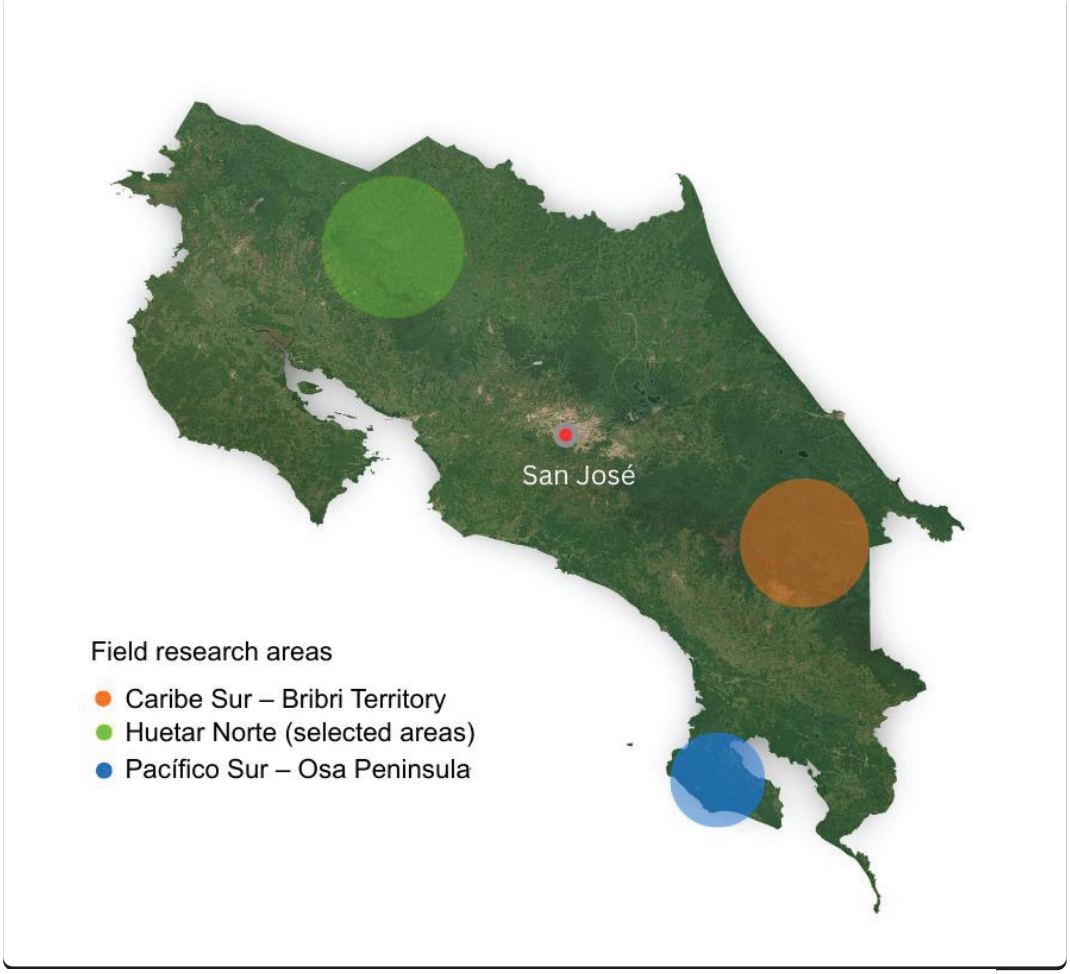

Figure 2
Field Research Areas in Costa Rica

Note. Author's own illustration.

Cocoa production in Costa Rica is spatially concentrated in regions with distinct historical trajectories, climatic conditions, socio-economic contexts, and production systems. This study focuses on three principal cocoa-producing regions: the Caribbean South (Región Caribe Sur), the Northern Zone (Región Huetar Norte), and the Southern Pacific (Región Pacífico Sur). These regions were selected because they represent the core cocoa-producing areas of Costa Rica while capturing contrasting ecological conditions, production systems, and organisational contexts within the national cocoa sector. Within these regions, the empirical analysis concentrates on specific sub-regional contexts - namely the Bribri territory in Talamanca in the Caribe Sur, selected areas in Huetar Norte, and the Pacífico Sur, Osa Peninsula. This reflects the geographical focus of the interviewed actors. and cannot provide a comprehensive representation of each region as a whole.

Due to Costa Rica's pronounced geographical and cultural diversity, these regions are characterised by distinct agricultural and self-organisational practices.

Región Caribe Sur: Bribri Territory (Talamanca)

The Caribbean South of Costa Rica, particularly the Talamanca region along the Caribbean slope, features a humid tropical climate with high annual rainfall, limited seasonality, and consistently warm temperatures. The region is dominated by lowland and tropical rainforest ecosystems with highly biodiverse vegetation and predominantly acidic, moderately fertile soils. Small-scale agroforestry, subsistence agriculture, and protected areas largely determine land use, while farmers traditionally cultivate cocoa under shaded forest canopies rather than in cleared monocultures (Dahlquist-Willard et al., 2007; Canacacao, 2015).

Indigenous Bribri and Cabécar territories strongly influence the cultural landscape of Talamanca, where cocoa holds deep symbolic, ritual, and historical significance. Estimates suggest that approximately 30–40% of cocoa producers nationally belong to indigenous communities, with the highest concentration located in Bribri and Cabécar territories in Talamanca (Dahlquist-Willard et al., 2007; CATIE, 2013). This demographic composition has direct implications for production methods, land tenure arrangements, and culturally adapted support structures. More recent, nationally comparable data on the share of indigenous cocoa producers are not available, which limits the visibility of their role within sector analyses and policy discussions. The strong concentration of cocoa production in indigenous territories such as Bribri therefore represents an important contextual feature of the sector.

Particularly the Bribri territory represents the historical and cultural core of cocoa cultivation in Costa Rica. Cocoa has long been embedded in Bribri cosmology, subsistence practices, and agro-cultural traditions, functioning not only as an economic crop but as a cultural and ritual element (Dahlquist-Willard et al., 2007). Production systems in this region are typically smallholder-based agroforestry systems**,** characterised by low external inputs, high biodiversity, and strong reliance on family labour. Infrastructure remains relatively limited due to geographic remoteness, weak road connectivity, and conservation restrictions, which constrain market access and post-harvest processing. Economically, livelihoods are diversified and often marginal, combining cocoa with subsistence crops, plantain, root crops, and small-scale trade, with limited integration into national agricultural markets (Canacacao, 2015; MAG, 2018).

Self-organisation in Talamanca is closely linked to community structures, indigenous governance systems, and small cooperatives or producer associations. Rather than large formal organisations, collective action often takes the form of local associations, informal groups, and community-based cooperatives, has temporarily enabled parts of the region to engage in training, organic certification, and niche markets. These organisations also play a role in mediating relationships with NGOs, research institutions, and development projects that support sustainable production methods and indigenous livelihoods (Dahlquist-Willard et al., 2007).

Región Huetar Norte

The Northern Zone of Costa Rica, encompassing areas such as San Carlos, Los Chiles, and Upala, is located in the country's humid tropical lowlands and is characterised by high rainfall, fertile alluvial and volcanic soils, and relatively flat topography. These conditions support a wide range of agricultural activities, including livestock production, basic grains, and permanent crops. Vegetation has been substantially transformed by agricultural expansion, resulting in a mosaic of pastureland, cropland, and remnant forest patches (MAG, 2018; OECD, 2024).

Culturally, the region relies less on indigenous governance systems and instead integrates more closely into institutional agricultural development programmes, despite the presence of smaller indigenous communities (Maleku). Although infrastructure in principal urban centres is better developed, many rural areas continue to experience limited road quality, inconsistent access to electricity and public services, and fragmented transport connectivity, which constrain producers' access to markets and institutional support (MAG, 2018). The regional economy is dominated by cattle ranching, pineapple, basic grains, and diversified smallholder agriculture, with cocoa re-emerging as a complementary crop following disease-induced decline rather than as a primary livelihood strategy (CATIE, 2013; MAG, 2018).

Agricultural diversification and post-crisis expansion after the decline of traditional crops have brought cocoa production back to the Región Huetar Norte. Historically, the region was among Costa Rica's major cocoa-producing areas; however, widespread production collapsed following the outbreak of the fungal pathogen Monilia, which severely affected yields and led to the abandonment of cocoa in large parts of the region (Canacacao, 2015; MAG, 2018). Cocoa production in this region is less culturally embedded than in the Región Caribe Sur and is primarily driven by economic diversification strategies among smallholder farmers (CATIE, 2013). Farms are generally small to medium in size,

and production systems combine cocoa with livestock, basic grains, or other permanent crops.

Self-organisation in the Northern Zone is more institutionally mediated**,** often involving small enterprises and producer associations supported by public agencies and research institutions. Cooperative structures in this region tend to be oriented toward market access, collective marketing, and quality improvement, with some success in aggregating volumes for speciality buyers (MAG, 2018).

While production volumes remain modest, the Northern Zone benefits from comparatively better infrastructure and closer proximity to institutional support, facilitating participation in pilot programmes related to improved varieties, disease management, and post-harvest processing (CATIE, 2013).

Región Pacífico Sur – Osa Peninsula

The Pacific South of Costa Rica encompasses ecologically diverse landscapes ranging from coastal lowlands to mountainous forest areas, with the Osa Peninsula representing one of the country's most biodiverse regions. The climate is humid tropical with pronounced rainfall and high ecological sensitivity, and soils are generally suitable for perennial agroforestry systems when managed under low-intensity land-use regimes. Vegetation is dominated by tropical rainforest, and land-use patterns are strongly influenced by conservation policies and proximity to protected areas such as Corcovado National Park (Canacacao, 2015; Cerda Bustillos et al., 2025). Economically, the region is relatively marginal and characterised by limited infrastructure, especially outside main transport corridors. Livelihoods combine smallholder agriculture, tourism-related activities, and conservation-linked employment.

The Pacific South constitutes a heterogeneous cocoa-producing region that includes a range of producer organisations, cooperative initiatives, and smallholder arrangements across areas such as Coto Brus, Golfito, and the Osa Peninsula. Within this broader regional context, the Osa Peninsula represents a smaller but strategically relevant cocoa-producing area. Cocoa cultivation in the region is linked to cooperative initiatives and conservation-oriented development programmes focusing on environmental conservation, sustainable land-use strategies, and cooperative development. Production systems are predominantly agroforestry-based and aligned with conservation objectives, reflecting the region's ecological sensitivity and tourism-oriented economy (Canacacao, 2015). The empirical analysis in this study focuses on the Osa Peninsula, reflecting the

geographical and organisational scope of the interviewed actors rather than providing a comprehensive account of cocoa production across the entire Pacific South.

2.4. Comparative Reference: Honduras

Honduras provides a useful comparative reference for contextualising the Costa Rican cocoa sector - particularly in relation to smallholder-based production, fine and flavour cocoa positioning, and the role of collective organisation under structurally constrained conditions. The comparison is analytically relevant because both countries are located in Central America. Both contexts share broadly comparable agroecological conditions and experienced a historical disruption of cocoa production due to disease. Today, cocoa occupies a similar position in both countries: it functions as a marginal but high-value crop within diversified smallholder livelihoods rather than as a dominant export commodity (Escobedo Aguilar, 2013).

Geographically, Honduras has a humid tropical climate with pronounced rainfall gradients, fertile lowland and foothill soils, and predominantly rainfed agriculture. Cocoa is primarily cultivated in the northern and eastern regions of the country, where agroforestry systems prevail and cocoa is integrated into diversified farming systems alongside food crops and timber species, contributing to income diversification and ecological resilience (Somarriba et al., 2018).

Structurally, the Honduran cocoa sector is dominated by smallholder producers cultivating cocoa on relatively small plots within agroforestry systems. Collective organisation through cooperatives and producer associations plays an important role in coordinating production, post-harvest handling, certification processes, and access to specialised markets (Escobedo Aguilar, 2013). In Honduras, collective structures are embedded in broader sectoral support arrangements and have established linkages to fine and flavour markets. The comparative value of these arrangements for understanding organisational dynamics in Costa Rica is discussed in later chapters. Honduras is therefore not introduced as a normative benchmark, but as a structurally comparable reference case that allows analytical contrast under similar agroecological and smallholder conditions.

3. Literature Review

3.1. Conceptual Focus and Research Gap

This literature review establishes the central theoretical and analytical framework of the thesis. It critically engages with the academic debates relevant for understanding collective self-organisation among smallholder cocoa producers and positions the Costa Rican case within these debates. The review provides the conceptual basis for analysing why self-organisational structures among smallholder cocoa producers in Costa Rica remain weak, informal, and fragmented, and under which conditions their potential to benefit smallholder farmers may be strengthened.

In agricultural contexts, producer organisations are widely discussed as mechanisms through which smallholders can address structural disadvantages in increasingly globalised markets. Drawing on collective action theory and bottom-up rural development perspectives, research emphasises that collective organisation can strengthen market access by enabling joint marketing, improving bargaining power, and fostering locally embedded cooperation that supports shared learning and local development (Markelova et al., 2009). At the same time, empirical studies highlight that such outcomes depend strongly on internal organisational factors such as trust, coordination capacity, leadership, and the ability to manage collective resources over time (Ton, 2008).

Parallel to this, value chain research highlights how power asymmetries, quality standards, and coordination mechanisms shape opportunities for producers. Sectoral studies of cocoa markets show that participation in differentiated and higher-value markets does not automatically translate into improved livelihoods, as economic outcomes are mediated by governance arrangements, compliance requirements, and organisational capacities (Markelova et al., 2009; Ton, 2008). In the cocoa sector, analyses distinguish between bulk and fine-flavour markets and suggest that smallholder-based systems in Latin America are structurally positioned for quality differentiation, yet remain constrained by fragmented organisation, limited scale, and uneven market access.

A third strand of research focuses on governance environments and institutional support structures in rural development. While institutional support is often presented as a prerequisite for effective collective action, critical perspectives show that fragmented responsibilities, short-term project logics, and externally defined agendas may undermine organisational consolidation, continuity, and local ownership (Ton, 2008).

Finally, research on indigenous and smallholder economies emphasises the embeddedness of economic activities within social relations, cultural practices, and ecological systems. Numerous case studies from Talamanca in Costa Rica demonstrate that cocoa production in indigenous territories is often organised around agroforestry systems and local knowledge frameworks that shape both production practices and organisational forms (Dahlquist-Willard et al., 2007). These arrangements frequently rely on informal coordination and social networks rather than formalised cooperatives or associations. While they represent important forms of collective practice, they may also face limitations in terms of scaling up, market integration, and long-term organisational consolidation.

Identified Research Gap

Despite this extensive literature, several analytical gaps remain. First, Costa Rica remains under-theorised in comparative analyses of cocoa production and organisation in Central America. Existing studies on cocoa production in Costa Rica focus primarily on agroforestry practices and cultural dimensions of production, rather than on collective organisational dynamics, governance arrangements, and pathways toward organisational consolidation (Rodríguez Echavarría, 2020). As a result, there is limited sector-wide understanding of self-organised producer structures in Costa Rica and their potential to improve livelihoods beyond the local level.

Second, while studies identify multiple factors influencing collective self-organisation, organisational dynamics, governance arrangements, and market conditions are often analysed separately. This limits empirical insight into how their interplay shapes consolidation or fragmentation in specific contexts (Markelova et al., 2009).

Third, while institutional presence is often assumed to support collective organisation, the Costa Rican case suggests that fragmented and largely project-based public support has shifted much of the responsibility for coordination, market access, and organisational consolidation onto producers themselves. Comparative evidence indicates that organisational performance depends not only on formal institutional strength, but also on the configuration of support structures, market incentives, and internal coordination capacities (Markelova et al., 2009; Ton, 2008).

This study therefore assesses how far, and in what form, self-organised collective arrangements can realistically contribute to improved organisational outcomes in Costa Rica’s cocoa sector.

Central Analytical Problem

Against this background, the central analytical problem guiding this literature review—and the thesis as a whole—can be formulated as follows: Why have forms of collective self-organisation among cocoa producers in Costa Rica remained weak, informal, and fragmented? This is particularly striking given the presence of multiple stakeholders, support initiatives, and policy interventions.

3.2. Theoretical and Conceptual Framework

This section introduces the core theoretical perspectives that inform the analysis of collective self-organisation in smallholder agriculture. These perspectives understand collective self-organisation as a social and political process rooted in power relations, institutional arrangements, and locally embedded capacities. Taken together, they provide an analytical lens for interpreting the empirical findings in the following chapters.

3.2.1. Theories of Collective Self-Organisation

Collective Action Theory

Collective action theory examines how and under what conditions actors engage in coordinated efforts to pursue shared objectives and manage shared challenges. In smallholder agriculture, this approach helps explain why collective self-organisation emerges in some contexts, persists in weak or fragmented forms in others, and produces different organisational outcomes, especially where institutional support is limited.

Elinor Ostrom's work on collective action and the governance of shared resources provides a foundational contribution to this theoretical field. Ostrom demonstrates that collective self-organisation is a recurrent outcome where locally legitimate rules, monitoring mechanisms, and participatory decision-making are in place. Her design principles are frequently used as analytical reference points for assessing the robustness of self-organised institutions in smallholder agricultural contexts (Ostrom, 2000; Markelova et al., 2009).

A first core element concerns the *organisational and governance* conditions enabling cooperation. Research highlights that collective action stabilises when groups develop shared rules, trusted leadership, and internal coordination mechanisms (Ostrom, 2000). In contexts with weak state involvement or limited sectoral institutions, these internal governance capacities become particularly important. Where they remain

underdeveloped, collective self-organisation often persists in informal or short-lived forms.

A second key element relates to the *economic functions* of collective action within market and value chain contexts. Collective organisation can improve market access, coordination, and bargaining positions by pooling production and engaging jointly with buyers. However, empirical evidence shows that these benefits depend on organisational capacity and market conditions rather than on collective organisation alone. Without sufficient coordination and scale, collective action may fail to generate sustained economic returns, even in niche markets (Markelova et al., 2009). Self-organised initiatives that lack mechanisms for quality control, reliable aggregation of produce, or consistent participation often struggle to meet market requirements and maintain buyer relationships, limiting their economic viability.

A third central insight concerns the *social embeddedness* and fragility of cooperation. Trust, social relations, shared identities, and prior experiences of collaboration influence collective action, while internal conflicts and uneven participation can undermine it. Cooperation is sustained not merely by formal incentives but by patterns of relationships and social ties that structure actors' interactions. In settings where relationships with external actors are intermittent or project-based, cooperation is particularly fragile and prone to stagnation or dissolution. Trust, reputation, and repeated positive experiences increase the likelihood that individuals contribute to collective efforts, whereas weak relations tend to undermine cooperation (Ostrom, 2000; Markelova et al., 2009).

Relevance for this study:

Collective action theory provides a lens for analysing why self-organised cocoa initiatives in Costa Rica persist at small scales and struggle to consolidate or scale up. It highlights how internal governance arrangements, coordination capacity, market conditions, and social dynamics jointly shape the limits and potential of bottom-up organisation.

Bottom-Up Development

Bottom-up development approaches emerged as a critique of top-down development models that prioritise externally defined solutions over local knowledge, practices, and agency. Central to this perspective is the assumption that development processes are more effective and sustainable when they are grounded in locally identified priorities and capacities rather than imposed through standardised institutional designs (Chambers, 1994).

A first core element of bottom-up development is its *process-oriented* understanding of development. Instead of focusing primarily on formal structures or predefined outcomes, bottom-up approaches emphasise learning, empowerment, and gradual change. Development is understood as an ongoing process through which local actors build organisational capacity over time via experimentation, adaptation, and collective learning (Chambers, 1994).

A second key element concerns *local ownership* and agency. Bottom-up development highlights the importance of locally embedded decision-making and control over organisational forms. Organisations introduced through external projects—such as cooperatives or associations—risk remaining fragile when they are poorly aligned with producers' existing practices, incentives, and social relations. Formal structures may exist, but lack the internal commitment necessary for long-term consolidation (Chambers, 1994).

Third, perspectives within bottom-up development stress the *gradual emergence* of collective organisation. Uphoff (1993) conceptualises grassroots organisation as a process of local institutional development, in which informal groups may, under certain conditions, evolve into more structured organisational forms. This evolution depends on leadership, learning processes, and adaptive capacity rather than on formal design or legal recognition alone.

Smallholder empowerment may emerge from bottom-up processes and can be considered one of their central intended results. It can be understood primarily as an outcome-oriented concept and normative development objective, frequently used in agricultural development, but less clearly defined as a coherent model. In the literature, it usually refers to strengthening smallholders' agency through improved market participation, collective organisation, access to services, and stronger bargaining power within value chains (Alsop & Heinsohn, 2005). Smallholder empowerment thus functions more as a guiding development objective that can be operationalised through different interventions depending on context.

Relevance for this study:

Bottom-up development theory offers a framework for analysing how collective self-organisation emerges, stabilises, or fails to consolidate in contexts characterised by informal organisational structures. It is particularly relevant for assessing whether existing informal practices and local organisational logics in the Costa Rican cocoa sector provide a foundation for more sustained collective organisation. Smallholder

empowerment complements this perspective by offering an outcome-oriented dimension, allowing the study to assess whether self-organisation strengthens producers' decision-making power, bargaining position, and control over livelihood-related resources (Chambers, 1994; Alsop & Heinsohn, 2005).

Social Capital

Social capital theory focuses on the role of social relationships, trust, and networks in enabling collective action and coordination. A widely used distinction differentiates between bonding and bridging social capital (Woolcock, 1998). These two dimensions capture different but complementary functions of social relations in collective organisation.

Bonding social capital refers to strong, close-knit relationships within relatively small and socially homogeneous groups. It reflects high levels of trust, shared norms, and reciprocal obligations. In smallholder contexts, bonding social capital supports mutual support, labour sharing, informal knowledge exchange, and collective problem-solving, making it particularly effective for sustaining informal groups and day-to-day cooperation at the local level.

Bridging social capital, by contrast, describes connections that link groups to external actors and institutions beyond their immediate social environment. Such ties facilitate access to markets, information, financial resources, and institutional support. Bridging social capital is therefore crucial for organisational scaling, formalisation, and sustained engagement with market and governance structures.

A key insight of social capital theory is the trade-off between these two dimensions. Groups with strong bonding social capital may function effectively internally but struggle to expand, formalise, or engage with external rules and actors when bridging ties remain weak. Close social cohesion may also generate resistance to external coordination requirements, formal governance procedures, or changes in organisational practices.

Relevance for this study:

Social capital theory provides a framework for analysing how collective organisation can be simultaneously enabled and constrained by social relations. It helps explain why informal producer groups may operate effectively at small scales, while facing difficulties in transitioning toward more formal or market-oriented organisational forms when bridging social capital remains limited (Woolcock, 1998).

Self-Organisation versus Hierarchical Governance

The distinction between self-organisation and hierarchical governance is central to research on collective action and governance arrangements. Self-organisation refers to processes in which actors create, adapt, and enforce rules through horizontal coordination, whereas hierarchical governance relies on externally imposed rules, formal authority, and centralised decision-making. In agricultural development contexts, hierarchical governance is typically associated with state-led institutions and donor-driven development projects. This distinction is analytically relevant because the two modes of governance are based on different assumptions about legitimacy and coordination. While hierarchical arrangements emphasise compliance with externally defined rules and objectives, self-organised arrangements rely on locally embedded norms, mutual accountability, and collective decision-making (Albareda & Sison, 2020). In practice, hybrid forms are common, blending hierarchical oversight with locally-driven organisation. For the purposes of this study, however, this distinction provides a useful analytical lens.

In development contexts, this conceptual distinction has been used to critique organisational models that prioritise formal structures over locally embedded practices. Donor-driven and state-led approaches may produce organisations that exist formally but lack internal ownership, accountability, or adaptive capacity—an issue frequently observed in smallholder agriculture, where collective organisation is often promoted through projects rather than emerging organically (Albareda & Sison, 2020).

Relevance for this study:

This conceptual distinction provides a framework for analysing why collective self-organisation in the Costa Rican cocoa sector may remain informal or fragmented despite the presence of multiple external actors. It helps explain why institutional support, when organised through hierarchical or project-based governance arrangements, does not automatically translate into durable or autonomous organisational structures.

Participatory Governance

While the distinction between self-organisation and hierarchical governance provides a useful analytical starting point, it remains too broad to explain how decision-making power is actually exercised and negotiated in practice. Participatory governance theory helps explain these dynamics, which focuses on how actors gain access to decision-making processes and how participation shapes the balance between autonomy and external control.

A central insight concerns the role of power and access to decision-making spaces. Gaventa (2006) distinguishes between *invited spaces* of participation, which are created and controlled by states or external actors, and *claimed or autonomous spaces*, which are created by collective actors themselves. Invited spaces are controlled by external actors, with agendas and rules largely set from above, meaning self-organised groups must adapt to existing procedures and priorities to participate. In contrast, claimed spaces are actively created by local actors, giving them greater control over agendas, rules, and coordination, and are therefore more likely to support meaningful self-organisation. For meaningful self-organisation, governance arrangements are most supportive when producer groups can create and maintain claimed spaces that give them real agenda-setting power rather than only limited participation within externally controlled frameworks.

Relevance for this study:

Participatory governance provides a framework to examine how relationships between self-organisations and external actors shape the effectiveness, durability, and autonomy of self-organised initiatives. It helps explain under which conditions cocoa producer groups can create decision-making spaces to maintain autonomy, coordinate collectively, and strengthen their organisational resilience.

Taken together, these theoretical perspectives suggest that the success or failure of collective self-organisation does not hinge on formal organisational status, but on a set of recurring functional characteristics. Across the literature, effective self-organisation is associated with locally defined and legitimate rules, participatory decision-making, internal coordination and monitoring capacities, and the ability to engage selectively with external actors without undermining organisational autonomy (Ostrom, 2000; Markelova et al., 2009; Uphoff, 1993; Woolcock, 1998). Conversely, organisational fragility is frequently linked to externally imposed designs, weak internal governance, over-reliance on project-based support, and imbalances between internal cohesion and external connectivity.

3.2.2. Organisational Forms in Smallholder Agriculture

Building on these insights, the literature distinguishes between different organisational forms through which collective action is pursued in smallholder agriculture, ranging from formal, legally recognised entities to informal and loosely structured groups. This section

focuses on cooperatives, associations, and informal stakeholder groups, as these represent the organisational forms most relevant to the empirical context.

Cooperatives represent the most formalised form of collective organisation. They are typically legally registered and structured around principles of democratic member control. For producers, cooperatives can facilitate coordinated marketing, access to inputs and services, and improved bargaining power. They may also enhance traceability and quality control by aggregating production and enforcing standards (Markelova et al., 2009). At the same time, cooperatives face well-documented challenges. High administrative requirements, limited managerial capacity, and internal governance problems can undermine their effectiveness. In many smallholder contexts, cooperatives struggle with member commitment, elite capture, and dependence on external funding or projects, which can weaken autonomy and long-term sustainability (Ton, 2008).

Associations occupy an intermediate position between formal cooperatives and informal groups. They are often legally recognised but less commercially oriented, focusing instead on representation, advocacy, community strengthening, or access to development support. Associations can provide platforms for collective learning and coordination without the financial obligations associated with cooperatives, and they may facilitate engagement with public institutions or development programmes. However, they typically have limited capacity to coordinate sales or negotiate prices due to their weaker commercial orientation (Markelova et al., 2009). Common challenges include unclear roles, limited financial resources, and reliance on project-based funding. Without clear economic functions or sustained member engagement, associations may remain fragile and struggle to consolidate over time (Ton, 2008).

Informal stakeholder groups constitute the least formalised form of collective organisation. These groups are often based on social ties, shared practices, or local norms rather than legal status or formal governance structures. They can facilitate mutual support, labour exchange, and knowledge sharing with minimal administrative load and may reinforce social cohesion and collective identity. However, their informality limits access to formal markets, finance, and institutional support, constraining their ability to scale up or engage in higher-value market segments (Markelova et al., 2009). The literature highlights that informal groups frequently face challenges related to visibility, continuity, and recognition by external actors. While they may function effectively at small scales, their reliance on personal relationships can make them vulnerable to internal conflicts or external shocks (Ton, 2008).

Across all three organisational forms, common problems in organisational formation and consolidation include limited managerial capacity, unequal participation, dependence on external support, and difficulties balancing economic objectives with social cohesion. Importantly, the literature suggests that organisational form alone does not determine success, but that outcomes depend on how internal dynamics, governance environments, and market conditions interact in specific contexts (Markelova et al., 2009).

3.2.3. Self-organisation within Cocoa Value Chains

Within cocoa value chains, cooperatives and associations act as intermediaries that link smallholders to markets. These organisations can coordinate joint input sourcing, shared post-harvest processing, and collective marketing, which can reduce transaction costs and improve producers' negotiating positions in both national and export markets (Markelova et al., 2009; Prazeres et al., 2021). Aggregation also facilitates compliance with voluntary sustainability standards or certifications that are increasingly required for entry into quality-differentiated market segments. Successful engagement with such standards can provide price premiums, but this often depends on cooperatives' organisational capacity and external support.

At the same time, research points out that collective organisations in value chains serve dual functions: economic coordination and socio-political representation. Beyond direct market activities, cooperatives may perform training, knowledge exchange, and representation in multi-actor platforms that influence local governance or access to public programmes. These social and institutional roles can strengthen cohesion and resilience, but they may also create tensions when economic performance and broader social objectives compete for limited organisational resources (Ton, 2008).

Finally, studies of cocoa markets highlight the power asymmetries inherent in global cocoa value chains, where a few dominant firms control high-value functions such as processing, branding, and international distribution, while millions of smallholders produce the bulk of raw beans. This structural feature shapes how producer organisations emerge and operate, especially when scaling into international markets where entry barriers and compliance pressures are strong (Prazeres et al., 2021).

While collective self-organisation can enhance coordination and facilitate market participation, critical value chain research emphasises that it operates within existing power asymmetries. In contexts characterised by strong buyer concentration and limited state support, producer organisations may assume responsibilities for certification, quality management, and market compliance without gaining corresponding influence

over pricing or value distribution. Particularly in fine-flavour and sustainability-oriented markets, organisational capacity becomes a prerequisite for participation rather than a guarantee of improved economic outcomes (Ton, 2008; Prazeres et al., 2021).

Relevance for this study:

Understanding self-organisation within cocoa value chains is crucial for analysing both the potential and the limits of collective initiatives in the Costa Rican cocoa sector. It provides a framework for examining whether self-organisation improves producers' market position or primarily involves additional organisational responsibilities and risks.

3.3. Sectoral Context and Production Characteristics

This section builds on the global and regional positioning of cocoa presented in the context analysis and shifts the analytical focus to production systems and organisational implications. Drawing on the literature, it conceptualises cocoa production models, varietal strategies, and market orientations as comparative typologies. These analytical distinctions provide a framework for situating Costa Rica within broader sectoral patterns and for understanding how production characteristics shape the conditions for collective self-organisation.

Production systems in the cocoa sector

Historical, ecological, and institutional factors have influenced the development of cocoa production systems in different ways across regions. A central distinction in the literature differentiates between plantation-based systems and smallholder-based systems. The concept of smallholder agriculture is not uniformly defined in the literature. While thresholds often range below two to five hectares depending on regional contexts, smallholder systems are generally characterised by reliance on household labour, limited capital inputs, and strong embeddedness in local ecological and social contexts (FAO, 2019). Beyond farm size, smallholder production refers to a structural position within value chains marked by limited bargaining power and constrained access to markets and institutional support. In contrast, plantation models are typically capital-intensive, wage-labour based, and embedded in vertically coordinated production structures (Fountain & Hütz-Adams, 2020; Voora et al., 2020).

In addition to production scale and farming systems, cocoa production is often differentiated through the historically established varietal classification of Criollo, Forastero, and Trinitario. *Criollo* is commonly associated with fine-flavour profiles but is relatively rare in global production. *Forastero* varieties dominate bulk cocoa supply,

particularly in West Africa. *Trinitario*, a hybrid group originating from crossings between Criollo and Forastero, is widely regarded as combining higher productivity and disease resistance with improved flavour potential compared to Forastero (Motamayor et al., 2008). This classification remains widely used in both scientific and market discourse, even though genetic research has shown that actual cocoa diversity is more complex than these three broad categories (Motamayor et al., 2008). In this global context, Costa Rica is typically positioned closer to Criollo- and Trinitario-oriented production, which aligns with its broader role in fine-flavour cocoa markets rather than bulk commodity chains. This is also reflected in local producer narratives, where “Criollo” is frequently used as a key marker of heritage and quality, even if the term does not always correspond to the strict genetic definition used in scientific literature.

Within smallholder systems, agroforestry represents a dominant production model, particularly in Latin America. Cocoa is integrated with shade trees, fruit crops, and timber species, contributing to biodiversity conservation and ecological resilience, though often associated with lower short-term yields compared to intensive monocultures (Dahlquist-Willard et al., 2007). Agroforestry systems thus embed environmental functions directly within production structures and shape both productivity levels and organisational needs.

Indigenous production contexts constitute a distinct variant of smallholder agroforestry. Here, cocoa cultivation is embedded in long-term land-use strategies and cultural practices that prioritise ecological balance, food security, and social reproduction over yield maximisation (Rodríguez Echavarría, 2020). Production systems are closely intertwined with collective practices and local knowledge frameworks rather than individualised commercial strategies, influencing how market participation and collective organisation unfold in practice.

Varietal strategies further differentiate production systems. In Central America, institutions such as CATIE have promoted improved cocoa clones to enhance disease resistance and productivity. At the same time, debates persist regarding implications for genetic diversity, flavour differentiation, and farmers’ autonomy. Fine-flavour characteristics are not determined by variety alone, but emerge through interactions between genetics, agroecological conditions, and post-harvest practices (Motamayor et al., 2008; Rodríguez Echavarría, 2020). Varietal choices therefore reflect not only technical production strategies, but also broader positioning within value chains, influencing productivity levels, quality differentiation, and degrees of institutional dependence. This distinction is relevant for the present study, as varietal preferences

and debates over clones versus traditional varieties emerge as an important theme in the empirical fieldwork.

To systematise these differences, the literature commonly distinguishes between several cocoa production typologies. A first distinction differentiates bulk cocoa from fine- or flavour-oriented cocoa, the latter associated with higher quality standards, smaller production volumes, and niche market positioning. A second distinction contrasts export-led commodity systems, characterised by volume orientation and standardised quality, with niche-oriented systems targeting specialty, origin-based, or sustainability-driven markets. A third distinction differentiates plantation-based from smallholder-based systems, with implications for labour organisation, governance structures, and collective coordination (Voora et al., 2020; Fountain & Hütz-Adams, 2020).

Within these typologies, Costa Rica can be positioned as a smallholder-based, fine-flavour cocoa system embedded in agroforestry and, in some regions, indigenous production contexts. This positioning aligns structurally with niche-oriented and quality-differentiated markets rather than bulk commodity chains. At the same time, it implies persistent challenges related to scale, coordination, and market access. These structural characteristics directly shape the conditions under which collective self-organisation emerges, consolidates, or remains fragmented.

Agroforestry Systems in Cocoa Production

Since cocoa production in Costa Rica is predominantly organised within agroforestry systems, a brief theoretical classification is necessary to contextualise the production environment analysed in this study. One of the most widely used and internationally recognised classifications was developed by P. K. Ramachandran Nair. This framework distinguishes agroforestry systems based on the integration of trees with crops and/or livestock (Nair, 1993).

Within this classification, *agrisilvicultural systems* combine trees with agricultural crops. Trees are intentionally integrated to provide ecological, productive, and social functions. Typical examples include cocoa or coffee grown under shade trees, and annual crops cultivated alongside fruit trees (Nair, 1993). Other forms of agroforestry also exist, such as silvopastoral systems, which integrate trees and livestock, and agrosilvopastoral systems, which combine trees, crops, and animals. However, these forms are less relevant for cocoa production.

Cocoa production systems in Costa Rica predominantly fall within the category of agrisilvicultural agroforestry systems. Cocoa trees are commonly cultivated under a

diverse canopy of shade and utility species, including timber trees, fruit trees such as Musa spp. (plantain and banana) and Citrus spp., as well as shade species such as Inga spp. and Erythrina spp. Native forest species are often intentionally retained within cocoa plots (Dahlquist-Willard et al., 2007; Somarriba et al., 2013).

Within this broad category, the literature suggests variation according to management intensity, shade structure, and species diversity. These include traditional shaded, structurally complex, and low-input cocoa agroforestry forms (Dahlquist-Willard et al., 2007; Jagoret et al., 2011; Cerda et al., 2025). While further classifications exist, this differentiation provides a sufficient basis for contextualising the Costa Rican case in this study.

In Costa Rica, cocoa cultivation is predominantly smallholder-based and embedded in shaded agroforestry systems characterised by diversified canopy structures and generally low external input use (Dahlquist-Willard et al., 2007; Somarriba et al., 2013). Although the literature does not formally distinguish discrete national subtypes, regional expressions may resemble traditional, highly diversified, or low-input variants.

Best-Practice Example – Honduras' Production Structure

Empirical research in the Honduran cocoa value chain shows that producers not only engage in traditional smallholder production but also develop collective social and entrepreneurial capacities that extend into processing and chocolate production activities. Arias and Fromm (2019) document cases of organised smallholder groups in northern Honduras that have moved beyond raw bean sales into semi-processed cocoa and artisanal chocolate production, thereby capturing additional value within the chain. In particular, cooperatively organised producers in regions such as Olancho and Copán have strengthened joint marketing structures and developed direct trade relationships with specialised buyers, illustrating how collective upgrading can emerge from locally embedded social capital. This evidence illustrates that, within a comparable production system, organisational and institutional structures can be developed that enhance smallholder farmers' collective capacities and create favourable conditions for self-organisation and market integration.

Institutional efforts to characterise and disseminate technical knowledge constitute a broader potential systemic strength in the Honduran cocoa sector. The Catalogue of Cocoa Clones in Honduras, developed through multi-stakeholder collaboration including the National Cocoa Chain Committee and international partners, represents one example of a sector-wide reference tool designed to inform extension services, nursery

development, and planting decisions. Importantly, this catalogue is embedded within a wider set of coordinated extension and knowledge-sharing practices, including standardised agroforestry recommendations, quality management guidelines, and training materials that circulate across multiple programmes and organisations. While the uptake of such tools varies across smallholder contexts, their collective existence reduces information asymmetries at the sector level and creates institutional preconditions for more coordinated production strategies and quality differentiation. The literature on inclusive value-chain development highlights that coordinated multi-stakeholder processes and linked research-extension-smallholder networks can function as mechanisms for collective learning, knowledge exchange, and inclusive innovation in agri-value chains (Devaux et al., 2018; Markelova et al. (2009).

Another notable strength in the Honduran context is the ongoing development of agroforestry-based production systems supported by sustained research and technical guidance. A frequently cited example is the long-term agroforestry research conducted by the Honduras Foundation for Agricultural Research (FHIA) in northern Honduras, which has systematically examined timber-based cocoa agroforestry systems over multiple decades. This sustained experimental work has generated empirically grounded knowledge on agroforestry design and management that supports cocoa productivity, ecological resilience, and income diversification under variable climatic conditions. Such a consolidated agroecological knowledge base provides an important structural foundation for smallholder producers by reducing technical uncertainty and strengthening the conditions for coordinated production strategies (Ramírez-Argueta et al., 2022).

While Honduras and Costa Rica share similar agroecological and production system characteristics, the Honduran context exhibits additional structural capacities. These include stronger established collective self-organisation, long-term agroforestry experimentation and inclusive models of knowledge transfer. Taken together, this illustrates how, within a comparable production system, organisational and institutional structures can be developed that enhance smallholder farmers' collective capacities and create favourable conditions for self-organisation.

3.4. Economic Dimensions of Collective Self-Organisation

Market Access and Value Chain Integration

Market access in cocoa value chains is not determined solely by price signals, but by producers' capacity to comply with a set of technical, organisational, and administrative

requirements. These include post-harvest processing, quality control, certification, volume aggregation, and contractual reliability. The literature emphasises that collective self-organisation can mediate these requirements, but that its effectiveness varies systematically across regional circumstances (Markelova et al., 2009; Ton, 2008; Voora et al., 2020).

Economic analyses of cocoa market fundamentals show that price transmission along the value chain is often incomplete, meaning that changes in international cocoa prices are only partially reflected at farm-gate level. This structural asymmetry limits the income effects of market participation for smallholders and increases the importance of organisational capacity for improving economic outcomes (Rogna, 2021; FAO, 2018). From this perspective, collective self-organisation plays a potentially mediating role between producers and markets, though its effectiveness depends on organisational form and degree of integration.

Post-harvest infrastructure constitutes a central mechanism through which collective organisation can influence market access. Cocoa quality—and thus access to both bulk and fine-flavour markets—depends heavily on fermentation and drying practices. Cooperatives are most commonly associated with deeper value chain integration, as they can coordinate shared fermentation and drying facilities, pooling stations, and collective labour arrangements. By formalising post-harvest processes at the collective level, cooperatives can standardise quality, aggregate volumes, and reduce variability—conditions that are critical for accessing higher-value market segments and for strengthening bargaining positions within value chains (Voora et al., 2020; Rogna, 2021). Associations may support training and basic coordination around post-harvest practices, but their capacity to invest in shared infrastructure is typically more limited. Informal groups often rely on reciprocal labour exchange and knowledge sharing, which can improve practices locally but rarely results in consistent, verifiable quality suitable for export markets (Ton, 2008).

Quality control is closely linked to organisational scale and governance capacity. Collective arrangements enable peer monitoring, shared learning, and the enforcement of minimum quality norms. FAO analyses emphasise that quality failures at post-harvest stages translate directly into price penalties at farm-gate level, reinforcing income instability for producers who lack organisational mechanisms for collective quality management (FAO, 2018).

While cooperatives may implement internal grading systems and collective oversight, associations typically play an advisory role, and informal groups rely primarily on trust-

based norms that are difficult to translate into externally recognised standards (Markelova et al., 2009).

Certification represents a major economic and institutional barrier to value chain integration in the cocoa sector. International certification schemes involve high fixed costs, administrative complexity, and continuous compliance requirements that are difficult for individual smallholders to meet. For many small and informally organised producer groups, income-relevant certifications remain financially out of reach, as upfront audit fees, documentation requirements, and ongoing compliance costs exceed their economic capacities. Empirical evidence from cocoa-specific certification studies shows that certification rarely leads to sustained income improvements when producers participate individually, as certification generates additional costs without guaranteeing access to certified markets or sustained price premiums for small-scale producers (ICCO, 2012).
As a result, certification becomes economically viable primarily when costs, monitoring, and market relationships are organised collectively. Cooperatives are therefore best positioned to sustain certification over time, while associations often remain dependent on external actors for certification management. For informal groups, certification is largely inaccessible, reinforcing their exclusion from differentiated and export-oriented markets (Voora et al., 2020).

Export readiness depends not only on quality, but also on volume aggregation, contractual reliability, traceability, and administrative capacity. International buyers typically require minimum volumes and consistent supply, which disadvantages small and informally organised producers. As a result, national and local markets are often more accessible to associations and informal groups, while participation in international value chains remains largely conditional on higher levels of collective organisation and institutional capacity (Rogna, 2021; FAO, 2018; Markelova et al., 2009; Voora et al., 2020).

Overall, the literature highlights persistent structural entry barriers that shape the economic potential of collective self-organisation across different organisational forms. These structural constraints are reflected in the Costa Rican case presented in the context analysis (Chapter 2), where comparatively low production volumes, limited export quantities (Table 1), and a modest degree of value-added processing relative to global production patterns (Table 2) illustrate the practical relevance of these barriers for smallholder-based fine-flavour systems.

Economic Advantages and Limitations

Collective self-organisation is frequently promoted as a strategy to improve economic outcomes for smallholders. However, empirical research suggests that benefits are uneven and depend on organisational form, market orientation, and governance capacity.

Cooperatives offer the greatest potential for price stabilisation and bargaining power because they pool volumes, centralise sales, and can enter contractual relationships with buyers. At the same time, their market integration creates financial sustainability challenges, as administrative and coordination costs, professional management needs, and exposure to price volatility increase economic risk. Weak internal governance or dependence on a small number of buyers can therefore undermine their long-term viability (Markelova et al., 2009; Ton, 2008).

Associations may reduce transaction costs and strengthen local negotiation capacity, but typically lack the resources and institutional mechanisms required for sustained market integration and price stabilisation. Their economic role is therefore often complementary rather than transformative (Markelova et al., 2009).

Informal groups provide economic benefits mainly through cost-sharing, labour exchange, and short-term risk pooling, but rarely translate into stronger market positions or sustained income improvements due to limited leverage and formal coordination mechanisms (Ton, 2008).

Overall, the literature cautions against assuming a linear relationship between collective organisation and economic success. While self-organisation can improve market participation, it also introduces risks related to financial management, coordination costs, and exposure to volatile markets, highlighting a trade-off between economic opportunity and organisational vulnerability (Markelova et al., 2009; Voora et al., 2020).

Best-Practice Example: APROSACAO in Honduras

Empirical evidence from the Honduran cocoa sector provides a concrete illustration of how collective self-organisation can translate into improved market access and more stable economic conditions for smallholder producers. A frequently cited example is the Asociación de Productores de Sistemas Agroforestales de Cacao Orgánico de Olancho (APROSACAO), a producer organisation that emerged from bottom-up initiatives among small-scale cocoa farmers and gradually developed into a cooperative structure with integrated production, processing, and market coordination functions.

APROSACAO's organisational strength lies primarily in its ability to coordinate multiple economic functions at the collective level. These include the standardisation of post-harvest practices, collective quality management, and the aggregation of volumes required for participation in differentiated and export-oriented cocoa markets. Empirical studies of agroforestry-based cocoa projects in Honduras document how such cooperative arrangements enable producers to comply with technical and organisational requirements that would be unattainable at the individual farm level, particularly in relation to organic certification, traceability, and contractual reliability (Sobalbarro-Figueroa et al., 2020).

A central economic advantage of this cooperative model is its role in mediating relationships between smallholders and international buyers. Through long-term commercial partnerships—most notably with specialised European chocolate manufacturers - APROSACAO has enabled its members to access premium markets for organic and fine flavour cocoa. These arrangements have been associated with more predictable sales channels, reduced dependence on local intermediaries, and the retention of price premiums at the producer level. While price outcomes remain influenced by global cocoa market dynamics, the cooperative structure has contributed to improved income stability by embedding producers within more structured and relational value chains rather than short-term market transactions (Cortéz Arias & Fromm, 2019; Sobalbarro-Figueroa et al., 2020).

Beyond price effects, the cooperative's organisational configuration has strengthened producers' economic agency within the value chain. Collective governance mechanisms facilitate peer monitoring, shared learning, and the enforcement of quality standards, thereby reducing internal collective action problems and enhancing the credibility of the organisation towards buyers and certification bodies. This aligns with broader findings in the literature that identify cooperatives as particularly effective organisational forms for overcoming scale constraints, managing certification costs, and sustaining long-term market relationships in smallholder-dominated cocoa sectors (Markelova et al., 2009; Voora et al., 2020).

Importantly, the Honduran case also illustrates that such economic outcomes are not the result of market integration alone, but of sustained organisational development supported by external technical assistance and institutional embedding. Studies emphasise that APROSACAO's market engagement has been closely linked to long-term investments in organisational capacity building, and professionalisation of administrative functions as well as compliance with certification requirements

(Sobalbarro-Figueroa et al., 2020). Additional support from NGOs and technical assistance programmes has likely contributed to these outcomes.

At the same time, the literature cautions against interpreting this case as a universally replicable model. The economic viability of cooperatives such as APROSACAO remains predicated on continued access to stable buyers, effective internal governance, and the ability to manage increasing administrative and financial complexity. Nevertheless, as a best practice example, the Honduran case demonstrates how collective self-organisation can function as an economically embedded strategy that links production systems, organisational capacity, and market integration in ways that generate tangible benefits for smallholder producers.

3.5. External Actors and Governance Environments

External actors and governance environments shape the conditions under which collective self-organisation emerges, stabilises, or remains fragile. Institutional support and external networks can provide resources, legitimacy, and access to knowledge and markets, but they may also constrain autonomous bottom-up dynamics when support remains fragmented, project-based, or weakly coordinated (Ton, 2008).

Institutional support plays an ambivalent role in collective self-organisation. Public institutions, universities, and research centres can provide knowledge, legitimacy, and resources that individual producers cannot access alone. However, without strong institutional anchoring, support is often discontinuous and externally driven, limiting long-term organisational consolidation (Ton, 2008).

External networks are key for organisational strengthening, connecting producer organisations to markets, visibility, and knowledge beyond the local level. The literature distinguishes between different spatial scales of networking, ranging from local coordination networks to regional and national networks required for scaling and market integration (Gaventa, 2006; Ostrom, 2000). At the same time, institutions often shape access to these networks, meaning that producer groups may gain short-term resources while remaining constrained in autonomous self-organisation (Ton, 2008).

Programs and Policy Frameworks

Sectoral programs and policy frameworks influence collective organisation primarily through their design and temporal logic. Regional initiatives and national agricultural plans often aim to strengthen productivity, quality, or sustainability, but rarely prioritise organisational consolidation as a long-term objective. Multi-stakeholder platforms can

create important spaces for coordination, learning, and dialogue between producers and external actors. Their contribution to sustainable self-organisation is greatest when producer organisations participate as strategic partners with agenda-setting capacity, rather than primarily as project beneficiaries. By contrast, programs that prioritise technical outputs over organisational processes tend to produce only short-lived coordination effects (Gaventa, 2006; Ostrom, 2000).

Governance Risks

The literature identifies several governance risks that systematically constrain collective self-organisation and emerge from institutional arrangements themselves.

First, *project-based support* represents a central risk. Time-bound projects often incentivise organisations to align with reporting requirements and donor priorities rather than invest in long-term institutional development. Once projects end, activities frequently decline, leaving organisational structures weak and dependent (Ton, 2008).

Second, *fragmentation* of responsibilities across ministries, development agencies, NGOs, and private actors weakens collective action. Fragmented governance environments generate unclear points of contact, overlapping interventions, and contradictory signals for producer organisations, increasing coordination costs and diluting accountability (Ostrom, 2000).

Third, *limited coordination* between institutions and producer organisations constrains ownership and relevance. When programs are designed without meaningful producer involvement, organisations remain implementation objects rather than strategic partners. This reduces alignment with local priorities and reinforces dependency on external impulses, limiting autonomous self-organisation (Markelova et al., 2009).

Taken together, these governance risks underscore the importance of positioning smallholder producers as active participants rather than passive recipients within institutional arrangements, as meaningful participation is a key condition for strengthening organisational capacity and influence within value chains.

Best-practice example: Sector-Level Governance Coordination in Honduras

The Honduran cocoa sector provides an instructive example of how sector-level governance arrangements can contribute to more stable conditions for collective self-organisation among smallholder producers. A central feature of this governance environment is the National Cocoa Chain Committee (Comité Nacional de la Cadena de

Cacao), a cocoa-specific multi-stakeholder coordination mechanism functioning as an inter-institutional advisory and coordination body embedded within the agricultural governance system. The Committee brings together producer organisations, government institutions, research centres, NGOs, and private sector actors within a shared sectoral framework. It is supported by initiatives such as PROCACAHO, a long-running program focused on capacity building and value chain development. The platform also involves private partners like Chocolats Halba, a major and stable buyer that provides technical support and ensures reliable market access which has been crucial for the success and sustainability of smallholder cocoa cooperatives.

The effectiveness of this platform lies in the combination of formalised multi-actor coordination and concrete value chain outcomes. In Honduras, these arrangements have enabled:

- Alignment of public extension services with cocoa-specific needs, ensuring technical assistance is coordinated across regions rather than fragmented, which improves productivity and production quality.
- Collaborative development of competitiveness strategies and innovation systems. These include standards for environmental conservation, certification, and quality control, all facilitated by horizontal coordination through the Committee.
- Engagement with private sector partners, such as Chocolats Halba, which anchor market access and long-term investments in quality improvements, provide support for sustainable agroforestry practices, and improve producer incomes.
- Integration into regional and international markets, supported through joint certification processes and shared quality standards, strengthening cooperatives' bargaining positions and economic sustainability.

Importantly, governance programs like PROCACAHO and the Committee are complementary but distinct: the program operationalises capacity building and value chain improvements, while the Committee represents the institutionalised coordination mechanism embedded in the national policy space. Sector studies emphasise that such horizontal coordination reduces duplication of efforts, clarifies roles and responsibilities, and increases information flows between producers and policy actors, enabling more coherent responses to challenges such as climate change, market volatility, and sector-wide planning (Cortéz Arias & Fromm, 2019; CBI, 2018).

While there is no peer-reviewed literature detailing the specific process through which these governance structures and platforms emerged, the Honduran cocoa case provides a best-practice example of what can be achieved through multi-actor coordination. It serves as a useful reference point for Costa Rica and other cocoa-producing contexts where similar governance arrangements could be developed to support producer self-organisation.

3.6. Cultural Significance and Indigenous Dimensions

Cocoa has deep cultural roots across the Americas, predating its incorporation into global commodity markets. Historical and ethnographic research highlights that cocoa has long held symbolic, ceremonial, and socio-economic significance in indigenous and rural communities, shaping how production is interpreted beyond purely economic motivations. In many contexts, cocoa cultivation is closely linked to territorial identity, collective memory, and traditional ecological knowledge, and can therefore function as a basis for community cohesion and locally embedded resource management (Lucco García et al., 2025).

In the Talamanca region of Costa Rica, indigenous Bribri and Cabécar communities exemplify how cocoa production persists as an agroecological and cultural practice embedded in broader indigenous life and knowledge systems. In Bribri cosmology, cocoa is understood as a sacred plant associated with origin stories and ritual practices. Cocoa trees are traditionally managed according to norms that emphasise stewardship, ecological balance, and responsibility across generations. These cultural practices can foster community-based organisation grounded in shared values and collective responsibility rather than purely market-driven logic. Artisan groups and women's associations that produce and market traditional cocoa products further illustrate how cultural heritage and economic activity are linked within locally embedded forms of self-organisation (Dahlquist-Willard et al., 2007).

From a theoretical perspective, these cultural and indigenous dimensions underscore that self-organisation in rural agriculture is not purely an economic strategy but is also shaped by symbolic, historical, and social meanings attached to the crop. Collective identity and culturally embedded knowledge networks can function as resources for cooperation, but may also create tensions when formal market requirements and external organisational models conflict with local practices. Analysing these cultural underpinnings is therefore essential for understanding how collective self-organisation unfolds in contexts where agricultural livelihoods are inseparable from indigenous world views and community cohesion.

3.7. Conceptual Synthesis: Potentials of Collective Self-Organisation

Across the literature reviewed in this chapter, collective self-organisation emerges as a central—yet highly contingent—mechanism for strengthening the position of smallholder producers in agricultural value chains. Rather than representing a single organisational model, self-organisation encompasses a range of formal and informal arrangements through which producers coordinate economic activities, share resources, and engage with markets and external actors.

The literature highlights several key potentials of collective self-organisation. Economically, collective arrangements can improve market access through volume aggregation, shared post-harvest processing, and joint engagement with quality standards and certification schemes. Organisationally, self-organisation supports learning, trust-building, and the development of collective capacities that individual producers are unlikely to achieve on their own. From a governance perspective, collective organisations may enhance producers' visibility and bargaining power within value chains and institutional environments, particularly when embedded in broader regional or national networks.

At the same time, these potentials are not automatic. According to existing research, internal dynamics, market conditions, and governance environments frequently limit the stability and coherence of collective self-organisation. The literature therefore cautions against normative assumptions that self-organisation will naturally emerge or scale in response to market incentives or external support.

Overall, the literature provides analytically grounded reference points from other cocoa-producing contexts, which serve as comparative lenses rather than benchmarks. These insights inform the subsequent empirical analysis of self-organisational structures in Costa Rica and support the discussion of why organisational potentials unfold unevenly across institutional settings.

4. Methodology

4.1. Research Design and Case Selection

This study applies a qualitative, exploratory research design to analyse how collective self-organisation unfolds among smallholder cocoa producers in Costa Rica. A qualitative approach is appropriate because the research focuses on complex social processes, informal organisational practices, and locally embedded meanings that cannot be adequately captured through quantitative methods. It allows for the exploration of lived experiences and understanding how collective practices and governance arrangements emerge, persist, or change (Creswell, 2007).

The study follows an interpretative case study approach. This study treats Costa Rica as a clearly delimited case and uses three cocoa-producing regions as embedded sub-units to enable internal comparison. This design supports context-sensitive analysis of organisational variation without aiming for statistical generalisation (Creswell, 2007; Yin, 2018).

The study draws on empirical material gathered through qualitative fieldwork and evaluates it using a thematic analytical framework. Interpretation was guided by concepts from the literature on collective action, rural development, and value chain governance. In addition, the analysis incorporates Honduras as a literature-based embedded comparative reference to situate the Costa Rican case within broader Central American dynamics, without establishing it as a second empirical case.

Case Selection

Costa Rica was selected because it represents an analytically instructive case for studying collective self-organisation in a smallholder-dominated cocoa sector. Small-scale farms carry out most cocoa production, and many of them operate within agroforestry systems. This makes collective action relevant for post-harvest management, market access, and coordination (Haynes et al., 2012). At the same time, Costa Rica operates within a fine cocoa niche instead of focusing on bulk production, which heightens the relevance of quality management and coordinated organisational collaboration (Haynes et al., 2012). The country also combines relatively strong public institutions with fragmented and uneven producer self-organisation. Previous research suggests that cocoa support has often been project-based and discontinuous, which can limit long-term organisational consolidation (Dahlquist et al., 2007). This creates a relevant research gap, as existing studies focus more on agroforestry systems or supply chains than on everyday organisational practices of producers. The fieldwork focused on

three main cocoa regions: Caribe Sur, Huetar Norte, and Pacífico Sur. These regions were selected because they represent key production areas and offer contrasting organisational and production contexts.

Honduras is included as an embedded comparative reference in order to contextualise the Costa Rican case within broader Central American dynamics of cocoa production and producer organisation. However, Honduras does not constitute a second empirical case. The study did not include fieldwork or primary data collection there and does not pursue a systematic parallel comparison. Instead, Honduras serves as a literature-based analytical contrast that supports interpretation by highlighting similarities and differences in institutional settings, organisational trajectories, and value chain structures. This asymmetric comparison strengthens the explanatory depth of the Costa Rican findings.

4.2. Data Collection: Fieldwork and Interviews

The unit of analysis in this study is collective self-organisation practices among smallholder cocoa producers, operationalised through producer organisations, informal networks, and their interaction with external actors. This study focuses on understanding how these practices emerge, evolve, and contribute to the sustainability of smallholder cocoa production, rather than testing predefined hypotheses. By applying this approach, the study explores mechanisms and processes rooted in informal rules, personal relationships, and local meanings, dimensions that qualitative methods capture most effectively (Creswell, 2007; Yin, 2018).

Data collection followed an iterative inductive–deductive logic, in which empirical observations and emerging patterns informed ongoing data interpretation, while existing theoretical concepts on collective action and rural organisation provided an analytical lens for structuring and refining insights (Miles et al., 2014). This approach ensured that findings remained grounded in local realities while being systematically connected to broader academic debates.

Snowball sampling was used to identify key actors across three main types: smallholder producers (indigenous and non-indigenous), representatives of cooperatives and associations, and private enterprises. This sampling method was essential due to the fragmented and informal nature of the cocoa sector, with initial entry points facilitated by support from the University of Costa Rica (UCR) and existing contacts (Noy, 2008).

Fieldwork took place in three cocoa-producing regions in Costa Rica: Huetar Norte, Caribe Sur, and Pacífico Sur. These regions were chosen to capture variation in production conditions and organisational dynamics. Data collection occurred during an

extended field stay from 22 September to 05 October 2025, combining interviews with repeated field visits. This design enabled contextual understanding and trust-building, crucial for discussing sensitive organisational issues (DeWalt & DeWalt, 2011). Field visits included direct observations of farms and organisational settings, which enriched the understanding of production practices and cooperative routines.

The core method was semi-structured qualitative interviews, guided by a flexible protocol organised around thematic blocks aligned with the study's research questions. The interview protocol covered five main themes: (a) production conditions and farm-level practices, (b) cooperation and organisational routines, (c) market access and value chain relations, (d) interactions with external actors and governance structures, and (e) social and cultural dimensions of cocoa production, including trust, collective identity, and indigenous practices. Comparative insights from the literature on Honduras were not included as interview themes but were used later as an interpretative reference.

The guide was designed to be flexible rather than a strict questionnaire. It included six overarching guiding questions, with approximately five to six follow-up questions per thematic block. In practice, interviews evolved into open conversations, with respondents encouraged to share detailed examples. The guide ensured thematic focus while allowing space for narrative accounts.

Interviews were conducted in Spanish, lasting 45 to 90 minutes, and were audio-recorded using Smart Voice Recorder, complemented by handwritten field notes. A total of 18 interviews were conducted, with 17 included in the final analysis. One interview with a chocolatier was excluded due to its limited relevance to the focus on smallholder producer organisations. Most interviews took place on farms or within organisational facilities, linking narratives to observed production conditions. Informed consent was obtained, and all participants were anonymised in the analysis and reporting of results.

The sample focused on analytical depth and actor diversity rather than statistical representativeness. While 17 interviews were conducted, this number was considered sufficient for capturing a range of perspectives across key actor types (smallholder producers, cooperatives, private enterprises) and regions (Caribe Sur, Huetar Norte, and Pacífico Sur). Given the study’s time frame and the complexity of the fieldwork, the sample size was adequate for exploring the mechanisms of self-organisation.

All interview recordings and transcripts were stored securely and can be accessed upon request via a shared link. In line with ethical guidelines, no personal identifiers were used in the analysis or final reporting of results. Names were replaced with participant codes,

and only position and number were recorded for reference. Transcriptions were cross-checked for accuracy by reviewing the transcripts against the original audio recordings and field notes. All data will be securely stored for five years, after which it will be permanently deleted.

To strengthen the credibility of this study, triangulation was applied across actor groups and regions. By comparing perspectives from different participants (smallholder producers, cooperatives, and private enterprises) and geographical contexts (Caribe Sur, Huetar Norte, and Pacífico Sur), the study aimed to ensure that findings were not limited to one particular view or context. This approach also helped verify the consistency of key themes and findings across multiple sources.

For transferability, the study provides detailed descriptions of the context and actors involved, enabling future researchers to assess whether the findings can be applied to other settings. While the specific focus on Costa Rican cocoa production limits the scope, the analysis draws on broader theories of collective action and rural development, which may have relevance in similar agricultural contexts.

Dependability was ensured through systematic data collection and analysis procedures, including semi-structured interviews, iterative review of transcripts, and cross-checking against field notes. The study's methodological approach was consistently applied across interviews and regions.

Finally, confirmability was achieved by documenting the research process in detail, from sampling strategy to data collection and analysis procedures. Data was triangulated with field observations and literature-based comparisons (such as with Honduras), providing an external check on the results and enhancing the objectivity of the analysis. (Lincoln & Guba, 1985)

4.3. Data Analysis and Interpretation

The study applies a qualitative thematic approach to the interview data in order to identify recurring patterns and mechanisms of collective self-organisation (Braun & Clarke, 2006). The analysis followed an iterative process and combined inductive category development from the material with deductive interpretation based on concepts from the literature on collective action, rural development, and value chain governance.

Thematic analysis was applied to identify key patterns and themes in the interview data. The analysis was inductive and manual, conducted using Microsoft Word. Audio recordings were carefully listened to, and relevant statements were transcribed and

summarized into compact notes. These notes were then organized into thematic blocks. The analysis examined each block regionally, identified key themes, and compared them across interviews to ensure consistency and coherence.

Interview transcripts and field notes were reviewed repeatedly. All interviews were fully transcribed, with additional notes complementing the transcripts. Transcription was supported by AI-based tools, followed by a manual review to ensure accuracy. To protect participant confidentiality, no personal identifiers were uploaded to these tools, and all sensitive information was anonymised prior to processing. Data was handled carefully and stored securely, ensuring that all information remained confidential throughout the process.

By comparing the three field regions (Caribe Sur, Huetar Norte, and Pacífico Sur), the study examines how organisational practices vary across contexts. In addition, findings were compared across actor types (producers, cooperatives/associations, and private enterprises) to capture relational dynamics within the cocoa value chain. Reliability was strengthened through cross-verification of interview statements with field observations and by comparing perspectives across respondents. Prices were converted into US dollars using official exchange rate data from the Central Bank of Costa Rica (BCCR). For the fieldwork period in October 2025, an approximate exchange rate of 506 CRC per USD was applied.

Interpretation was guided by the conceptual framework developed in Chapter 3, particularly Ostrom's design principles and social capital theory.

4.4. Limitations and Reflexivity

This study is based on qualitative fieldwork conducted within a limited time frame and focuses on a specific set of actors in three cocoa-producing regions. Snowball sampling and existing networks determined access to interview partners and may have influenced which perspectives entered the analysis. Interview data reflects subjective perceptions and may be affected by social desirability or strategic narratives, particularly in contexts where organisational conflicts or market relations are sensitive topics.

The fieldwork was conducted by an external researcher without prior professional involvement in the Costa Rican cocoa sector. This outsider position may have influenced interview dynamics, especially in situations where respondents associated the researcher with academic institutions or international development agendas. Such perceptions can affect how openly organisational challenges, internal tensions, or critical views toward institutions and market actors are articulated.

Access to the field was facilitated through initial contacts and institutional support from the University of Costa Rica (UCR). Although this support helped identify relevant actors and build trust, it may also have affected how the sample was composed. Actors connected to institutional networks or previous project-based collaborations were likely more visible and easier to reach than producers operating outside formal organisational structures.

In indigenous territories, positionality gains particular relevance, as historical sensitivities and potential power asymmetries between external researchers and local communities shape research encounters. For this reason, the study prioritised voluntary participation, informed consent, and strict anonymisation during the interviews. To minimise interpretative bias, the analysis cross-checked interview material with field observations and compared perspectives across actor groups and regions. The final chapter addresses additional limitations and their implications for interpretation (Lincoln & Guba, 1985).

5. Results

Against this contextual background, the next chapter outlines the study's empirical findings and organises them according to the three regions under analysis. The results focus on empirically observable patterns of organisation, market practices, and actor relations. At this stage, findings are presented descriptively, without theoretical interpretation, which is addressed in the subsequent discussion chapter.

5.1. Caribe Sur – Talamanca: Bribri Territory

The results for the Caribbean South are based on semi-structured interviews with four indigenous Bribri cocoa producers, a board member of the producer association APPTA, the director of the women-led association ACOMUITA, an employee of the cooperative Cooproxa, and the owner of the small enterprise Tsuru de Talamanca SRL. The interviewees represent different positions along the local cocoa value chain, including family-based production, collective organisation, small-scale processing, and enterprise-based commercialisation.

To ensure confidentiality, cocoa producers are anonymised and referred to by codes (P1–P4). Representatives of formal organisations and enterprises are referenced by the name of the respective organisation (e.g. APPTA, ACOMUITA, Cooproxa, Tsuru), as their institutional affiliation is relevant for understanding their positioning within the local cocoa value chain.

An overview of interview codes, roles, and locations is provided in Table 3.

Table 3
Interview Codes: Territory Bribri

Code	Role	Location
P1	Cocoa Producer (Bribri Territory)	Amubri Caribe Sur (Talamanca), Costa Rica
P2	Cocoa Producer (Bribri Territory)	Amubri, Caribe Sur (Talamanca), Costa Rica
P3	Cocoa Producer (Bribri Territory)	Amubri, Caribe Sur (Talamanca), Costa Rica
P4	Cocoa Producer (Bribri Territory)	Amubri, Caribe Sur (Talamanca), Costa Rica
APPTA	Board Member of APPTA (Indigenous Producer Association)	Sand Box, Caribe Sur (Talamanca), Costa Rica

ACOMUITA	Director of ACOMUITA (Indigenous Women's Association)	Shiroles, Caribe Sur (Talamanca), Costa Rica
COOPROXA	Employee of Cooproxa Cooperative	Suretka, Caribe Sur (Talamanca), Costa Rica
TSURU	Owner of Tsuru de Talamanca SRL	Suretka, Caribe Sur (Talamanca), Costa Rica

a) Sectoral Context and Production Characteristics

In the Bribri territory of Talamanca, cocoa production is mainly organised through family-owned farms (P1, P3, P4). Most Bribri families cultivate locally valued Criollo varieties, which represent both cultural heritage and economic value (P1, P4). Farms typically range from 1 to 4 hectares and are embedded in agroforestry systems combining cocoa with banana or plantain plants, fruit trees, and native timber species (P3, P4). While cocoa has been cultivated in the region for decades, interviewees explained that it has only recently gained importance as a primary income source, whereas banana cultivation previously played the dominant role (P3, P4). This shift is closely linked to the increased presence of external buyers. As one producer explained: "Before, cocoa was not being bought. It was not like that. Then when the company came to buy cocoa, we started planting." (P3).

Producers largely follow traditional practices, including manual tree management, selective planting, and seasonal harvesting cycles, sometimes linked to lunar phases (P1, P3, P4). Production is mostly organic and based on low external input systems. One producer stated clearly: "We do not work with chemicals here." (P3). Another interviewee emphasised the continuity of traditional cocoa cultivation and the central role of Criollo: "Cocoa has always been produced here… only Criollo… everything is maintained naturally, no chemicals, prohibited." (P1). During interviews and field visits, it became evident that the term "Criollo" was used in a broader locally embedded way, referring to long-established cocoa varieties associated with heritage and authenticity. This does not necessarily correspond to the strict genetic definition of Criollo cocoa in scientific literature, but reflects local understandings of traditional cocoa production. Harvest volumes remain relatively small, usually between 50 and 200 kg per cycle (P3, P4). Almost all interviewed producers reported that the main stock of cocoa trees consists of long-established trees between 20 and 60 years old, maintained over decades. At the same time, newer trees are currently being planted in response to the recent increasing market demand (P1, P3, P4).

To stabilise production, some producers have started integrating hybrid or grafted varieties (P1, P4). These plants begin producing after two to three years and can remain productive for more than 30 years (P1, P4). Criollo varieties require longer maturation, but remain highly valued for aroma and quality. As one farmer stated: “Criollo is excellent… it weighs more and it has more oil.” (P4).

Monilia remains a persistent challenge, although its impact varies across farms (P4). Some producers expressed critical views toward commonly promoted CATIE clones, and interviewees emphasised the importance of maintaining agroforestry-based systems rather than shifting toward input-intensive models (P3, P4). Several producers stated that Monilia incidence has decreased compared to earlier years, linking this to improved management practices and the use of locally adapted plant material obtained through informal exchanges or past projects in cooperation with NGOs and universities (P4). Irregular soil analyses by external researchers on selected farms were mentioned as an indicator of very good soil quality, reinforcing producers’ confidence in agroforestry systems and their limited reliance on fertilisers (P3, P4).

Overall, cocoa production in the Bribri territory relies on small-scale agroforestry systems in which Criollo varieties remain dominant, while producers increasingly use grafted plants to stabilise yields under disease pressure (P1, P4).

b) Self-Organisational Structure and Producer Positioning

Self-organisation in the Bribri territory of Talamanca is highly heterogeneous and fragmented. The interviews show a coexistence of formal associations, cooperatives, private enterprises, and informal family-based production systems (P1, P3, TSURU, APPTA, ACOMUITA, COOPROXA). Indigenous cultural norms strongly influence collective organisation, particularly the Bribri concept of Ulà mạnẽ̲u̲k, which emphasises mutual assistance and collaboration without financial dependency. Many producers therefore rely on informal family networks and flexible cooperation rather than stable formal structures (P1, P3, P4).

Formal organisations exist and play a role in processing, market access, and external representation (ACOMUITA, APPTA, COOPROXA). However, their legitimacy varies. Several interviewees referred to past organisational breakdowns and unstable market relations, which weakened trust and contributed to fluctuating loyalty among producers (P4, APPTA). This fragmentation was confirmed by producers, one of whom stated that “[...] At the moment there is no organisation… people work individually.” (P1).

Within this landscape, a range of locally embedded forms of collective self-organisation operate in parallel, including community-oriented associations, cooperatives, private enterprises, and independent producers (P1, P3, P4, APPTA, ACOMUITA, TSURU). In contrast, purchasing and market coordination are largely concentrated in two external actors: the enterprise Trobanex and the cooperative Cooproxa. They structure market access without being part of these locally rooted collective arrangements (P4, COOPROXA).

The following section presents the main collective self-organisational actors and their positioning within this broader market structure.

Acomuita (Asociación de Mujeres Indígenas de Talamanca) is a women-led association with more than 30 years of activity in the Bribri territory (ACOMUITA). It operates as a non-profit association, reflecting a governance model oriented toward community development. Its mandate extends beyond cocoa production to broader community and women's empowerment goals. According to its representative, ACOMUITA actively works to strengthen women's roles in all areas of decision-making within the indigenous territory (ACOMUITA). Membership mainly consists of subsistence-oriented cocoa-producing families with limited financial resources. In recent years, the association expanded into small-scale cocoa processing and chocolate production. It operates a collective chocolate facility and has developed fermentation and drying infrastructure. ACOMUITA therefore represents a hybrid structure combining social organisation, modest value-added processing, and collective coordination (ACOMUITA).

Appta (Asociación de Pequeños Productores de Talamanca) is one of the oldest indigenous producer associations in the region. It was founded in the 1980s to improve cocoa and banana commercialisation and strengthen indigenous self-organisation across Bribri and Cabécar territories (APPTA). At its peak, APPTA held international organic and Fair trade certifications and played a central role in connecting producers to international markets. Following organisational and financial breakdowns, including the loss of certification, APPTA's capacity declined significantly (APPTA). To maintain operations, an auxiliary organisation (APIT) was created to manage activities through APPTA's infrastructure, including fermentation and drying facilities and processing equipment (APPTA). Today, APPTA represents around 260 producers and focuses on rebuilding trust and stabilising market access (APPTA). However, it continues to face financial constraints that prevent certification, as well as logistical barriers and fragile producer loyalty (APPTA).

Tsuru de Talamanca SRL is a small-scale private enterprise operating independently from formal producer organisations. It purchases fresh cocoa from local producers, processes it through fermentation and drying, and sells premium-quality cocoa mainly to national artisanal chocolate makers (TSURU). Governance is informal and centralised, with decision-making concentrated within the enterprise owner and family network. Tsuru maintains limited engagement with formal organisations but functions as an intermediary between family-based production and higher-value markets. It also engages in informal support initiatives, such as sharing grafting knowledge and maintaining a small greenhouse for cocoa seedlings (TSURU). Tsuru therefore represents an entrepreneurial model prioritising operational efficiency and quality control rather than collective governance (TSURU).

Cooproxa (Cooperativa de Productores de Cacao de Bocas del Toro) is included here as a key market actor in cooperative form. While it plays a central role in structuring market access in the Bribri territory, it is not a locally emerged organisation. Based in Panama, Cooproxa sources cocoa from more than 30 Bribri and Cabécar communities in Costa Rica and Panama (COOPROXA). It operates at a significantly larger scale than local associations, purchasing fresh cocoa from around 475 producers and managing centralised fermentation, drying, and export-oriented processing (COOPROXA, P4). Cooproxa also provides technical assistance and transport-related support (P4, COOPROXA). The cooperative is positioned primarily as an economic actor focused on volume aggregation, price stabilisation, and international market access.

Individual Producers

A significant share of cocoa producers in the Bribri territory operates outside formal membership-based organisations (P1, P3, P4). These producers manage family farms and sell cocoa individually to private enterprises or cooperatives, most commonly Trobanex and Cooproxa (P4). Interviewed producers emphasised autonomy and reduced bureaucracy as key advantages (P1, P3).

At the same time, they expressed interest in collective solutions, especially shared fermentation and drying infrastructure (P1). However, interviewees stated that collective activities often depend on external impulses or individual leadership rather than being initiated internally (P1, P3). Current price levels and restricted access to organisational and market-related information strongly shaped production and marketing decisions (P1, P4). While these producers face relatively low organisational risk, they remain embedded in externally coordinated market structures and have limited influence over pricing or processing decisions (P1, P4).

Interview data further reveal a structural knowledge gap that constrains stronger collective self-organisation. While producers possess substantial agroecological expertise, administrative, financial and commercial capacities remain limited (P1, P2, APPTA). Representatives of APPTA linked earlier organisational crises to the absence of specialised staff and professional administrative know-how, particularly in accounting, commercial management and international trade coordination (P2, APPTA). Individual producers similarly referred to a weak organisational specialisation and insufficient technical capacity as factors that undermined confidence in collective structures (P2, P3).

Overall, cocoa marketing in the Bribri territory remains largely structured by two external actors. Locally embedded forms of collective self-organisation exist, yet they remain weakly interconnected and exercise limited influence over price-setting and market coordination. While producers express continued interest in collective solutions, past organisational instability and persistent capacity constraints have contributed to ongoing scepticism toward formal collective structures.

c) Market Conditions and Economic Situation

In the Bribri territory, market conditions revolve around small production volumes, price volatility, and a strong reliance on intermediaries (P1, P4, APPTA). Direct access to international buyers remains limited due to low volumes and certification costs (APPTA, ACOMUITA). Market participation is therefore largely mediated through enterprises, cooperatives, and associations that aggregate cocoa and manage processing and commercialisation (P4, COOPROXA, APPTA).

In October 2025, fresh cocoa was sold at prices between 2.57 and 2.97 USD per kilogram (P4), while dried and fermented cocoa reached up to 8 USD/kg (APPTA, ACOMUITA). Figure 3 shows that global cocoa prices have risen significantly in recent years, reaching comparatively high levels at the time of fieldwork.

Figure 3
Global price of Cocoa (PCOCOUSDM)

Source: International Monetary Fund, Global price of Cocoa [PCOCOUSDM], retrieved from FRED, Federal Reserve Bank of St. Louis; https://fred.stlouisfed.org/series/PCOCOUSDM, February 14, 2026.

Although prices were described as favourable, producers recalled earlier periods of instability (P1, P4). As one producer stated: “Right now yes, because the price is good. So we don’t have complaints anymore. At least with that we can defend ourselves.” (P4). High prices have triggered increased planting activity, including among younger community members (P3, P4). However, producers explained that expansion often occurs without long-term planning, partly due to limited economic education and market information (P1, Tsuru). Selling decisions remain highly responsive to short-term price differences. As one producer explained: “Trobanex pays less… so we don’t sell to them. Cooproxa is better… it pays 1,500 colones per kilo.” (P4). Concerns about limited transparency in price formation were also expressed (P1). At the same time, Trobanex enables certified sales through enterprise-based organic certification at territorial level, reducing individual certification costs (P4).

Acomuita focuses on small-scale chocolate production and direct sales, but processing remains limited due to restricted raw material supply and capital (ACOMUITA). Tsuru de Talamanca SRL reported that demand is not the main limitation, but rather available cocoa volumes (TSURU).

Appta’s current market position remains affected by past organisational breakdowns and the loss of certification, which have reduced its capacity to access premium markets and stabilise commercial relationships (APPTA). At the time of fieldwork, sales were largely channelled through a single buyer, limiting negotiation capacity (APPTA). The lack of specialised market expertise further proved consequential: without professional knowledge of international price developments, the organisation struggled to anticipate market shifts (P2). Producers likewise reported limited transparency regarding global

cocoa markets, price formation, and quality-based price differentials (P1, P4). At the same time, interviewees expressed clear interest in training and capacity-building, particularly in administration, marketing and processing (P1, P2, TSURU).

Overall, cocoa marketing in the Bribri territory is relatively stable but externally structured. High prices currently increase production incentives, yet fragmented organisation and reliance on intermediaries limit the scope for long-term collective market strategies.

d) External Actors and Governance Environment

Two external actors, Trobanex and Cooproxa, largely structure market coordination in the Bribri territory by combining purchasing functions with technical and logistical support (P4, COOPROXA). Individual smallholders rely directly on these buyers to access markets. They often perceive these relationships as stable arrangements that provide a certain degree of commercial security (P4). In contrast, interview data indicate that formal producer organisations such as APPTA and ACOMUITA have somewhat greater flexibility in structuring buyer relationships, as sales and processing can be organised collectively (APPTA, ACOMUITA).

While these actors primarily operate as buyers, they also assume important functions within the local governance environment. Trobanex facilitates enterprise-based organic certification at territorial level and provides technical assistance linked to export requirements (P4). Cooproxa supports producers through collection logistics, fermentation and drying infrastructure, and access to international markets via Panama (P4, COOPROXA). Producers highlighted transport support as particularly relevant, as individual marketing is difficult due to weak infrastructure (P4).

Beyond these market-dominating actors, support in the Bribri territory is provided by a diverse set of external organisations, including NGOs, national institutions, universities, cooperatives, and international partners (APPTA, ACOMUITA, P1, P4). Their engagement ranges from market-linked assistance to project-based capacity building.

Formal producer organisations interact with external actors in different ways. APPTA collaborates with universities, regional associations, and development partners, particularly in areas related to production techniques, quality improvement, and organisational strengthening (APPTA). However, historical difficulties, internal instability, and disruptions in certification have limited continuity, constraining APPTA's ability to fully benefit from external support (APPTA).

Acomuita receives more targeted institutional support focused on capacity building and community development (ACOMUITA). Institutions such as DINADECO, INDER, and INAMU (National Institute for Women) provide training related to production, organisational management, and social development. In addition, partnerships with European actors supported administrative capacity building and knowledge transfer in processing and value-added production (ACOMUITA).

Producers also referred to short-term project-based activities, including workshops on grafting, plantation management, disease control, and cocoa processing (P1, P3). Some interviewees recalled an earlier extension initiative distributing planting material and basic knowledge (P1). While such initiatives contributed to the continued presence of cocoa, they were not institutionalised as permanent support structures.

Although several external actors were present, support frequently remained inconsistent and fragmented. One producer expressed this clearly: “I would like that at some point an organisation would return again… that they bring us training… so that more people learn how to do grafting.” (P1). This indicates that external support is often perceived as temporary and dependent on project cycles. Participants repeatedly characterised state support as limited and inadequate, particularly with regard to sustained technical guidance and structural financing (P1, APPTA). Geographic isolation, poor roads, and dependence on river transport increase costs and reduce the reach of extension services (P4, APPTA). In addition, restricted access to credit under indigenous land law (Ley N°6172) limits investment capacity at household and organisational level (APPTA, ACOMUITA). These structural conditions reduce the long-term effectiveness of external support and constrain scaling of production and processing activities.

e) Cultural Significance and Social Dimensions

Cocoa in Bribri culture carries strong social, cultural, and environmental meaning (P1, P3, P4, ACOMUITA). Several interviewees portrayed cocoa as culturally “feminine” and highlighted that women possess specific expertise related to its processing and preparation (ACOMUITA). Agroforestry systems were repeatedly presented as essential for maintaining ecological balance and long-term land stewardship (P3, P4).

Interviewees connected cocoa cultivation to family traditions and intergenerational knowledge transmission (P1, P3). Producers highlighted patience and respect for natural cycles, reinforcing a preference for agroforestry-based systems. At the same time, they distinguished between household-level cocoa cultivation and market-oriented production. Many families maintain traditional Criollo trees in home gardens (P1, P4), while

commercial production is concentrated among specialised producers who integrate hybrid varieties for more stable yields (P3, P4). These two production logics often coexist within the same households (P1, P3).

Cultural valuation and market perceptions of quality overlap. As one producer explained: “Criollo is excellent… it weighs more and it has more oil.” (P4). This illustrates that heritage and quality are closely linked in local understandings.

Interviewees emphasised social cohesion and mutual support as central values; however, administrative complexity, limited training opportunities, and diverging priorities among producers complicate collective organisation (P1, APPTA). Interviewees suggested that cooperation is most feasible when it respects individual autonomy while enabling practical collaboration (P1, P3). At the same time, concerns about unequal power relations in market integration were voiced. One producer stated: “I have seen that companies always play with us indigenous people here.” (P3). This situation reveals tensions between cultural embeddedness and a perceived vulnerability within market structures that external actors largely influence.

f) Challenges, Opportunities, and Future Perspectives

Most frequently mentioned constraints.

Across interviews, producers repeatedly identified plant diseases such as Monilia and black pod disease (Phytophthora spp.**)** as major constraints for stable production (P4), which contributes to low production volumes overall (P4). Several interviewees also identified limited knowledge in processing and organisational management as a barrier to stronger self-organisation (P1, APPTA). Producer loyalty was often portrayed as fragile, since selling decisions shift quickly depending on price differences between buyers. Some producers expressed uncertainty about engaging in self-organisation due to negative past experiences with collective structures (P4). In addition, restricted access to credit under indigenous land law was repeatedly mentioned as a structural limitation, reducing investment capacity for both households and associations (APPTA, ACOMUITA).

Most frequently mentioned opportunities.

At the same time, interviewees pointed to opportunities in expanding value-added processing and product diversification (ACOMUITA, TSURU, P1). Shared post-harvest infrastructure was seen as a practical pathway to improve quality and income prospects. As one producer explained, “producers can use the plant to dry… to add value to their

work.” (P1). Agroforestry-based sustainability practices were also mentioned as a potential advantage for niche market positioning (P1, P3, APPTA).

Future-oriented statements, wishes, and plans.

Future perspectives were mainly framed around strengthening existing initiatives rather than creating new structures. Smaller associations were highlighted as working examples under local conditions (TSURU, ACOMUITA). A key need repeatedly expressed was improving commercial and administrative capacities, captured by APPTA’s statement: **“**We need more skills in commercialisation**.”** (APPTA). Overall, interviewees linked future development to gradual organisational consolidation, improved processing capacity, and cautious expansion that maintains cultural and environmental integrity (P1, P4, ACOMUITA, TSURU).

5.2. Región Huetar Norte

The results for the Northern Region are based on interviews with an indigenous Maleku cocoa producer, a member of the board of directors of the producer association Asopac, the owner of the small enterprise Itamú, and a member of the board of directors of the women’s association Amecup The interviewees represent different organisational forms, ranging from individual indigenous producers to associations and regionally networked actors engaged in production, processing, and sector coordination.

The same coding system described above applies to the Northern region. Interviews conducted in multiple sessions, (e.g. Itamú a-d) refer to the same interview partner and are therefore treated as one case in the analysis.

Table4

Interview Coding: Huetar Norte

Code	Role	Location
AMECUP	Representative of Amecup (Women’s Association)	San José de Upala, Región Norte (Provincia de Alajuela), Costa Rica
ASOPAC	Representative of Asopac (Cocoa Producers Association)	Guatuso, Región Norte (Provincia de Alajuela), Costa Rica

ITAMU	Founder/Representative of Itamú (Cocoa Enterprise & Platform Initiative)	Guatuso, Región Norte (Provincia de Alajuela), Costa Rica
MALEKU	Maleku Indigenous Cocoa Producer	Maleku Territory, Guatuso, Región Norte (Provincia de Alajuela), Costa Rica

a) Sectoral Context and Production Characteristics

Cocoa production in the Huetar Norte region relies on heterogeneous smallholder systems and predominantly follows agroforestry-based cultivation. Interviewees consistently framed cocoa as a crop that has regained importance following an earlier decline triggered by Monilia and a turn toward rice cultivation, pineapple production, and extensive cattle ranching (AMECUP). In recent years, renewed interest has been driven by higher global prices and the perception that cocoa offers a viable diversification strategy (AMECUP). Across the interviews, participants repeatedly characterised cocoa cultivation as “al revuelto” (mixed together), combining it with plantain, banana, and other Musaceae that serve as primary shade providers. These crops were valued for their fast growth, their role in maintaining soil humidity, and the ability to control shade through periodic removal (AMECUP).

Although Maleku producers represent only a small share of overall cocoa production in the Huetar Norte region, they maintain a particularly strong cultural approach to cultivation. One Maleku producer illustrates the culturally embedded end of this spectrum. On a farm of around two hectares, cocoa has been cultivated for more than 60 years and is framed as complementary to broader forest-based livelihoods: “The forest gives everything… cocoa is more like a complement” (MALEKU). Cocoa is grown alongside maize, cassava, plantain, bananas, avocado and coconut, with fruit trees intentionally planted to feed wildlife and reduce damage to cocoa pods (MALEKU). Respondents explicitly rejected CATIE clones as “processed,” while they portrayed Criollo varieties as essential for flavour and authenticity, even though these produce lower yields (MALEKU).

Historically, cocoa played a significant role in the region. Before the 1970s and 1980s, it was widely cultivated and processed locally into chocolate paste for beverages and traditional dishes. Fermentation and drying often took place at farm level, and fresh cocoa beans were sold across the Nicaraguan border. The outbreak of Monilia marked a turning point. Large areas were abandoned, trees were cut, and land use shifted toward other agricultural activities. During this period, cocoa was perceived as economically

unviable, contributing to the decline of tree-based systems. Nevertheless, old cocoa trees still found on private land indicate its long-standing presence (ITAMU.

While Criollo varieties remain present among both Maleku and non-indigenous producers, some farmers introduced Trinitario varieties and grafted plants derived from CATIE material, indicating diversification of genetic strategies (ITAMU).

b) Self-Organisational Structure and Producer Positioning

Self-organisation in the northern region takes multiple forms (ITAMU, ASOPAC, AMECUP, MALEKU). It ranges from informal indigenous networks to formal associations and regional coordination initiatives. These structures coexist and partly overlap, reflecting differences in cultural background, access to resources, and market integration.

Within the interviewed **Maleku** community, around nine cocoa producers exist, but only two have entered active commercialisation (MALEKU). Organisation remains informal and is largely based on personal networks. Communication takes place mainly through WhatsApp groups, both within the Maleku territory and in exchange with other producers in the northern region (MALEKU). However, participation in broader organisational structures is limited. One interviewee reported being formally connected to Asopac, but explained that involvement in a leadership role was not feasible due to workload and distance (MALEKU, ASOPAC).

Alongside small-scale and indigenous production, more structured processing actors operate in the region. **Amecup** represents a commercially oriented model combining cocoa production with women-led organisational development (AMECUP). Founded in 2015 as a non-profit women's association, it allows income-generating activities as long as they benefit members. Today, it consists of ten women who each operate micro-enterprises. With NGO support, the association developed cocoa-based products and established its own chocolate processing facility. This provides shared infrastructure, managed through distributing responsibilities across production, administration, accounting, and communication. AMECUP processes around 200 kg of cocoa per month and purchases a similar volume of fresh cocoa from small producers. By sourcing cocoa fresh, the association controls fermentation and drying to ensure consistent quality (AMECUP).

Asopac, founded 14 years ago, was created "to promote cocoa production and to keep cocoa producers united, so they would not be scattered—one here and one there" (ASOPAC). It works with around 14 tons of fresh cocoa annually, resulting in approximately 3.5 to 4 tons of dried cocoa: "This year we are working with around 14

tons…which results in approximately 3.5 or 4 tons of dried cocoa" (ASOPAC). The association has 42 members and is managed by a board and general assembly. Members operate diversified farms combining cocoa with banana cultivation and cattle. While Asopac maintains coordination and mutual support among producers, it operates without paid staff and lacks central processing infrastructure. Fermentation and drying are mainly managed at farm level, and cocoa is marketed collectively or individually, including through Itamú (ASOPAC). A central focus of Asopac is education, including training activities such as the "escuelita de cacao" (small cocoa school) and cocoa programmes in schools to strengthen local knowledge and future engagement in cocoa cultivation (ASOPAC).

Itamú, as a small private enterprise, supports self-organisation by strengthening regional processing and commercialisation capacities (ITAMU). The founder emphasised that organisational success depends on purpose: "The reason why a group succeeds depends on why they organised in the first place. If they unite to ask for funds, they will remain dependent. But if they unite to commercialise and generate income together, they have a much higher chance of success" (ITAMU). In practice, Itamú functions as a processing and knowledge hub, providing technical guidance on fermentation and drying, supporting value-added processing, and connecting producers to buyers. The owner acts as an intermediary between individual producers and broader value chains, with a primary focus on national markets (ITAMU).

At the regional level, Plataforma Norte represents an important informal coordination initiative (ASOPAC, ITAMU). Established around three years before fieldwork, it brings together producers, processors, intermediaries, universities, and public institutions such as MAG and INDER. The platform meets monthly and includes around 60 participants. As one actor noted: "The meetings have not been suspended; they continue month after month, and even more people are joining" (ASOPAC). Three working groups focus on quality and standardisation, production improvement, and climate change: "The lines of work are: one, quality and standardisation; two, production improvement; and third, climate change" (ASOPAC). Although informal and voluntary, discussions about formalisation are ongoing to secure funding and continuity (ASOPAC).

Self-organisation in the northern region therefore ranges from informal indigenous networks to structured associations and a growing regional platform, all appearing to be closely interconnected. Individual positioning depends on cultural orientation, mobility, time availability, and access to organisational resources.

c) Market Conditions and Economic Situation

Market participation is shaped by limited production volumes, quality-oriented strategies, and structural constraints related to logistics and capital (ITAMU, AMECUP, MALEKU, ASOPAC).

For Maleku producers, commercialisation remains small-scale and recent (MALEKU). Through support from Itamú, producers learned fermentation, drying, and paste production techniques. This enabled a shift from selling fresh cocoa to producing cocoa paste for tourists and local markets. Collaboration with local entrepreneurs expanded marketing options (ITAMU). However, expansion is not prioritised. As one producer stated: “It is not about connecting internationally. That is not part of us, not in our spirit as indigenous people” (MALEKU). Economic activity is considered acceptable only if compatible with agroecological land use and ecosystem balance.

Amecup operates within stronger market integration (AMECUP). Prices are linked to global cocoa markets, yet national certifications generate limited price premiums. Economic viability therefore depends on cost management. Amecup sources cocoa locally, controls fermentation and drying internally, and limits packaging expenses. As one representative explained: “We can keep prices low while maintaining high quality… even if we do not use luxury packaging” (AMECUP). This strategy allows affordable products while ensuring fair compensation.

Beyond individual enterprise strategies, market structures in the northern region have gradually shifted from foreign-dominated purchasing towards stronger competition by local enterprises and associations offering more stable buyer relations (ITAMU, ASOPAC). Export markets remain largely inaccessible. As one interviewee explained: “Export is complicated… you need permits, you need volume… for the smallest buyer I needed at least half a ton of dried cocoa” (ITAMU). Export requires registration, traceability systems, certifications, and working capital coordinated through Procomer (ITAMU). For most small-scale actors in this region, these requirements are unrealistic. The national market is therefore the most viable option. However, limited data on costs and production volumes restrict strategic planning (ASOPAC, ITAMU).

d) External Actors and Governance Environment

The governance environment includes public institutions, NGOs, universities, and regional networks (ITAMU, AMECUP, ASOPAC, MALEKU). Access varies depending on location and degree of organisation. However, consistent state support for small-scale

cocoa producers remains structurally weak and largely project-based (ITAMU, ASOPAC, AMECUP).

Maleku producers mainly engage through sporadic training and informal contacts (MALEKU). Interviewees regarded the workshops organised by Itamú as valuable; however, long distances and poor road infrastructure restrict participation. Knowledge of broader governance structures remains uneven (MALEKU).

Public institutions such as MAG provide technical assistance. Universities increasingly engage in research and training related to sustainable land use (ASOPAC). Amecup, as a legally recognised association, benefits from stronger institutional integration. It has accessed community development funds and received NGO support, including from Bread for the World (AMECUP). In 2022, one founder invested the regional Nansen Refugee Award prize into establishing the chocolate factory (AMECUP). Nevertheless, funding remains project-based.

Through Plataforma Norte and the growing interlinkages between associations, market-related governance functions have emerged, including informal price transparency and coordination of volumes. Plataforma Norte collaborates with MAG, INDER, INA, Procomer, and municipal authorities, and while it was initially supported by universities, coordination has increasingly shifted toward producers themselves (ASOPAC, ITAMU). This contributes to reducing opportunistic undercutting, strengthening the bargaining position of local actors, and fostering increasing regional autonomy from external buyers.

Procomer (Costa Rica's export promotion agency) shapes the regulatory framework for export participation, yet volume thresholds, certification requirements, and traceability systems structurally limit access for small-scale actors (ITAMU). While AMECUP holds the national Bandera Azul Ecológica certification, this scheme primarily recognises clean energy use rather than organic standards, illustrating how available governance instruments do not necessarily align with smallholder production practices (AMECUP).

Overall, the northern region shows growing institutional density, yet access remains uneven. Formal associations and coordinated platforms benefit more strongly, while individual and indigenous producers face infrastructural and informational barriers (MALEKU). At the same time, the expanding network of self-organised initiatives increasingly enables local actors to coordinate knowledge, processing, and market access more independently, gradually reducing reliance on external intermediaries.

e) Cultural Significance and Social Dimensions

Cultural meanings and sustainability values strongly influence cocoa production in the northern region (MALEKU, AMECUP, ASOPAC, ITAMU).

Maleku producers base their organisational efforts largely on shared cultural identity and collective values (MALEKU). Cocoa is regarded as sacred and embedded in ecological worldviews. Commercialisation is considered possible, but only if compatible with cultural continuity and forest protection. As one producer explained: “There must be balance… our vision is not to turn everything into a business” (MALEKU). Another interviewee emphasised: “Our ancestors tell us to use medicinal plants, but not to exterminate them… there must be balance to protect nature” (MALEKU).

AMECUP integrates social engagement into economic activity. The association supports women and migrants in administrative and refuge-related matters (AMECUP). The leadership of one of the founders of the association strengthens local legitimacy. Income from chocolate processing enables community-oriented initiatives, linking economic viability with social purpose.

At the regional level, interviewees observed a transition from competitive dynamics toward more cooperative forms of interaction (ASOPAC, ITAMU). Producers increasingly exchange knowledge and coordinate efforts. Plataforma Norte institutionalises this cooperation through shared collective strategies. Beyond purely economic considerations, respondents portray cocoa as a socially embedded crop that holds significant relevance for community life. Asopac particularly highlights education and intergenerational knowledge transfer as essential, arguing that a “cocoa culture” must be actively (re)built and maintained through training activities, local workshops, and school programmes (ASOPAC). This indicates that cocoa is not only framed as an agricultural commodity, but as a cultural and community-based practice linked to identity, learning, and long-term social cohesion. Overall, the northern region shows a strong sense of community, dense social interconnectedness, and shared sustainability values, which reinforce cooperation and strengthen the region’s collective position within the cocoa sector.

f) Challenges, Opportunities, and Future Perspectives

Most frequently mentioned constraints.

Across interviews, actors repeatedly referred to the historical decline after Monilia, which led many producers to shift to cattle, rice, or pineapple; cocoa has only gradually re-emerged and remains characterised by low volumes and fragmented smallholder structures (AMECUP, ITAMU). Limited specialised technical and administrative knowledge, together with working capital constraints, were frequently mentioned as key challenges (ASOPAC, ITAMU). This mainly concerned post-harvest handling, as value-added processes are still relatively new for many producers (ITAMU). Interviewees widely regarded export participation as unrealistic for most small-scale actors because permit requirements, traceability systems, certification costs, and minimum volume thresholds create substantial barriers (ITAMU). Several interviewees also criticised project-based support that prioritised consultancies over tangible investments for producers (ITAMU).

Most frequently mentioned opportunities.

At the same time, interviewees highlighted the strength of diversified agroforestry systems (“al revuelto”) combining cocoa with Musaceae and fruit trees, which were seen as supporting resilience and quality-oriented production (AMECUP, MALEKU). Expanding local processing capacities—fermentation, drying, paste and chocolate production—was repeatedly framed as a realistic pathway to increase value retention within the region (AMECUP, ITAMU, ASOPAC). Actors also highlighted the importance of regional exchange, particularly through Plataforma Norte, which brings together producers, processors and institutions on a monthly basis (ASOPAC, ITAMU).

Future-oriented statements, wishes, and plans.

Future perspectives were mainly linked to consolidating the national market rather than pursuing export expansion (ITAMU). Several actors expressed the need for stronger coordination and shared quality standards, and described Plataforma Norte as an already functioning space for regular exchange and increasing regional connectedness. At the same time, formalisation was repeatedly discussed as the next key step to strengthen its institutional standing and improve access to funding opportunities (ASOPAC, ITAMU). At the same time, indigenous producers stressed that commercialisation should remain compatible with cultural values and ecological balance, and not lead to large-scale expansion (MALEKU). Overall, interviewees associated future development with gradual strengthening of regional collaboration, improved

quality management, and continued integration of cocoa within diversified agroforestry systems (AMECUP, ASOPAC, ITAMU, MALEKU).

5.3. Región Pacífico Sur – Osa Peninsula

The results for the Pacific South are based exclusively on interviews with three cocoa producers who are members of the cooperative Osacoop, as well as an interview with the manager of the cooperative. The interviewed producers operate family-owned cocoa farms and participate in collective production and commercialization through Osacoop. Interviews in the Pacífico Sur region were partly conducted in multiple sessions (e.g. Producer 1 a–c). These transcripts refer to the same interview partner and are therefore treated as one case in the analysis.

Table 5
Interview Coding: Osa Peninsula

Code	Role	Location
OP1	Cocoa Producer in cooperative Osacoop	La Palma, Península de Osa, Pacífico Sur, Costa Rica
OP2	Cocoa Producer in cooperative Osacoop	La Palma, Península de Osa, Pacífico Sur, Costa Rica
OP3	Cocoa Producer in cooperative Osacoop	La Palma, Península de Osa, Pacífico Sur, Costa Rica
OM	Manager / Representative of cooperative Osacoop	La Palma, Península de Osa, Pacífico Sur, Costa Rica

a) Sectoral Context and Production Characteristics

Cocoa production in the South Pacific region is embedded in a highly diversified agricultural landscape and is closely linked to the cooperative Osacoop, of which all interviewed producers are members (OP1, OP2, OM). Historically, the region has experienced several shifts in dominant production systems. Before the Monilia outbreak in the 1980s, cocoa played a more important role, but the disease led to the removal of cocoa trees and a transition toward palm oil, cattle, rice, and other crops. In recent years, cocoa has been reintroduced as part of broader diversification strategies, often combined

with vanilla, bamboo, and agroforestry systems (OP1, OP3). Producers combine mixed land use with markedly different scales of operation.

Production systems are characterized by mixed land use and strong differences in scale. Farms range from small cocoa plots of one to two hectares to combinations with larger properties of up to 90 hectares, often including extensive protected forest areas. As one producer explained, “Some of us have only one or two hectares of cocoa, but others have large farms with forest areas. It depends on each producer” (OP3). Several producers maintain a significant share of their land under conservation, reflecting both the ecological importance of the region and individual management priorities (OP3). Cocoa is commonly integrated into agroforestry systems together with palm, fruit trees, vanilla, bamboo, and shade trees (OP1, OP3). At the same time, producers highlighted the geographical isolation of the region and poor infrastructure as a structural constraint. Access to markets and services is limited, and road conditions remain challenging, making transport and coordination more difficult (OM, OP2).

The use of agrochemicals is limited or avoided by several producers (OP1, OP3). Organic practices are applied in some cases, but formal organic certification is generally absent due to cost and administrative barriers (OM). Cocoa varieties in the region consist mainly of CATIE clones. These were introduced through government-supported projects, particularly through INDER initiatives that distributed planting material to cooperative members (OM). Production volumes remain relatively low because many plantations are young and still in early productive stages (OM). Harvesting takes place throughout the year, with a clear peak season between July and November (OM). Farm-level processing is limited, since most producers sell fresh cocoa to the cooperative, which centralises fermentation and drying.

Overall, cocoa remains a minor part of agricultural production compared to palm oil and livestock. As one producer stated, “Cocoa is not our main crop; palm and cattle are still stronger. But cocoa is safer and fits better with agroforestry” (OP1). This is also reflected in Osacoop’s broader production focus, which remains strongly centred on palm oil. At the same time, recent investments in chocolate processing infrastructure indicate a gradual strategic shift, positioning cocoa as an increasingly important complementary activity within the cooperative (OM). Interviewees emphasised that cocoa entails lower production risks than palm oil, aligns well with agroforestry systems, and offers opportunities for local value addition (OP1, OM).

b) Self-Organisational Structure and Producer Positioning

Self-organisation in the analysed Osa Peninsula is strongly centred around Osacoop (OM, OP1, OP2, OP3). The cooperative was founded in 2000 by local producers in response to economic pressure, land-use conflicts, and limited access to markets and credit. It is located around 300 meters outside of Palma and includes infrastructure for offices, seminars, processing spaces, a chocolate factory, and accommodation for tourists (OM).

Osacoop currently has approximately 100 individual members. It operates under a formal governance structure that includes a board of directors, an oversight committee, and a committee for education and social welfare (OM). The General Assembly represents the highest decision-making body. Daily operations are coordinated by a manager and supported by technical staff (OM).

The cooperative's organisational model emphasises collective action, mutual support, and community-oriented development alongside profit maximisation. As one producer stated, "If someone has a problem, we try to help" (OP2). Technical support is provided through cooperation with agricultural engineers from MAG and other institutions (OM). Osacoop serves as a local platform for continuous capacity building. Workshops, seminars, and training sessions are organised both internally through cooperative committees and in cooperation with external institutions like MAG. These activities cover production, soil and disease management, and diversification strategies, including cocoa among other crops (OM). This training and advisory infrastructure is not limited to individual members but contributes to local knowledge transfer and rural development in the surrounding communities (OM).

The interviewed producers occupy different positions within this structure (OP1, OP2, OP3). One producer holds a formal role in technical support and actively advises other members. Others participate with different responsibilities within the cooperative hierarchy. All interviewees sell their fresh cocoa to Osacoop and benefit from centralised processing, training, and market access (OP1, OP2, OP3, OM).

Beyond the cooperative itself, regional coordination among cocoa producers remains limited. One interviewee referred to the informal network "Cacauteros del Sur", initiated through MAG, which mainly functions via WhatsApp exchange and occasional advice-sharing rather than through regular collective meetings or coordinated marketing activities (OP2). Interviewees explained that long distances, transport costs, and limited

incomes reduce participation in broader regional initiatives, reinforcing Osacoop's central role as the main organisational anchor for cocoa producers in the area (OP2, OM).

While Osacoop is generally perceived as essential for sustaining cocoa production in the region, perceptions of its internal functioning vary (OP1, OP2, OP3, OM). Some producers expressed strong confidence in the cooperative's direction and highlighted the advantages of collective organisation. Others pointed to limitations related to limited human resource capacity, workload concentration, and long-term strategic planning (OP1, OP3). As one interviewee noted critically, "Sometimes people think only about themselves… and that makes collective work difficult" (OP2). These factors influence participation levels, openness to innovation, and engagement in collective initiatives (OP2, OM). Despite these limitations, the cooperative is generally viewed as a space where shared interests, community well-being, and sustainable development goals come together (OP1, OM). Nonetheless, all interviewees identified cooperative membership as a crucial condition for sustaining cocoa production, particularly given the difficulties associated with participating in markets independently. As one interviewee stated clearly, "If we were not in Osacoop, it would be very difficult to sell cocoa" (OP2).

c) Market Conditions and Economic Situation

Market participation for cocoa producers in the Osa region is largely mediated through Osacoop (OM, OP1, OP2, OP3). Producers sell fresh cocoa to the cooperative, which is responsible for fermentation, drying, quality control, and commercialization. As the cooperative manager explained, "The producers deliver the cocoa fresh. The cooperative takes care of fermentation, drying and commercialization" (OM). Prices are linked to international cocoa market prices. The payment system includes partial upfront payments and final settlements once dried beans are sold. Interviewees characterised this model as offering a degree of market security; however, it does not fully protect producers from price volatility (OM, OP1, OP2).

The cooperative has invested in processing infrastructure, including fermentation and drying facilities and a chocolate factory. Beyond externally funded projects, several facilities were financed through Osacoop's own economic performance, highlighting the cooperative's sustained financial consolidation over time (OM). This infrastructure allows Osacoop to pursue value addition through chocolate production and differentiated cocoa products (OM). However, dried beans remain the main output. As the cooperative manager emphasised, "We have chocolate, but the volumes are still small compared to selling dry cocoa" (OM). The cooperative has developed its own chocolate label and sells limited quantities of finished products in local markets and small retail outlets. These

activities are currently seen as market positioning and network-building rather than as a major income source, since chocolate production is still in an early development stage and is expected to expand further (OM).

Cocoa volumes in the region remain too low for large-scale exports (OM). Although international markets, including European buyers, are mentioned as possible future outlets, access is currently restricted by logistical constraints, limited production volume, and the absence of international certifications (OM). As a result, the national market represents the main commercial focus. Most cocoa enters the market through a national processing buyer, whereas direct local sales channels remain limited and export activities face constraints due to volume thresholds and certification requirements (OM). Local sales also play a role and are closely linked to tourism dynamics (OM, OP2).

Agritourism represents a complementary but still secondary income source for both the cooperative and individual producers (OM, OP2, OP3). Some members have developed small-scale initiatives on their farms, such as guided tours through agroforestry systems, cocoa processing demonstrations, and participatory chocolate-making experiences. These activities allow producers to sell small quantities of higher value products like chocolate and cocoa-based products directly to tourists. They also function as educational and awareness-raising tools. At the cooperative level, agritourism is described as a long-term opportunity due to the region's high biodiversity and proximity to protected areas (OM). However, its development remains limited by weak infrastructure, poor transport connectivity, and strong seasonality of tourism demand. As one producer noted, "The roads are bad, transport is expensive, and that makes everything more complicated" (OP1). For this reason, agritourism currently functions more as a diversification strategy than as a stable source of revenue (OP1, OM).

From an economic perspective, cooperative membership offers several advantages. These include reduced input costs through collective purchasing, access to machinery and shared infrastructure, and financial support mechanisms that differ from conventional banking services (OM, OP2). At the same time, Osacoop faces internal resource constraints. Limited capital, human resources, and administrative capacity reduce its ability to scale up cocoa production and expand value-added processing activities (OM).

d) External Actors and Governance Environment

The governance environment of cocoa production in the South Pacific region includes interactions with a range of external actors. However, support is generally perceived as

uneven and insufficient (OM, OP1, OP2). Government institutions such as INDER and MAG play a role through the distribution of planting material, technical assistance, and limited training activities. CATIE contributes mainly through the development and dissemination of cocoa clones and knowledge exchange, including farm visits (OM).

Beyond institutional support, a concentration of buyer relations plays a decisive role in market governance. Osacoop currently sells most dried cocoa to one main national buyer (Cocoa Harris), complemented by a small number of minor outlets and local buyers for processed products (OM). Price formation remains largely externally determined through international reference prices, leaving limited room for negotiation at cooperative and producer level (OP2, OM). The manager noted that additional requirements such as certification would only be pursued if buyers provide clear price incentives that at least cover the associated costs, as shifting these costs to producers is not considered viable (OM). While the cooperative and several members hold the national “Bandera Azul” certification, this recognition does not translate into price premiums comparable to international certifications and therefore has limited impact on market bargaining power (OM).

External funding has been particularly important for infrastructure development. This is most visible in European funding that supported the establishment of Osacoop’s chocolate factory (OM). As the cooperative manager explained, “The chocolate plant was built with European Union funds; without that support, it would not have been possible” (OM). INDER has also supported product development and branding initiatives (OM). In addition, sector-specific organisations, such as the national palm oil chamber, provide technical assistance linked to the cooperative’s wider production portfolio. This indirectly supports cocoa production improvement as well (OM).

Despite these forms of support, interviewees emphasised the lack of sustained government investment in the region (OP1, OP2). This is especially visible in weak infrastructure, including poor roads, transport limitations, and restricted market access. As one producer stated, “The roads are very bad… in winter we can hardly get the cocoa out” (OP1). Geographic isolation and long distances to major markets further constrain participation in national and international value chains (OP1, OP2).

Attempts to establish broader producer networks or over-regional cocoa platforms comparable to the well known Plataforma Norte in the northern region have so far remained limited in scope and impact (OM). Overall, Osacoop enables access to institutional resources and funding opportunities that would be difficult to reach for

individual producers (OM, OP1). At the same time, external support remains fragmented and does not sufficiently address the structural constraints of the region (OM, OP2).

e) Cultural Significance and Social Dimensions

Social and cultural dimensions play an important role in shaping self-organisation and production practices in the Osa Peninsula (OP1, OP2, OP3, OM). Producers frequently emphasise values related to environmental stewardship, strong attachment to land, and quality of life, often prioritising these aspects over income maximisation. Several interviewees highlighted the importance of maintaining forest areas, accepting crop losses caused by wildlife, and protecting ecological balance as central elements of their production philosophy. As one producer explained, “Here we live with nature… if an animal eats something, that is part of the balance” (OP3).

Interviewees widely portray Osacoop as a community-based organisation embedded in strong social networks (OM, OP1, OP2). Interviewees often referred to the cooperative as functioning like a family. As the cooperative manager stated, “This cooperative is like a family. People support each other, not only economically but also personally” (OM). Mutual support practices are an important part of this collective identity. These include sharing machinery, exchanging knowledge, and providing financial support in times of need (OP1, OP2, OM). Informal activities such as community fundraising also contribute to social cohesion and strengthen trust among members (OM).

At the same time, interviewees pointed to persistent challenges. These include individualism among some producers, limited long-term vision, and the continuing perception of farmers as economically marginal actors (OP2, OM). Interviewees explained that these dynamics influence trust, shared responsibility, and the continuity of collective engagement within the cooperative (OP2, OM). At the same time, they repeatedly highlighted cooperative membership as a vital source of social stability and shared identity, which sustains collective involvement despite existing tensions (OP1, OM).

f) Challenges, Opportunities, and Future Perspectives

Most frequently mentioned constraints.

Across interviews, producers repeatedly pointed to the region's remoteness and inadequate road infrastructure as major constraints, particularly during the rainy season when transportation becomes difficult (OP1, OP2). Cocoa volumes remain very limited, with only around 25 hectares within the cooperative and small additional areas outside (OP1). Interviewees characterised market access as structurally challenging, as major markets lie far away and high transport costs add further pressure (OP3). They also repeatedly portrayed certification as too costly and only worthwhile if it generates clear returns, while describing Bandera Azul as offering little direct economic benefit (OM, OP3).

Most frequently mentioned opportunities.

At the same time, interviewees highlighted Osacoop as a central enabling structure for producers and the local community regarding, training, post-harvest value addition and market access capacities. (OP2, OM). (OP1, OM). Interviewees repeatedly highlighted value addition through processing as a central opportunity, pointing to existing products, branding initiatives, and the cooperative's industrial capacity (OP1). Cocoa is gaining importance for both the region and the cooperative. It is seen as a "safe" crop compared to palm and offers new value-adding opportunities through recently established processing infrastructure (OP1, OM).

Future-oriented statements, wishes, and plans.

Future perspectives were strongly linked to expanding planted cocoa area, improving access to certification, and strengthening local markets (OP1, OM). Interviewees repeatedly identified value-added processing as a key long-term strategy, yet chocolate volumes remain limited and still require further expansion (OM). Several actors also stressed the need to strengthen internal capacities within Osacoop, particularly in administration and strategic planning, as workload remains concentrated on a few key individuals (OP3, OM). In addition, producers pointed to tourism and direct sales as promising complementary pathways, especially given the region's biodiversity and visitor potential. (OP2, OP3).

The following table synthesises the structural similarities and differences across the three regions, summarising the empirical patterns identified in the results section.

Table 6
Cross-Regional Comparison of Structural Characteristics (Results Synthesis)

Theme	Caribe Sur (Bribri Territory)	Huetar Norte	Pacífico Sur (Osa)
a) Production Structure	Smallholder agroforestry systems; post-Monilia restructuring; limited production scale		
	Culturally embedded Criollo focus; low yield orientation	Mixed varietal strategies	CATIE-clone based; cooperative-linked production
b) Self-Organisation	Locally embedded smallholder initiatives; limited state coordination		
	Fragmented; low formalisation	Network-coordinated; emerging consolidation	Cooperative-centred; formally integrated
c) Market Structure	Small-scale production volumes; sales mediated through buyers; limited direct export integration		
	Predominantly fresh cocoa sales; decentralised post-harvest handling	Increasing shared processing; regional aggregation efforts	Centralised fermentation and chocolate processing; cooperative-mediated sales
d) Governance & Institutional Embedding	Externally influenced market coordination; project-based institutional support; limited crop-specific policy integration		
	Weak institutional consolidation; unstable organisational trajectories	Plataforma Norte as coordination platform; gradual formalisation	Consolidated cooperative governance; structured external partnerships
e) Social and Cultural Embeddedness	Cocoa production embedded in local livelihoods; strong identity-based and environmental attachment		
	Indigenous cultural anchoring; high cultural continuity Ulà mąnẽ̱u̱k (Bribri collective concept)	community-driven, inter-connected initiatives	Cooperative-based collective identity; production framed as regional development strategy

Note. Author's own compilation based on empirical findings presented in Section 5.

As illustrated in Table 6, while all regions share smallholder-based production and mediated market access, their organisational consolidation and governance structures diverge significantly.

6. Discussion

6.1. Regional–Specific Discussion

This discussion brings together the empirical findings from the three regional case studies to explain why collective self-organisation in Costa Rica's fine cocoa sector develops in some contexts but remains fragmented in others. While first discussing each region on its own terms, the analysis then examines cross-regional patterns in how governance structures, market conditions, external support, and social–cultural factors shape collective self-organisation.

6.1.1. Caribe Sur – Bribri Territory in Talamanca

The Bribri Territory in Caribe Sur reveals a structurally paradoxical form of collective self-organisation. On the one hand, cocoa production is deeply embedded in agroforestry systems, cultural identity, and community-based norms. On the other hand, collective organisation remains weak in economic and strategic terms. This gap between social cohesion and economic coordination lies at the core of the region's self-organisation dynamics.

a) Production structure: ecological strength, economic limitation

Cocoa production clearly corresponds to Nair's (1993) agrisilvicultural agroforestry typology. Trees are integrated into diversified plots with plantain, fruit trees and native species, embedding biodiversity and ecological resilience structurally within production (P3; P4). Producers highlighted the maintenance of "Criollo" varieties and natural management without chemicals (P3; P1), aligning with literature on indigenous agroforestry systems prioritising ecological balance over yield maximisation (Dahlquist-Willard et al., 2007; Rodríguez Echavarría, 2020).

However, low volumes significantly constrain upgrading. Harvest quantities between 50–200 kg per cycle (P3; P4) and limited collective fermentation and drying infrastructure (P1; APPTA) prevent reliable entry into speciality markets. Value chain literature stresses that quality differentiation alone is insufficient without aggregation and coordination (Markelova et al., 2009; Ton, 2008). Thus, despite high-quality agroforestry-based production, structural scaling barriers persist in practice.

The opportunity lies in producers' interest in shared drying facilities and collective processing (P1), suggesting that self-organised aggregation could help translate agroforestry quality into stronger market positioning.

b) Self-organisation: strong interest, weak consolidation

The region remains highly individual-producer-based. Several interviewees described past organisational breakdowns and unstable structures (P4; APPTA), and one producer stated that “at the moment there is no organisation… people work individually” (P1). This reflects Ostrom’s (2000) emphasis on trust and institutional stability as preconditions for durable collective action. Where previous organisations collapsed, reputational damage weakens willingness to re-engage.

At the same time, there is clear interest in collective solutions, particularly shared processing infrastructure and renewed training initiatives (P1). This corresponds with bottom-up development theory (Chambers, 1994): collective organisation cannot be imposed but must emerge from perceived practical benefit.

Existing examples such as ACOMUITA and APPTA demonstrate that culturally embedded forms can function. Acomuita’s processing facility and Appta’s existing infrastructure (ACOMUITA; APPTA) show that self-organisation is not rejected per se; rather, legitimacy, leadership, and administrative competence determine sustainability. A major constraint repeatedly mentioned was the lack of specialised administrative and commercial knowledge (P2; APPTA). According to Ostrom (2000), rule-making and monitoring capacities are central design principles. Without managerial expertise, bonding social capital does not translate into institutional robustness.

c) Economy and value addition: dependence through low processing

Economic upgrading remains limited due to low value addition. Most interviewed producers sell fresh cocoa to external buyers (P4), remaining dependent on their price structures. As value chain research shows, producers who remain limited to primary production capture only a small share of total value, since higher margins are realised in processing and commercialisation stages beyond the farm gate (Gereffi et al., 2005; Markelova et al., 2009).

Where fermentation and drying are centralised within self-organisations (Acomuita, Appta), greater buyer choice and relational flexibility emerge. Appta, despite its current constraints, manages dried cocoa sales and maintains some negotiation capacity (APPTA), while Acomuita controls fermentation internally (ACOMUITA). Compared to individual sellers (P4), these organisations demonstrate slightly stronger bargaining positions. This confirms literature arguing that collective post-harvest coordination reduces dependence on intermediaries (Voora et al., 2020).

However, processing capacity alone does not resolve the broader structural constraints shaping market participation. Interview data indicate that price volatility and limited market transparency further constrain strategic upgrading. Producers reported reacting primarily to short-term price differences between buyers (P4) and expressed limited knowledge of international price formation (P1; P2). As value chain research shows, incomplete price transmission and asymmetric information reduce producers' ability to plan collectively and capture value beyond immediate transactions (FAO, 2018; Rogna, 2021). In the Bribri case, this contributes to reactive selling behaviour rather than long-term collective market strategies.

Thus, strengthening shared processing is not merely a technical issue but directly linked to collective strategic capacity and market power. However, without improved market information and coordination, value addition alone is unlikely to translate into long-term upgrading.

d) Governance: externally structured markets

Market coordination in the Bribri Territory is dominated by external actors (Trobanex; Cooproxa), which structure purchasing, logistics, and certification access (P4; COOPROXA). Producers operating without collective structures portrayed themselves as reacting to price fluctuations rather than shaping them (P4). Gaventa's (2006) concept of "invited spaces" is useful here: producers participate in markets structured by external actors rather than controlling "claimed spaces" of coordination.

Self-organisations like Acomuita and Appta represent emerging claimed spaces, as they manage processing and partial commercialisation (ACOMUITA; APPTA). However, as long as these organisations remain small-scale and commercially dependent (e.g. APPTA's reliance on a single buyer), their capacity to transform "invited" market participation into genuine bargaining power remains limited.

Beyond market-dominating buyers, multiple external support actors shape the governance environment, including NGOs, state institutions, universities, and international partners (APPTA; ACOMUITA; P1; P4). While these actors provide technical assistance, certification support, and capacity-building activities, interview data suggest that such support is often project-based and discontinuous. As one producer stated, "I would like that at some point an organisation would return again… that they bring us training" (P1), indicating the temporary nature of many initiatives. Although Trobanex facilitates territorial organic certification and technical assistance (P4), and Cooproxa provides logistical infrastructure (P4; COOPROXA), these forms of support

remain closely tied to market participation rather than long-term organisational strengthening.

From an institutional perspective, this reflects what development literature describes as fragmented governance environments, where multiple actors intervene without generating sustained institutional consolidation (Ostrom, 2000). In the Bribri case, historical instability within APPTA and certification disruptions (APPTA) further limited the capacity to absorb and institutionalise external support. Structural constraints such as geographic isolation, weak infrastructure (P4), and restricted access to credit under indigenous land law (APPTA; ACOMUITA) additionally reduce the long-term effectiveness of support measures. As a result, external assistance contributes to maintaining production but does not automatically translate into strengthened, autonomous self-organisation.

e) Social and cultural dimensions: bonding capital as foundation

The region exhibits very strong bonding social capital (Woolcock, 1998). Community cohesion, shared norms, and culturally embedded cooperation (Ulà m̲anə̲u̲k) were repeatedly emphasised (P1; P3). Producers linked cocoa to family traditions and collective identity (P1; P3), and Acomuita framed its activities explicitly in terms of community empowerment (ACOMUITA).

Yet, bridging social capital remains weak. Connections to national networks, certification systems, and diversified buyers are limited. Geographic isolation, weak infrastructure, and continued dependence on intermediaries constrain the development of such external linkages (P4; APPTA). Producers also expressed limited transparency regarding international price formation (P1; P4). Literature stresses that economic upgrading requires both bonding and bridging ties (Woolcock, 1998; Markelova et al., 2009). In the Bribri Territory, bonding capital stabilises small-scale production but does not automatically enable broader market integration.

Synthesis

Caribe Sur, Talamanca illustrates a culturally grounded but economically fragile pathway of collective self-organisation. Cocoa production is deeply embedded in agroforestry systems, community cohesion, and indigenous identity, creating strong potential for bottom-up rural development. Yet cooperation remains primarily socially embedded rather than organisationally consolidated. Low value addition, fragmented organisational histories, and persistent administrative capacity gaps constrain the translation of ecological quality into stable economic coordination.

Collective action is sustained through strong bonding capital and shared agroecological values, yet lacks the bridging capacities and managerial infrastructure required for durable market coordination. The central regional challenge therefore lies not in generating collective willingness, but in translating cultural cohesion into stable institutional and economic structures. Without strengthened aggregation mechanisms and strategic market integration, self-organisation risks remaining socially resilient but economically marginal. In this sense, the Bribri Territory in Caribe Sur demonstrates that collective identity can provide a powerful foundation for cooperation, yet only becomes transformational when complemented by organisational consolidation and sustained bridging linkages.

6.1.2. Región Huetar Norte

In the Northern region, interconnected local initiatives underpin collective self-organisation. Although cocoa production remains limited in scale and fragmented across smallholders, recurring exchange, shared processing efforts, and the growing role of Plataforma Norte have begun to structure cooperation beyond individual farms (ASOPAC; ITAMU; MALEKU).

a) Production structure: recovery and diversification after Monilia

In Huetar Norte, the long-term impacts of Monilia have profoundly influenced cocoa production, prompting many producers to abandon cocoa and shift toward cattle, rice, and pineapple (MALEKU; AMECUP). This history explains why cocoa has re-emerged only gradually and remains characterised by fragmented smallholder structures and low production volumes (ITAMU; AMECUP).

At the same time, interview data show that production is largely embedded in diversified agroforestry systems, combining cocoa with Musaceae and fruit trees (AMECUP; MALEKU). This corresponds to Nair's (1993) agroforestry typology and supports ecological resilience and shade-based production strategies.

Renewed interest in cocoa is linked to rising prices and improving post-harvest knowledge, particularly in fermentation and drying (ITAMU; AMECUP). Interviewees also reported a gradual diversification of varieties, introducing Trinitario and grafted planting material derived from CATIE alongside traditional Criollo varieties (ITAMU; MALEKU). This indicates a slow process of production recovery, where cocoa functions mainly as a diversification crop rather than a full commercial shift.

b) Self-organisation: collective action through coordination spaces

Self-organisation in Huetar Norte is less defined by a single dominant cooperative structure and more by overlapping initiatives and flexible forms of cooperation (ASOPAC; AMECUP; ITAMU; MALEKU). This interconnectivity creates a regional environment in which knowledge exchange and mutual support function as informal coordination mechanisms.

The most significant development is Plataforma Norte, which has become a recurring coordination space linking producers, processors and institutions (ASOPAC; ITAMU). From a collective action perspective, this represents a key mechanism for overcoming fragmentation: rather than requiring full organisational membership or strong formalisation, the platform creates repeated interaction, shared learning processes and joint agenda-setting. Ostrom (2000) argues that stable collective action depends on repeated communication and institutional rules that reduce uncertainty and build trust. Plataforma Norte appears to fulfil precisely this function by institutionalising exchange beyond individual projects and personal networks.

A second important insight is that successful organisational initiatives in Huetar Norte are closely linked to functional clarity. Amecup demonstrates how internal role distribution and shared processing responsibilities can translate cooperation into stable value creation (AMECUP). This supports the literature on producer organisations arguing that collective action becomes durable when incentives are clearly structured and benefits are visible at household level (Markelova et al., 2009).

At the same time, the region also highlights the structural vulnerability of voluntary cooperation. Ongoing constraints related to time, mobility, and resources restrict participation, especially among small-scale and indigenous producers (MALEKU; ASOPAC). However, this does not simply indicate “weak organisation”; it reveals a central collective action problem: transaction costs remain high, and organisational capacity is unevenly distributed. In this context, Plataforma Norte becomes analytically important not only as a success story but as a mechanism that lowers coordination costs and stabilises cooperation despite limited formal resources.

c) Economy and value addition: upgrading through local value retention

In Huetar Norte, producers approach economic upgrading with a pragmatic awareness of scale limitations. They generally consider export markets out of reach due to administrative requirements, certification costs, and minimum volume thresholds (ITAMU). This reflects value chain research showing that upgrading is often blocked by

entry barriers and governance structures that favour actors with capital, logistics, and bureaucratic capacity (Gereffi et al., 2005; Markelova et al., 2009).

Instead, the region's upgrading pathway is oriented toward local value addition. This strategy is reinforced by growing national demand, driven by an expanding artisanal chocolate sector and increasing interest in differentiated quality products. Initiatives such as Amecup and Itamú have contributed to strengthening fermentation, drying and processing capacities (AMECUP; ITAMU). The key insight here is that value addition is not treated as an individual entrepreneurial step, but as a collective strategy to retain value locally and stabilise producer income. This corresponds with the literature arguing that processing-based upgrading can reduce dependence on intermediaries and strengthen local bargaining positions, particularly where market access is structurally mediated (Ton, 2008; Voora et al., 2020).

At the same time, the persistence of low volumes limits the extent to which processing can scale into broader commercial expansion. This creates a typical smallholder upgrading dilemma: Value addition can increase income per unit of cocoa, but does not automatically resolve the structural constraint of insufficient aggregation. Therefore, economic upgrading in the Northern Zone is best interpreted as incremental and adaptive rather than transformational, focusing on stabilisation and differentiation rather than rapid market expansion.

d) Governance: participatory structures and fragmented institutional support

Huetar Norte is characterised by a relatively dense governance environment involving universities, agricultural institutions and development actors (ASOPAC; ITAMU). Yet interview data indicate that institutional support remains uneven, shaped by infrastructural limitations and varying organisational capacities to access programmes and funding (MALEKU; AMECUP). This reflects broader development governance critiques emphasising that rural support often remains project-based and selective, reinforcing inequality between better-connected organisations and marginalised producers (Markelova et al., 2009; Ton, 2008).

Interview data further suggest that institutional support functions less as a stable governance framework and more as a fragmented set of opportunity structures. While training and technical assistance are available through universities and public institutions, access depends strongly on organisational capacity, continuity, and proactive engagement (AMECUP; MALEKU). In line with collective action theory, external support can strengthen self-organisation only when local actors are able to integrate knowledge,

secure follow-up resources, and translate short-term projects into durable organisational routines (Ostrom, 2000; Markelova et al., 2009).

Plataforma Norte represents an important governance innovation because it creates a participatory interface where institutional engagement becomes increasingly linked to locally defined priorities (ASOPAC; ITAMU). Although initially initiated through institutional actors, the platform has successfully gradually shifted toward a more producer-led coordination space (ASOPAC; ITAMU). This supports Chambers' (1994) argument that sustainable rural development depends on locally grounded decision-making rather than externally imposed agendas. In this sense, the platform functions not only as a technical coordination tool but as a participatory governance mechanism that strengthens producer voice and reduces dependence on externally driven initiatives. At the same time, it also expands bridging capacity by linking local producers with institutions, markets and technical expertise, thereby extending regional networks beyond the community level (ASOPAC; ITAMU).

However, the platform's long-term effectiveness depends on whether it can secure continuity and resources without losing its inclusive and producer-led character (ASOPAC). Formalisation may be necessary to stabilise coordination and access funding, yet it also entails governance risks: increased institutionalisation can introduce bureaucratic barriers and weaken local ownership, particularly for smaller and indigenous producers (Chambers, 1994; Ostrom, 2000). This case thus illustrates that participatory governance is not a fixed solution but an evolving balancing process between institutional consolidation and embedded, inclusive self-organisation.

e) Social and cultural dimensions: sustainability values as boundary condition

Cocoa production in Huetar Norte is embedded in strong sustainability-oriented values and cultural meanings. Among Maleku producers, commercialisation is explicitly framed as acceptable only if compatible with ecological balance and community principles (MALEKU). This suggests that cocoa functions not only as an economic crop but as a symbol of identity and responsible land use.

From a social capital perspective, such shared norms strengthen bonding ties and provide legitimacy for collective initiatives (Woolcock, 1998). Yet they also operate as a boundary condition: self-organisation is supported as long as it does not shift toward intensive commercialisation that threatens cultural or ecological priorities (MALEKU; AMECUP).

At the same time, regional initiatives such as Asopac and Plataforma Norte contribute to rebuilding a broader cocoa culture by strengthening social identity, exchange among producers, and shared sustainability narratives (ASOPAC). These processes reinforce bonding social capital and stabilise cooperation through a renewed collective understanding of cocoa as a regional project. In line with participatory development theory, such locally embedded ownership increases legitimacy and sustained engagement in collective initiatives (Chambers, 1994; Ostrom, 2000).

Synthesis

Huetar Norte demonstrates a regionally embedded pathway of collective self-organisation that is strengthened through participatory coordination and incremental processing-based upgrading. Cocoa production remains constrained by low volumes and post-Monilia recovery trajectories, yet diversified agroforestry systems provide a resilient ecological foundation.

The central driver of self-organisation in this region is the emergence of Plataforma Norte as a recurring coordination space that institutionalises interaction, reduces fragmentation and strengthens local connectivity. This regular coordination reduces uncertainty and supports cooperation even under limited formal capacity. Overall, the region illustrates that collective self-organisation does not necessarily take the form of a single large cooperative, but can function as an interlinked system of initiatives that stabilises coordination under persistent structural constraints.

6.1.3. Pacífico Sur – Osa Peninsula

The Osa Peninsula follows a distinct pathway of collective self-organisation, as strong cooperative consolidation contrasts with the relatively limited importance of cocoa within regional livelihoods. Cocoa remains economically secondary in a land-use system dominated by palm oil, livestock and conservation-oriented forest systems (OP1; OM). This context is important for interpreting self-organisation: collective structures in Osa are not driven by cocoa as a primary livelihood necessity, but rather by institutional capacity and strategic cooperative leadership.

a) Production structure: cocoa embedded in diversification and conservation logics

Interview data indicate that cocoa production in Osa is embedded in diversified farm systems and often treated as a complementary activity rather than a specialised production focus (OP1; OP3). This corresponds to Nair's (1993) agrisilvicultural typology, where cocoa functions within multi-crop systems and shade-based land management.

However, the key insight is that ecological suitability does not automatically translate into upgrading dynamics. In Osa, cocoa's secondary economic role has long limited individual investment incentives but reduced pressure to intensify production. At the same time, cocoa is gaining relevance as a comparatively stable diversification crop aligned with conservation-oriented land-use strategies. Value chain literature suggests that upgrading is most likely when production specialisation becomes economically central and actors face strong incentives to invest in quality control and scaling (Gereffi et al., 2005; Markelova et al., 2009). In Osa, expansion therefore depends less on household-level necessity and more on collective coordination mechanisms that can strengthen a still marginal, but increasingly strategic crop within the regional economy.

b) Self-organisation: cooperative institutionalisation as collective action solution

Self-organisation in the Osa Peninsula is strongly centred around Osacoop, which structures production support, processing, and market integration for its members (OP1; OP2; OM). Through defined membership rules, assemblies, and centralised coordination, the cooperative provides an institutionalised framework for collective decision-making (OM).

From a collective action perspective, this reflects Ostrom's (2000) argument that durable cooperation requires institutional stability, rule clarity, and mechanisms that reduce uncertainty. Osacoop appears to provide precisely these enabling conditions. Rather than relying on informal coordination, the cooperative institutionalises collective routines and thereby lowers the transaction costs of cooperation. Osacoop is a successful example for producer organisations that can enable market participation by substituting for individual capacity gaps and coordinating functions that are otherwise inaccessible to dispersed smallholders Markelova et al., 2009).

A central strength of Osacoop's self-organisational structure lies in its high degree of institutional consolidation. The cooperative provides a stable arena for participation, collective rule-making, and coordinated implementation.This reflects Uphoff's (1993) argument that grassroots organisation becomes sustainable when informal cooperation evolves into durable institutional forms that structure responsibilities and decision-making beyond short-term project cycles. In Osacoop, this is visible in clearly defined roles, committee structures, and regular training activities (OM; OP1). Regular workshops and technical capacity-building initiatives reinforce collective routines and clarify responsibilities, thereby strengthening the cooperative's organisational continuity beyond ad hoc coordination. Osacoop therefore functions not merely as a marketing

entity, but as a locally anchored institution that enables continuous collective action through structured routines, organisational continuity, and internal coordination capacity.

At the same time, the cooperative's strong institutionalisation also produces typical organisational vulnerabilities identified in the literature on producer organisations. Ton (2008) highlights that cooperatives often face internal challenges related to leadership dependency, uneven participation, and increasing professionalisation demands. In Osacoop, decision-making is formally participatory and embedded in assemblies and committee structures (OM). However, operational coordination and administrative workload remain concentrated among a limited number of key actors (OP3; OM). This creates a structural tension: while formalisation stabilises collective action and integrates members into shared responsibilities, long-term resilience depends on the cooperative's ability to continuously distribute tasks, renew leadership capacities, and prevent functional overload. In this sense, Osacoop illustrates that strong self-organisation is not a fixed achievement, but an ongoing institutional process shaped by internal governance dynamics.

c) Economy and value addition: upgrading through collective post-harvest control

Osacoop coordinates fermentation, drying and quality management, enabling producers to access formalised market channels beyond farm-gate transactions (OM). This reflects a core insight of value chain literature: upgrading in fine cocoa markets is not primarily determined by ecological production potential, but by the capacity to ensure standardised post-harvest processing and consistent quality control (Gereffi et al., 2005; Ton, 2008). By collectively managing these stages, Osacoop reduces typical smallholder constraints linked to fragmentation and limited individual infrastructure, allowing dispersed producers to meet buyer requirements more reliably.

This upgrading trajectory is further reinforced through collective asset-building. Osacoop has invested in processing infrastructure, including a chocolate facility supported by European development funding (OM). In line with rural value chain research, such investments illustrate how upgrading beyond primary production depends on institutional capacity and strategic partnerships, particularly where processing facilities and certification-related requirements generate high entry costs (Devaux et al., 2018; Kusters et al., 2017). In the Osa case, external support appears to have strengthened rather than substituted local organisation. The cooperative secured European funding for the establishment of its chocolate facility, while simultaneously investing in fermentation centres, drying infrastructure, and additional processing facilities through its own revenues (OM). This combination of externally mobilised resources and internally

generated reinvestment highlights not only institutional capacity, but also a degree of financial consolidation that allows Osacoop to maintain and expand its upgrading trajectory beyond short-term project dependency.

Nevertheless, value addition through chocolate production remains at an early stage and has not yet replaced dried bean sales as the dominant commercial output (OM). Recent investments in processing infrastructure have opened new strategic opportunities for expanding local manufacturing capacity. This situation corresponds to what value chain literature describes as incremental upgrading, where new processing stages are gradually integrated as organisational capacity and production volumes increase (Gereffi et al., 2005; Devaux et al., 2018). In this sense, Osacoop's chocolate facility represents a promising step toward higher value capture, supported by both external funding and internally generated reinvestment. The current trajectory suggests potential for further expansion as technical skills, market channels, and production volumes consolidate over time.

At the same time, interviews point to an underexploited local market potential. Cocoa products are largely commercialised outside the region, particularly in the main consumption centres such as San José, while sales within the Osa Peninsula remain limited despite growing tourism and hospitality activity (OM; OP2). This reflects a common challenge in peripheral rural regions: remoteness and weak infrastructure increase transaction costs and favour established export channels over local market diversification (Ton, 2008). Yet niche-based local markets and agritourism can provide important buffering mechanisms against price volatility and export dependency (Kusters et al., 2017). In the Osa case, strengthening linkages with local supermarkets, hotels, and tourism actors could therefore increase regional value capture and enhance economic resilience without requiring immediate large-scale export expansion. Given the region's tourism-oriented economy and proximity to protected biodiversity areas such as Corcovado National Park, Osa is geographically well positioned to develop niche-based local chocolate markets and agroforestry tourism linkages. Even beyond cocoa markets, tourism could become a parallel income stream that strengthens the cooperative's financial stability, reduces dependence on volatile export channels, and reinforces economic resilience (OP3, OM).

The combination of emerging processing capacity and untapped local demand suggests that the cooperative's upgrading trajectory is still unfolding rather than reaching its limits.

d) Governance: strategic partnerships and buyer-driven market coordination

In Osa, selective but strategically relevant external support contributes to the governance environment. Osacoop collaborates with public institutions such as MAG and INDER through technical assistance and training activities. International partnerships have provided infrastructure-related funding, most notably through European support for the cooperative's chocolate facility (OM). Rather than operating as an externally driven project outcome, this pattern reflects a locally embedded organisation that is able to absorb external inputs and translate them into collective upgrading processes. In line with bottom-up development perspectives, such institutional linkages are most effective when they strengthen existing local structures and reinforce organisational autonomy instead of replacing local coordination capacities (Chambers, 1994; Uphoff, 1993). Osacoop's governance structure is formally participatory, with decision-making embedded in assemblies and committee-based responsibilities (OM). This corresponds to participatory governance approaches in the literature, which emphasise that inclusive decision-making and locally legitimate rule-setting enhance accountability, ownership, and long-term organisational stability (Ostrom, 2000; Chambers, 1994). Osacoop's ability to channel external resources into locally managed collective outcomes illustrates the effectiveness of this model and helps explain the cooperative's relative organisational success.

At the same time, reliance on a small group of buyers continues to constrain market governance. The cooperative structures cocoa commercialisation largely through one dominant buyer relationship, complemented by a limited number of smaller market outlets (OM). While this arrangement currently provides stability and reliable market access, it also reflects a typical power asymmetry highlighted in value chain literature, where smallholder organisations remain indirectly dependent on externally set reference prices and global price fluctuations (Gereffi et al., 2005; Ton, 2008). Osacoop partly mitigates this vulnerability through collective fermentation and coordinated commercialisation, which strengthens volume aggregation and enables more consistent quality delivery (OM). Governance stability in this context is thus closely tied to Osacoop's ability to institutionalise coordination and sustain stable buyer linkages despite externally driven price volatility.

However, interviewees also suggest that organisational strengthening generates new governance demands. Certification ambitions, export-related administrative requirements, and increasing infrastructure management have raised internal complexity (OM). This reflects Ostrom's (2000) insight that institutional evolution changes the nature

of collective action problems: once basic cooperation is stabilised, the main challenges shift toward professionalisation constraints, leadership workload, and administrative capacity. External support thus becomes double-edged. While technical training and project-based funding strengthen Osacoop's upgrading potential, they may simultaneously reinforce growth expectations that exceed local management capacities. Sustainable self-organisation therefore depends not only on access to external resources, but on the cooperative's ability to balance expansion strategies with internal organisational resilience.

Overall, Osacoop's governance model reveals a central paradox of cooperative upgrading in peripheral regions: market stability is currently achieved through consolidated coordination and strong buyer relations, yet this stability remains structurally fragile because it is tied to limited market diversification and externally determined price dynamics.

e) Social and cultural dimensions: cooperative identity as produced social capital

Unlike regions where cocoa is closely tied to indigenous identity, social cohesion in Osa is primarily generated through cooperative participation. One interviewee characterised the cooperative as operating "like a family" (OP2). This suggests that bonding social capital is institutionally produced rather than culturally inherited. In Woolcock's (1998) framework, Osacoop reinforces bonding ties through repeated interaction, shared responsibilities, and collective routines, creating trust and mutual commitment among members.

At the same time, the cooperative maintains outward-oriented linkages to buyers and support institutions (OM), illustrating the complementary role of bridging social capital. Together, these dimensions indicate that social capital in Osa is not simply a pre-existing cultural asset, but an outcome of institutional consolidation.

Bonding cohesion is strengthened by a strong sense of land ownership and environmental attachment, as producers frequently emphasise conservation values and a commitment to biodiversity protection as part of their farming identity (OP3; OM). This shared environmental ethos functions as an additional normative foundation for cooperation, reinforcing local ownership and legitimacy as key conditions for sustained collective organisation (Chambers, 1994; Uphoff, 1993). In this sense, Osacoop demonstrates how collective organisation can actively generate cohesion, shared identity, and long-term engagement within self-organisational structures.

Synthesis

In the Osa Peninsula, strong institutional consolidation, centralised post-harvest coordination, and selective external integration underpin a cooperative-led pathway of collective self-organisation. Cocoa remains economically secondary within diversified land-use systems, yet the cooperative provides an institutional mechanism that compensates for fragmented production and enables market participation through shared infrastructure and coordinated upgrading.

The central regional insight is that self-organisation can succeed through formal cooperative institutionalisation. However, this success shifts collective action challenges toward organisational sustainability: maintaining leadership capacity, managing administrative complexity, and balancing expansion ambitions with internal stability. In this sense, Pacífico Sur demonstrates that collective self-organisation is not a fixed achievement but a dynamic governance process shaped by evolving institutional demands.

6.2. Comparative Discussion across Regions

The following section shifts from regional case analysis to a cross-regional comparison in order to identify structural patterns of collective self-organisation within Costa Rica's fine cocoa sector. By analysing common constraints and divergent organisational responses, the discussion seeks to clarify national characteristics, shared challenges, and emerging potentials for bottom-up coordination in Costa Rica's cocoa sector.

a) Sectoral Context and Production Characteristics

Across all three regions, Costa Rica's cocoa production is best characterised as low-volume fine cocoa embedded in diversified agroforestry landscapes rather than as a specialised commodity system. This represents a structural feature across the sector that defines its development context: limited scale restricts upgrading, while ecological differentiation creates enabling conditions.

Agroforestry is not a niche strategy but the dominant production logic across the sector. Cocoa is typically integrated into diversified multi-strata systems combining Musaceae, fruit trees, and native or timber species, corresponding to Nair's (1993) agrisilvicultural typology. Production is structurally embedded in biodiversity-rich landscapes that prioritise shade management, resilience, and diversification over yield maximisation. This aligns with agroforestry research emphasising the ecological stability, carbon storage capacity, and multifunctionality of shaded cocoa systems (Somarriba et al., 2013;

Jagoret et al., 2011). Costa Rica's fine cocoa sector therefore rests on an environmentally robust production foundation rather than an intensification model.

At the same time, the cross-regional evidence reveals a structural "sustainability paradox." Although production systems are largely low-input and biodiversity-oriented, ecological quality does not automatically translate into market power or scalable supply. Harvest volumes remain small and dispersed, limiting aggregation, consistent quality control, and reliable delivery. Value chain research demonstrates .that quality- and sustainability-based differentiation alone does not translate into improved market positioning without aggregation and coordination capacity (Kaplinsky & Morris, 2001; Markelova et al., 2009). Even where producers emphasise Criollo varieties and environmental management, the absence of scale constrains their ability to leverage these attributes strategically.

Overall, Costa Rica's cocoa sector is defined by agroforestry-based differentiation under persistent scale constraints—an ecologically strong production system with limited capacity for volume-driven competitiveness. The national challenge is therefore not ecological sustainability, but the structural conversion of ecological assets into coordinated market advantage.

b) Collective Self-Organisation and Producer Positioning

Costa Rica's fine cocoa sector follows three distinct but structurally related pathways: culturally embedded cooperation (Caribe Sur), network-based coordination (Huetar Norte), and cooperative institutionalisation (Pacífico Sur). These are not isolated models. Together, they reflect a national sector characterised by small-scale production, dispersed actors, and limited aggregation capacity. Under such conditions, collective organisation becomes less a strategic option than a structural necessity for market positioning.

Across regions, collective initiatives emerge primarily as responses to fragmentation. Producers operate at small scale and face infrastructural and logistical constraints. In this context, organisations take on functions that individual farmers cannot fulfil alone: coordinating fermentation and drying, pooling information, negotiating with buyers, or facilitating access to material and training. This aligns with Markelova et al. (2009), who argue that collective organisation becomes vital once individual producers lack the capacity to meet market requirements alone.

However, the comparative findings indicate that the effectiveness of these structures depends less on their formal status and more on their internal capacity. In the Bribri

Territory in Caribe Sur, strong community cohesion and shared cultural norms create willingness to cooperate, yet organisational instability and limited administrative expertise constrain long-term consolidation. In contrast, in Huetar Norte, the similarly informal structure of Plataforma Norte has reduced fragmentation and created shared regional agendas, although engagement remains partly voluntary and resource-dependent. This contrast indicates that informality is not the decisive weakness; rather, Plataforma Norte functions more effectively because it institutionalises repeated interaction and shared agenda-setting, whereas Talamanca lacks comparable continuity and coordination initiatives. In Pacífico Sur, Osacoop demonstrates how defined roles, centralised processing, and regular assemblies can stabilise collective action, while simultaneously generating new managerial pressures linked to expansion and certification.

These patterns confirm Ostrom's (2000) argument that trust and shared norms are necessary but not sufficient for durable collective institutions. Where rule clarity, role distribution, and financial management are institutionalised, cooperation becomes more stable. Where these elements remain informal or concentrated in a few individuals, organisations remain vulnerable. A recurring cross-regional feature is the concentration of administrative and commercial knowledge in a small number of key actors. This reflects Ton's (2008) observation that producer organisations often struggle not with motivation, but with professional capacity.

Nationally, the sector is therefore characterised by hybrid and evolving organisational forms. Platforms, associations, and cooperatives coexist and gradually assume coordination functions. Yet institutional depth remains uneven. Collective self-organisation in Costa Rica is not absent, but incomplete: strong in social cohesion, increasingly present in coordination, but still limited in managerial and strategic capacity.

Across regions, differences in producer positioning ultimately reflect differences in institutional depth: where cooperation is structurally embedded through clear roles, routines, and accountability, it stabilises; where it remains loosely coordinated, it remains vulnerable.

Figure 4 visualises this structural variation identified across regions. Rather than representing fixed organisational categories, the spectrum highlights differences in institutional consolidation and collective control over commercialisation. It illustrates that self-organisation in Costa Rica operates along a continuum: from loosely coordinated, culturally embedded initiatives to more formalised, functionally differentiated cooperative structures. The positioning makes visible that stability depends on the depth of institutional routines and shared coordination mechanisms.

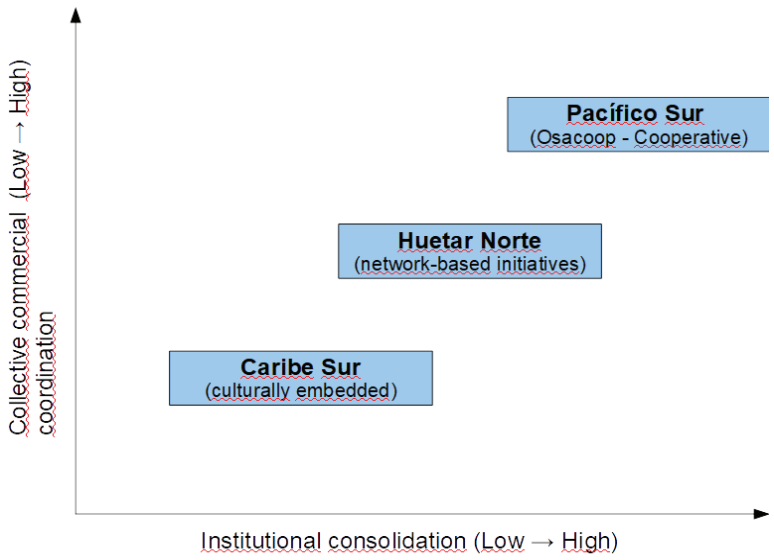

Figure 4
Spectrum of Collective Self-Organisation in Costa Rica's cocoa sector

Note. Author's analytical classification based on interview findings.

c) Economic Dimensions of Collective Self-Organisation

A cross-regional comparison shows that economic sustainability in Costa Rica's fine cocoa sector depends less on "market access" in general and more on whether collective structures can perform key economic functions: aggregating volumes, stabilising quality, and reducing transaction costs that smallholders cannot carry individually.

A key commonality across regions is that economic upgrading depends on whether collective structures control post-harvest processing. The decisive threshold is fermentation and drying: they determine whether cocoa is sold fresh at low prices or enters higher-value channels. The documented price gap—2.57–2.97 USD/kg for fresh cocoa versus up to 8 USD/kg for fermented and dried beans (Figure 5)—shows that the first major step in value capture occurs once producers control fermentation and drying.

While further processing can generate additional value, access to these downstream stages typically depends on having fermented and dried beans in the first place.

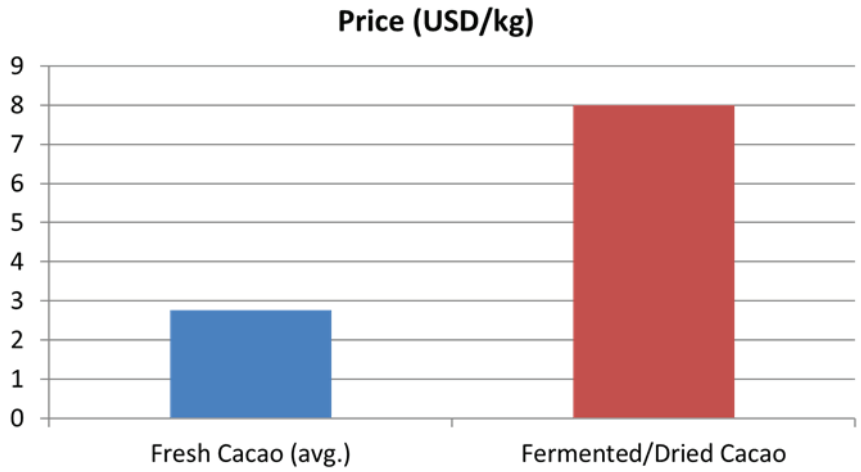

Figure 5
Price Difference: Fresh vs. Dried Cocoa (USD per kg)

Note: Fresh cocoa price range 2.57–2.97 USD/kg; fermented/dried cocoa up to 8 USD/kg.
Source: Author's interviews (Participant P4, October 2025).

This is consistent with national trade patterns: while processed cocoa products account for export values comparable to dried beans despite substantially lower volumes (Table 2), most cocoa is still exported as beans. Interview data further indicate that smallholder producers primarily participate in primary production and rarely control downstream processing activities. Although value-adding processing takes place at the national level, limited capital, insufficient infrastructure, administrative capacity gaps, and certification requirements structurally restrict access to these stages. Thus, higher-value processing remains present but not broadly accessible across the sector.

This reinforces that a decisive upgrading step lies in gaining collective control over post-harvest processing. This dynamic is particularly visible in Pacífico Sur, where the cooperative Osacoop demonstrates how collective control over processing can enable access to differentiated markets. In the other regions, similar patterns emerge wherever producer groups coordinate fermentation and drying or institutionalise these functions within cooperative structures. Where such coordination is weak or absent, producers remain tied to lower-value sales and dependent on intermediaries. This confirms Ton's (2008) argument that upgrading depends on self-organisational coordination capacity rather than on production alone. Nationally, the core economic function of self-organisation is therefore control over post-harvest stages. Without it, producers remain structurally confined to low-value market positions.

A second structural element emerging across regions is the interaction between low production scale and collective viability. Costa Rica produced only around 1,000 tonnes of cocoa in 2024, compared to 5.23 million tonnes globally (Table 1). Yields averaged 128.5 kg/ha—far below the global average of 475.3 kg/ha (Table 1). These figures illustrate that collective structures operate under conditions of structural scarcity. Low and dispersed volumes reduce the economic base on which shared infrastructure depends. Fermentation centres, transport coordination, quality control, and certification management all involve fixed organisational costs. When these costs must be covered through very small volumes, per-unit expenses increase sharply, undermining the financial stability of collective structures. From a value-chain perspective (Kaplinsky & Morris, 2001), this reflects a classic scale constraint: upgrading requires coordination and functional specialisation, but both depend on sufficient throughput to sustain them economically. Under low-density production, collective organisation becomes more necessary—yet simultaneously harder to finance and stabilise.

Certification represents a third cross-regional binding constraint linking market governance and organisational capacity. Osacoop's certification ambitions, APPTA's historical instability, and Huetar Norte's cautious export orientation all illustrate that certification is not merely a sustainability tool but a major administrative threshold. Fixed audit and compliance costs weigh heavily under low-volume conditions. As ICCO (2012) and Voora et al. (2020) argue, certification opens access to sustainability-differentiated markets, but only for producers who can sustain the required administrative and financial capacitiy. Where collective capacity is limited, smallholders remain excluded from premium channels—even when their production is sustainable and of high quality. In Costa Rica, this creates a structural mismatch between strong agroforestry-based production and limited organisational ability to convert it into certified price premiums.

Finally, the regional discussions indicate that even successful post-harvest coordination does not eliminate structural vulnerability. Osacoop demonstrates that consolidated processing can stabilise market access, yet dependence on limited buyers persists. In the Bribri Territory in Caribe Sur, external intermediaries continue to shape price formation. Rogna (2021) highlights that cocoa prices remain anchored to global market dynamics dominated by large producing regions. Costa Rica's marginal global scale reinforces this asymmetry. Fieldwork coincided with historically high prices, yet income improvements largely reflected global supply conditions rather than strengthened local bargaining power. This underscores a central national characteristic: collective self-organisation in Costa Rica can improve value capture per unit, but it operates within externally determined price structures.

The findings suggest that collective self-organisation can partially mediate this exposure. By institutionalising fermentation, drying, and downstream value addition, collective structures expand the share of value captured locally and create greater flexibility in sales channels. In this sense, post-harvest control emerges not only as the main upgrading leverage point, but also as the most realistic pathway through which self-organisation can strengthen economic resilience under externally structured price dynamics.

The central economic challenge of collective self-organisation in Costa Rica is therefore not the absence of quality potential, but the difficulty of institutionalising upgrading functions under persistent low scale. Where post-harvest control, certification capacity, and aggregation routines can be stabilised, self-organisation becomes an important foundation for resilience within an externally governed market regime.

d) External Actors and Governance Environments

Figure 6 provides a schematic overview of the governance constellation within which these regional dynamics unfold.

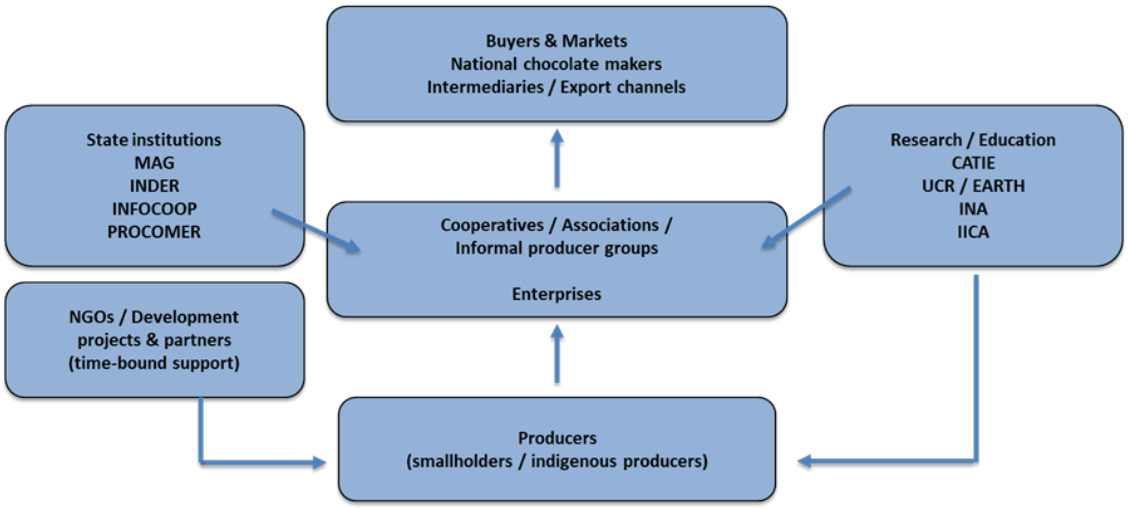

Figure 6
Actor Map of Costa Rica's Fine Cocoa Value Chain

Note. Author's own illustration based on empirical findings and institutional analysis

A central cross-regional governance pattern is the structural dependence of Costa Rica's smallholder cocoa producers on intermediaries for market access. Individual farmers rarely reach end markets directly. However, the comparison shows that collective organisations can partially internalise intermediary functions. Cooperatives such as Osacoop and Amecup increasingly manage aggregation, fermentation, quality control, and buyer coordination themselves.

From a global value chain perspective (Gereffi et al., 2005), this reflects a limited but significant shift within a buyer-driven governance structure. While price formation and standards remain externally anchored, collective organisation enables producers to move from atomised suppliers to coordination nodes with partial control over commercial functions. The decisive governance difference therefore lies not in direct market access, but in whether smallholders collectively become intermediaries of their own production. Where this occurs, dependency is reduced; where it does not, producers remain confined to externally defined market terms.

A second governance dimension concerns access to institutional support. Across regions, public actors such as MAG, INDER, and universities are present, yet training, funding, and technical assistance are rarely accessed individually. Instead, support is typically channelled through collective structures. Producer organisations therefore function as governance nodes linking smallholders to state and research actors. This supports Uphoff's (1993) argument that grassroots organisations become indispensable intermediaries where public institutions alone cannot ensure effective rural coordination. The contrast is visible in Osacoop's ability to mobilise long-term partnerships and funding, while more fragmented settings such as Talamanca remain less consistently integrated into institutional support flows. Nationally, institutional access is therefore filtered through collective organisational capacity.

Beyond access itself, the quality of institutional engagement differs. In some contexts, support remains project-based and discontinuous, producing short-term capacity gains without long-term consolidation. This resembles Gaventa's (2006) "invited spaces", where participation is externally structured and fades once funding ends. In contrast, Huetar Norte illustrates how producer-led coordination through Plataforma Norte increasingly functions as a "claimed" governance arena, enabling agenda-setting and continuous interaction with institutions. Governance becomes durable only where self-organisation converts external inputs into institutionalised routines and locally controlled decision-making.

Internal governance within Costa Rica's producer organisations is predominantly participatory. Across regions, decision-making is commonly organised through assemblies, collective deliberation, and locally legitimate rule-setting, as visible in Osacoop and emerging coordination spaces such as Plataforma Norte. This corresponds to participatory governance approaches which argue that horizontal decision-making strengthens ownership, accountability, and organisational stability (Chambers, 1994; Ostrom, 2000). Empirically, such internal participation appears to

stabilise cooperation and allows organisations to engage with external institutions and buyers without fully losing autonomy. Nationally, this suggests that the sector's key governance strength lies in participatory internal structures that counterbalance externally hierarchical, buyer-driven market coordination.

Taken together, Costa Rica's smallholder cocoa sector operates within a mediated governance framework. Collective organisations function as central hubs linking producers to markets and institutions, yet remain embedded in externally shaped price and compliance regimes. Figure 6 reinforces this interpretation by mapping collective organisations as the central governance hubs linking producers with buyers, institutions, and development actors. The decisive national challenge for collective organisations is therefore, whether they can stabilise and institutionalise their intermediary role beyond individual leadership and project cycles. Where this succeeds, self-organisation becomes a mechanism of partial empowerment; where it fails, producers remain structurally dependent and confined to reactive adaptation rather than strategic positioning.

e) Social and Cultural Dimensions of Self-Organisation

Across all regions, collective self-organisation is deeply embedded in social relations, shared norms, and local identity. Producers frame cocoa not merely as an economic crop, but as part of family tradition, environmental responsibility, and regional belonging—ranging from indigenous identity and agroecological stewardship to regionally cultivated "cocoa culture" and strong internal cohesion within cooperative structures. Such culturally and ecologically embedded meaning-making fosters locally grounded ownership and durable collective commitment (Chambers, 1994; Ostrom, 2000). In social capital terms, this translates into strong bonding ties that stabilise cooperation within cohesive groups (Woolcock, 1998).

However, bonding social capital alone does not guarantee organisational consolidation. While internal cohesion supports trust and participation, durable market positioning depends on complementary bridging capacities linking organisations to markets, institutions, and external knowledge (Woolcock, 1998; Markelova et al., 2009). Empirically, Costa Rica's cocoa sector exhibits strong internal cohesion across regions, yet bridging structures remain unevenly consolidated. While some organisations have institutionalised external linkages through stable buyer relations and coordination platforms, others remain dependent on fragmented projects or informal networks. The national pattern is therefore not a lack of social cohesion, but an incomplete translation

of bonding capital into systematically structured external coordination. Collective identity is strong; its organisational extension remains uneven.

A further cross-regional insight concerns the normative limits of commercialisation. Across regions, producers consistently link cocoa expansion to agroforestry-based sustainability and biodiversity protection, framing intensification as undesirable if it threatens ecological balance. Literture shows that locally legitimate norms shape which economic strategies are socially accepted and collectively supported (Chambers, 1994; Ostrom, 2000). Empirically, this sustainability orientation functions as both governance asset and constraint: it strengthens long-term commitment and legitimacy, yet it constrains volume expansion and limits growth-oriented upgrading strategies.

Taken together, Costa Rica's cocoa sector demonstrates social cohesion as a structural resource. Collective identity and environmental commitment provide a strong foundation for cooperation across regions. The national challenge is therefore not the absence of collective identity, but the conversion of culturally embedded cohesion into durable organisational and market coordination capacity.

The following table synthesises the central interpretative insights derived from the comparative discussion and highlights shared national-level structural patterns alongside region-specific divergence trajectories.

Table 7
Structural Challenges, Potentials and Development Trajectories (Interpretative Synthesis)

Interpretative Dimension	**Caribe Sur (Bribri Territory)**	**Huetar Norte**	**Pacífico Sur (Osa)**
Core Structural Challenge	**Collective self-organisation operates under smallholder conditions, fragmented sector governance, and limited structural incentives for coordinated upgrading.**		
	Cultural cohesion without economic consolidation; managerial capacity gap	Partial institutionalisation under capital constraints	Institutional consolidation within peripheral context; limited human resources
Key Development Potential	**Ecological quality and social cohesion create strong foundations, but require institutional consolidation to translate into durable economic upgrading.**		
	Strong bonding capital; niche-	Emerging meso-level coordination	Established cooperative

	quality cocoa identity	through Plataforma Norte	infrastructure and processing capacity
Main Governance Bottleneck	**Limited convergence of governance competence, market coordination, and aggregation capacity.**		
	Administrative capacity gaps; unstable organisational trajectories	Risk of bureaucratic consolidation reducing participation; Emerging structure without stable institutional anchor	Increasing institutionalisation → rising internal governance demands
Strategic Leverage	**Institutional consolidation is the decisive leverage for transforming social cooperation into effective economic coordination.**		
	Managerial capacity-building; culturally aligned collective action	Careful formalisation and rule clarification	Governance professionalisation and market diversification
Structural Risk Pattern	**Without strengthened institutional embedding, collective action risks remaining socially resilient but economically marginal.**		
	Persistent organizational fragmentation; market dependency	Coordination fatigue and stalled formalisation	Rising internal governance complexity; buyer concentration risks
Likely Development Trajectory	**Future transformation depends on aligning ecological quality, collective identity, and institutionalised coordination mechanisms.**		
	Culturally anchored small-scale resilience model	Platform-based gradual consolidation	Deepening cooperative-led model with governance adaptation

Note. Author's own interpretative synthesis based on the discussion of empirical findings (Section 5).

The synthesis highlights that while the sector operates under shared structural constraints, the degree of institutional consolidation and governance–market alignment shapes divergent regional development trajectories.

6.3. Comparative Discussion: Honduras

To further contextualise the Costa Rican findings, the literature on smallholder cocoa production in Honduras serves as a comparative reference. Rather than functioning as a benchmark of success, the Honduran case helps clarify which governance and organisational conditions enable more stable collective self-organisation under broadly comparable structural conditions, including smallholder-based agroforestry production and fine-flavour positioning (Escobedo Aguilar, 2013). The comparison is therefore used to highlight mechanisms that remain fragmented or only partially developed in Costa Rica.

Sector-level coordination as a missing governance layer

A key difference lies in the degree of sector-wide institutional alignment. Honduras benefits from coordination structures such as the National Cocoa Chain Committee, which links research, extension, certification support, and market development across actors (CBI, 2021). This reduces fragmentation and creates continuity beyond project cycles. In Costa Rica, by contrast, support is dispersed across MAG, INDER, universities, NGOs and private buyers, often resulting in discontinuous, project-based interventions and regionally uneven institutional reinforcement (OM, ITAMU). Empirically, this pattern is visible in the Bribri Territory in Caribe Sur, where external support remains temporary and organisations struggle to consolidate routines. In Huetar Norte, Plataforma Norte partly compensates for the lack of national coordination. From a governance perspective, this supports Gaventa's (2006) argument that fragmented "invited spaces" rarely translate into stable collective capacity without institutional anchoring. The Honduran case therefore suggests that Costa Rica's key challenge may not be a lack of initiatives, but the absence of a sector-specific coordination layer that aligns and sustains them over time.

Market anchoring through long-term relational trade

A second mechanism concerns the structure of market integration. Honduran cooperatives such as APROSACAO are more consistently embedded in differentiated export value chains and maintain long-term relationships with specialised international buyers, creating stable incentives for quality coordination, traceability and certification (Arias & Fromm, 2019; Voora et al., 2020). In Costa Rica, low production volumes and administrative export requirements constrain many producer initiatives, which increases their reliance on national markets and intermediary-driven price structures (OM, P4, ACOMUITA). This difference is analytically important because market relations shape whether cooperation generates tangible advantages or remains economically uncertain.

In line with global value chain theory, relational buyer linkages can stabilise upgrading when they provide predictable demand, quality-based price premiums, and longer-term purchasing commitments that make collective post-harvest coordination economically worthwhile (Gereffi et al., 2005). The contrast suggests that organisational consolidation is not simply a matter of internal organisation, but of whether market governance consistently makes cooperation structurally viable.

Knowledge infrastructure and sector-wide learning

Finally, Honduras illustrates the importance of codified and coordinated knowledge systems. Long-term agroforestry research (e.g., FHIA) and tools such as the Catalogue of Cocoa Clones provide a sector-wide reference framework that supports coordinated planting strategies and quality differentiation (Ramírez-Argueta et al., 2022). In Costa Rica, technical knowledge exists but diffusion remains uneven and often project-dependent, reinforcing regional disparities in upgrading capacity. In line with Devaux et al. (2018), coordinated research-extension networks can function as mechanisms of inclusive innovation by reducing information asymmetries and strengthening collective learning.

Overall, the Honduran comparison reinforces that collective self-organisation stabilises not primarily through social cohesion alone, but through the convergence of sector-level governance coordination, market anchoring that rewards cooperation, and institutionalised knowledge infrastructures. The contrast highlights that organisational consolidation appears closely linked to systemic coordination and institutional alignment, shaping the durability and scaling potential of collective initiatives.

6.4. Discussion Summary

Costa Rica's fine cocoa sector is ecologically strong, but structurally constrained. Across all regions, cocoa is embedded in diversified agroforestry systems and sustainability-oriented values, yet production remains low-volume and dispersed. This creates a sectoral paradox: quality potential is high, while the organisational and economic base for coordinated upgrading is thin.

The case studies reveal three related pathways of collective self-organisation. In Caribe Sur, Talamanca, cooperation is culturally grounded and socially cohesive, but often fails to consolidate into stable economic coordination. In Huetar Norte, network-based coordination through recurring exchange reduces fragmentation even without a single dominant organisation. In Pacífico Sur, cooperative institutionalisation enables reliable

post-harvest control and market integration, while shifting challenges toward managerial workload, leadership renewal, and administrative complexity.

Across regions, the decisive factor is whether collective initiatives can combine governance competence, market competence, and aggregation capacity. This convergence determines whether self-organisation becomes structurally effective or remains economically marginal. Ecological quality and social cohesion alone are not sufficient. Durable collective action depends on institutionalised rule-setting, role distribution, shared infrastructure, and the ability to coordinate fermentation and drying as the first critical upgrading threshold.

The Honduras comparison sharpens the core insight. Collective organisation stabilises where cooperation is structurally rewarded. Long-term buyer linkages, sector-level coordination, and institutionalised knowledge systems create predictable incentives for quality upgrading and collective investment. In Costa Rica, these reinforcing mechanisms remain fragmented. Without stable market anchoring and aligned sector governance, even socially cohesive initiatives struggle to translate cooperation into durable economic positioning.

Overall, collective self-organisation in Costa Rica is tangible and socially embedded, yet its structural effects remain uneven. The cases show that self-organisation only becomes economically transformative when ecological quality is matched by institutional consolidation and cross-sector coordination. Where these elements remain fragmented, collective action persists—but rarely translates into durable market power.

6.5. Recommendations

The following recommendations are derived directly from the empirical findings and are structured by region. They are primarily addressed to smallholder producers and their collective initiatives, as these actors constitute the core drivers of bottom-up self-organisation. Where relevant, recommendations also refer to public institutions and support actors, but only in terms of how external engagement can reinforce locally driven coordination rather than replace it. The aim is therefore not to propose standardised organisational models, but to outline context-specific leverage points for strengthening collective capacity under regional conditions.

6.5.1. Región Caribe Sur – Bribri Territory in Talamanca

For producers in the Caribe Sur region, particularly within the Bribri territory, the priority is not rapid expansion but gradual institutional strengthening rooted in local realities. The

region's biodiversity-rich agroforestry systems, organic practices, and cultural knowledge already provide a strong foundation. The challenge lies less in production quality and more in coordination and administrative capacity.

A first practical step is to strengthen collective post-harvest control. Even small-scale shared fermentation and drying arrangements can improve quality consistency and reduce dependence on immediate buyers. Starting with small producer groups and simple coordination mechanisms—such as shared schedules, basic record-keeping of volumes and prices, and transparent internal communication—can gradually build trust in coordinated collective routines.

Strengthening administrative skills within the community is equally important. Investing in young community members who are willing to take on coordination, bookkeeping, and digital communication roles can help translate strong internal cohesion into more outward-oriented collective action. These roles do not require immediate formalisation but benefit from continuous learning and peer exchange.

Rather than adopting externally designed cooperative models, producers can benefit from strengthening culturally legitimate hybrid structures rooted in existing community-based governance practices such as Ulà mą̲nę̲u̲k. The strong sense of community, family-based cooperation, and collective responsibility in the Bribri territory provides a stable foundation for gradual organisational strengthening. By formalising coordination only where relevant, producers can expand collective capacity without undermining local autonomy. At the same time, stepwise integration into national cocoa networks and exchange platforms can broaden market options while maintaining community control.

For the Bribri Territory, the pathway forward lies in strengthening governance capacity, shared processing routines, and external linkages step by step—before considering larger scaling ambitions.

6.5.2. Región Huetar Norte

For producers and processors in Huetar Norte, the key priority should be to stabilise and gradually strengthen Plataforma Norte as a shared coordination space. The platform already reduces fragmentation by creating regular exchange and shared agendas. The next step is to deepen this coordination without losing its open and participatory character.

Members can strengthen the platform by clarifying internal roles, defining simple rules for decision-making, and ensuring transparent communication of prices and costs. Even basic collective tools—shared documentation of volumes, cost calculations, and agreed

quality standards—can increase trust and strategic clarity. Formalisation is a crucial next step to strengthen Plataforma Norte's long-term influence, secure funding access, and increase bargaining power. However, this process should be carefully designed to avoid bureaucratic barriers, declining participation, or the concentration of decision-making in a small circle. Clear role distribution, transparent rules, and broad member involvement are essential to ensure that formalisation increases long-term benefits for smallholders.

Strengthening market literacy is equally important. Producers and processors can benefit from joint discussions on cost structures, pricing strategies, and long-term planning. This reduces dependence on informal knowledge held by a few individuals and distributes responsibility more evenly.

Given existing processing capacities and local cocoa identity, Huetar Norte can continue consolidating domestic markets. Collaboration with artisanal chocolatiers, shared branding initiatives, and coordinated storytelling around regional identity can stabilise income without requiring large export volumes.

For Huetar Norte, the pathway forward lies in institutional continuity, shared economic transparency, and gradual consolidation of collective routines under low-scale conditions.

6.5.3. Pacífico Sur – Peninsula Osa

For members of Osacoop in Pacífico Sur, the priority is to consolidate existing cooperative strength while managing growing organisational complexity. The cooperative has already achieved centralised processing and stable market access. The challenge now lies in sustaining this structure as responsibilities expand.

Osacoop has already developed strong internal coordination routines. However, as organisational complexity increases, long-term stability will depend on further strengthening administrative capacity and ensuring that financial management, documentation, and export-related tasks are not concentrated in a small number of key individuals.

At the same time, reducing dependence on a limited number of buyers should become a strategic priority. The currently underutilised local market—particularly linked to tourism and regional retail—offers potential for greater price flexibility, higher local value capture, and reduced exposure to global price volatility. Given Osa's tourism profile and conservation identity, members can develop initiatives already emerging at farm level by further developing chocolate experiences, agroforestry tours. These activities, together with tourism initiatives beyond cocoa production, hold strong potential to generate

complementary income streams for the cooperative. By coordinating such activities more systematically at cooperative level, the organisation can strengthen financial resilience and reduce dependence on volatile commodity markets.

Rather than focusing primarily on expanding production volume, members may benefit from consolidating governance capacity and strategically differentiating their products based on sustainability and regional uniqueness.

For Pacífico Sur, the path forward lies in governance professionalisation, risk diversification, and careful consolidation of cooperative achievements.

6.6. Limitations and Future Research

Limitations of the Study

This study applies a qualitative case study approach that enables in-depth insight into organisational dynamics but does not allow statistical generalisation. Interviews were strategically selected across Costa Rica's three main cocoa-producing regions. However, the empirical basis remains selective due to time constraints and limited access to certain actors. The findings therefore reflect the perspectives of accessible participants rather than providing a comprehensive sector-wide representation.

The empirical focus lies primarily on smallholder producers and selected producer organisations. Other key actor groups were not included in the sample, particularly larger commercial farmers, export-oriented companies, internationally connected buyers, and domestic artisanal chocolatiers. In addition, several institutional actors that directly shape organisational development—such as INFOCOOP, INDER, MAG, and research programmes—were not systematically covered. As a result, demand-side dynamics, export governance structures, and the institutional perspective on organisational support are only partially captured.

Data collection relied largely on self-reported information. While this allows insight into perceptions and organisational practices, it may include selective narratives and limited visibility into broader market structures. In particular, governance competence, market competence, and aggregation capacity were assessed mainly through interviews and observation. It was not possible to systematically verify these dimensions through detailed economic data such as cost structures, contractual arrangements, transaction volumes, or income records. This constrains the precision of economic comparison across cases.

The research is also temporally and spatially bounded. Field visits were short and do not allow long-term observation of organisational change. The findings therefore represent a snapshot rather than a longitudinal analysis. Cocoa prices were unusually high during the fieldwork period, which may have influenced perceptions of opportunity and risk.

Finally, Costa Rica's specific structural conditions—small production scale and the marginal national role of cocoa—limit direct transferability to larger producing countries.

Directions for Future Research

Future research should focus on how collective self-organisation can become structurally effective under Costa Rica's conditions. Future research should explore which concrete market arrangements, including contracts, quality-based price incentives, and reliable purchasing commitments, enable producer organisations to secure stable buyer relations.

Further research should examine how internal governance capacity can be consolidated without weakening participation. This includes leadership models, task distribution, administrative routines, and mechanisms that prevent organisational fragility under growing complexity.

Given the sector's scale constraints, more work is needed on region specific viable aggregation models. Research should assess economic thresholds for shared processing infrastructure and identify coordination mechanisms that allow smallholders to pool volumes sustainably.

Finally, future studies should explore certification and domestic market development as strategic pathways. This involves identifying certification models suited to smallholder realities and analysing how national value chains can provide stable upgrading incentives where export access remains limited.

Taken together, these directions translate this study's findings into a focused research agenda on how collective self-organisation can be made durable under existing structural constraints.

7. Conclusion

This research examined how collective self-organisation among smallholder cocoa producers in Costa Rica shapes opportunities and constraints for sustainable rural development within the sector. The findings show that collective self-organisation is not marginal. It already affects market access, value retention, and local governance practices. Yet its outcomes differ sharply across regions.

The central conclusion is clear: collective self-organisation becomes structurally relevant only when three capacities converge — governance competence, market competence, and aggregation capacity. Self-organisation can stabilise coordination and reduce transaction costs, but it only shifts power within the value chain when producers jointly control post-harvest processes, professionalise internal management, and coordinate externally. Where these capacities remain weak, self-organisation increases resilience, but does not alter structural asymmetries.

This study demonstrates that collective self-organisation shapes bottom-up rural development in Costa Rica in three distinct ways: it stabilises local coordination, partially improves value retention through post-harvest control, and strengthens governance routines at regional level. At the same time, it remains structurally constrained by limited aggregation capacity, weak administrative professionalisation, and externally concentrated market power. Rural development outcomes therefore depend not on the existence of collective organisation alone, but on the degree of institutional consolidation and value chain integration achieved.

Across regions, differences in outcomes are explained by institutional depth. Where producers create stable coordination spaces and shared infrastructure, they move from informal cooperation to economic consolidation. Where organisation remains socially embedded but administratively weak, upgrading stalls. In Pacífico Sur, cooperative consolidation has enabled centralised processing and coordinated marketing; in Huetar Norte, recurring regional platforms have reduced fragmentation and created a shared agenda; in Talamanca, strong cultural cohesion contrasts with infrastructural exclusion and limited administrative capacity. The spectrum observed across regions shows one core thesis: without internal consolidation, collective intention does not translate into structural change.

The findings also show that self-organisation operates within externally shaped market structures. Even during high price periods, most producers remain price takers. Price booms do not change power asymmetries — control over fermentation, drying, quality

standardisation, and volume aggregation does. Export thresholds, certification costs, and logistical constraints continue to limit access to higher-value international markets, reinforcing the importance of domestic upgrading. The most realistic pathway for smallholders lies in strengthening the national market through collective post-harvest control, professional quality management, and coordinated marketing. According to value chain theory, functional upgrading — not production expansion — is the key lever. This means investing collectively in shared processing infrastructure, technical training, transparent price knowledge, and administrative capacity. Export markets remain structurally inaccessible for most; national upgrading is the strategic entry point for smallholder cocoa producers in Costa Rica.

External actors can support collective initiatives but do not replace internal capacity. Support becomes effective only when producer organisations define clear needs, articulate them strategically, and engage in participatory governance rather than remaining project recipients. Smallholders require internal professionalisation — accounting, market analysis, certification management — combined with a clear mapping of external actors and instruments. Only when producers understand governance structures and formulate proactive demands can external support become cumulative instead of fragmented. The absence of a coherent sector-level coordination layer currently limits cumulative learning and long-term institutional alignment across regions.

Collective self-organisation also functions as a counterweight to externally concentrated market power. When producers coordinate volumes, share information, and negotiate jointly, they reduce dependency on single buyers and weaken asymmetric bargaining structures. Without collective coordination, external actors define market terms. With it, producers regain partial agency. Participatory governance spaces — such as regional platforms — show that claimed coordination spaces can rebalance power relations more effectively than invited project structures.

Social cohesion and sustainability values form the foundation across all regions. Trust, shared identity, and agroforestry-based production create the preconditions for cooperation. However, bonding social capital alone is not transformative. Social cohesion becomes economically relevant only when translated into organisational routines, administrative competence, and stable market linkages. Cultural embeddedness provides essential legitimacy and long-term ownership — but institutionalisation determines impact.

The Honduras comparison reinforces this interpretation. Collective organisation becomes economically transformative when cooperation is consistently rewarded through stable buyer relations, sector-wide coordination mechanisms, and institutionalised knowledge systems. Costa Rica shows strong local initiative but lacks systemic alignment. The binding constraint is not ecological potential or willingness to cooperate, but the absence of coordinated reinforcement mechanisms that stabilise upgrading processes over time.

This study contributes to collective action research by demonstrating that self-organisation is neither inherently transformative nor inherently fragile. Its impact depends on the alignment between internal organisational consolidation and external coordination structures. Costa Rica's cocoa sector illustrates both the potential and the structural limits of bottom-up development under small-scale, niche-oriented conditions within globally governed markets.

Collective self-organisation in Costa Rica is already consequential. Its future impact depends on one strategic shift: from socially rooted cooperation to professionally coordinated market positioning. If producers invest collectively in post-harvest control, administrative competence, and coordinated national market strategies - while engaging external actors through clearly defined demands - self-organisation can evolve from adaptive resilience to a structurally embedded driver of agroforestry-based rural development.

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9. Appendix

Appendix I: Interview Quotations (Original and Translation)

A) Region Caribe Sur

English (in-text): “Cocoa has always been produced here. It is only now that companies say: you have to plant, you have to graft. But cocoa production has always been here… only Criollo… everything is maintained naturally, no chemicals, prohibited.” – P1

Spanish (original): “Siempre siempre siempre. desde siempre se produce cacao también. Es ahora que la empresa dice: hay que sembrar. hacerlo como injertado. para siempre tenía esa producción de cacao. Solo criollo. También el mantenimiento así natural. nada de chímico. prohibido.” – P1

English (in-text): “We do not work with chemicals here.” – P3
Spanish (original): “Aquí no trabajamos con químicos.” – P3

English (in-text): “At the moment there is no organisation, people work individually.” – P1
Spanish (original): “No por ahora no. Pero pienso que deberían hacer. trabajan en la manera, todos individuales.” – P1

English (in-text): “It is a women’s association that has existed for more than 30 years… strengthening the role of women in all areas of decision-making within the indigenous territory.” – ACOMUITA
Spanish (original): “Es una asociación de mujeres que tiene más de 30 años… fortalecer el rol de la mujer en todas las áreas para la toma de decisiones dentro del territorio indígena…” – ACOMUITA

English (in-text): “Right now yes, because the price is good. So we don’t have complaints anymore. At least with that we can defend ourselves.” – P4
Spanish (original): “Ahorita sí. Porque está en buen precio. Entonces ya no tenemos quejas. Por lo menos con eso nos defendemos.” – P4

English (in-text): “There is something hidden that the producer does not know… the producer does not know if his cacao is properly valued… the intermediary always steals.” – P1
Spanish (original): “Entonces, ahí hay como algo escondido que el productor no

sabe… Entonces, ahí hay como algo escondido que el productor no sabe no sabe si su cacao está bien valorado y ellos compran muy barato entonces es algo jodido. El intermediario siempre hurta." – P1

English (in-text): "I would like that at some point an organisation would return again… that they bring us training… so that more people learn how to do grafting." – P1
Spanish (original): "Me gustaría que en alguna ocasión otra vez vuelva a alguna organización… Nos traigan para capacitarnos… más gente para que aprendan a hacer ese injerto…" – P1

English (in-text): "We were left indebted on such a scale that even now we are only just getting out of the water." – APPTA

Spanish (original): "Quedamos endeudados a una escala que… hasta este momento apenas estamos saliendo del agua…" – APPTA

English (in-text): "Criollo is excellent… it weighs more and it has more oil." – P4
Spanish (original): "El criollo es buenísimo… pesa más. Tiene más peso. Y más aceite." – P4

English (in-text): "I have seen that companies always play with us indigenous people here." – P3
Spanish (original): "Yo le he visto que la empresa siempre juega con nosotros los indígenas aquí." – P3

English (in-text): "Producers can use the plant to dry… this is what they wanted to do… to add value to their work." – P1
Spanish (original): "Los productores pueden usar la planta para secar… Es eso que quisieron hacer… dar valor agregado a su trabajo." – P1

English (in-text): "We need more skills in commercialisation." – APPTA
Spanish (original): "Necesitamos más habilidad en comercialización." – APPTA

English (in-text): "Before, cocoa was not being bought. It was not like that. Then when the company came to buy cocoa, we started planting." – P3

Spanish (original): "Porque anteriormente no se compraba lo que es cacao. Antes no andaba eso. No andaba. Entonces, después cuando vino la empresa a comprar cacao, empezamos a sembrar." – P3

English (in-text): “Coproxa is better because right now it pays 1,500 colones per kilo… Trobanex pays less, so we don’t sell to them.” – P4
Spanish (original): “Pero Trobanec está a menos precio… Entonces nosotros no vendemos. Si vendemos a ellos estamos perdiendo. Entonces Coproxa mejor. La Coproxa que está ahorita $1,500 el kilo.” – P4

B) Region Huetar Norte:

English (in-text): “The forest gives everything—medicine, food, air, life. Cacao is more like a complement.” – MALEKU
Spanish (original): “El bosque lo da todo: medicina, comida, aire, vida. El cacao es más como un complemento.” – MALEKU

English (in-text): “We produce Criollo cacao, not CATIE cacao. Criollo is less volume, but for flavour and quality, it is Criollo… these are ancient cacao trees.” – MALEKU
Spanish (original): “Producimos cacao Criollo, no cacao CATIE. El Criollo da menos volumen, pero en sabor y calidad es Criollo… estos son cacaos antiguos.” – MALEKU

English (in-text): “To promote cacao production and to keep cacao producers united, so they would not be scattered—one here and one there.” – ASOPAC

Spanish (original): “Para promover la producción de cacao y mantener unidos a los productores, que no estuvieran dispersos, uno aquí y otro allá.” – ASOPAC

English (in-text): “This year we are working with around 14 tons… which results in approximately 3.5 or 4 tons of dried cacao.” – ASOPAC

Spanish (original): “Este año estamos trabajando con unas 14 toneladas… lo que da aproximadamente 3,5 o 4 toneladas de cacao seco.” – ASOPAC

English (in-text): “It is not about connecting internationally. That is not part of us, not in our spirit as indigenous people.” – MALEKU

Spanish (original): “No se trata de conectarse internacionalmente. Eso no es parte de nosotros, no está en nuestro espíritu como pueblo indígena.” – MALEKU

English (in-text): “The reason why a group succeeds depends on why they organised in the first place. If they unite to ask for funds, they will remain dependent. But if they unite to commercialise and generate income together, they have a much higher chance of success.” – ITAMU

Spanish (original): “La razón por la cual un grupo tiene éxito depende de por qué se organizaron. Si se unen para pedir fondos, van a seguir dependiendo. Pero si se unen para comercializar y generar ingresos juntos, tienen muchas más posibilidades de éxito.” – ITAMU

English (in-text): “The meetings have not been suspended; they continue month after month, and even more people are joining.” – ASOPAC
Spanish (original): “Las reuniones no se han suspendido; continúan mes a mes y cada vez se suma más gente.” – ASOPAC

English (in-text): “The lines of work are: one, quality and standardisation; two, production improvement; and third, climate change.” – ASOPAC
Spanish (original): “Las líneas de trabajo son: uno, calidad y estandarización; dos, mejora de la producción; y tres, cambio climático.” – ASOPAC

English (in-text): “We can keep prices low while maintaining high quality… even if we do not use luxury packaging.” – AMECUP
Spanish (original): “Podemos mantener precios bajos y al mismo tiempo una alta calidad… aunque no utilicemos empaques de lujo.” – AMECUP

English (in-text): “Export is complicated… you need permits, you need volume… for the smallest buyer I needed at least half a ton of dried cacao.” – ITAMU

Spanish (original): “Exportar es complicado… se necesitan permisos, se necesita volumen… para el comprador más pequeño necesitaba al menos media tonelada de cacao seco.” – ITAMU

English (in-text): “Bandera Azul Ecológica does not certify that the product is organic, but it certifies that we process with clean energy… the cacao that enters our plant is not treated with agrochemicals.” – AMECUP

Spanish (original): “Bandera Azul Ecológica no certifica que el producto sea orgánico, sino que procesamos con energía limpia… el cacao que entra a nuestra planta no está tratado con agroquímicos.” – AMECUP

English (in-text): “There must be balance… our vision is not to turn everything into a business.” – MALEKU

Spanish (original): “Tiene que haber equilibrio… nuestra visión no es convertir todo en negocio.” – MALEKU

English (in-text): “Our ancestors tell us to use medicinal plants, but not to exterminate them… there must be balance to protect nature.” – MALEKU

Spanish (original): “Nuestros ancestros nos dicen que usemos las plantas medicinales, pero no que las exterminemos… tiene que haber equilibrio para proteger la naturaleza.” – MALEKU

C) Region Pacífico Sur

English (in-text): “Cacao is not our main crop; palm and cattle are still stronger. But cacao is safer and fits better with agroforestry.” – OP1

Spanish (original): “El cacao no es nuestro cultivo principal; la palma y el ganado siguen siendo más fuertes. Pero el cacao es más seguro y se adapta mejor a los sistemas agroforestales.” – OP1

English (in-text): “Some of us have only one or two hectares of cacao, but others have large farms with forest areas. It depends on each producer.” – OP3

Spanish (original): “Algunos tenemos solo una o dos hectáreas de cacao, pero otros tienen fincas grandes con áreas de bosque. Depende de cada productor.” – OP3

English (in-text): “If we were not in OSACOOP, it would be very difficult to sell cacao.” – OP2

Spanish (original): “Si no estuviéramos en OSACOOP sería muy difícil vender el cacao.” – OP2

English (in-text): “The producers deliver the cacao fresh. The cooperative takes care of fermentation, drying and commercialization.” – OM
Spanish (original): “Los productores entregan el cacao en baba. La cooperativa se encarga de la fermentación, el secado y la comercialización.” – OM

English (in-text): “The chocolate factory was possible thanks to European funding.” – OM
Spanish (original): “La planta de chocolate fue posible gracias a fondos europeos.” – OM

English (in-text): “We have chocolate, but the volumes are still small compared to selling dry cacao.” – OM

Spanish (original): “Tenemos chocolate, pero los volúmenes todavía son pequeños en comparación con la venta de cacao seco.” – OM

English (in-text): “The roads are bad, transport is expensive, and that makes everything more complicated.” – OP1
Spanish (original): “Los caminos están malos, el transporte es caro, y eso complica todo.” – OP1

English (in-text): “Here we try to protect the forest. Sometimes animals eat the cacao, but we accept that.” – OP3

Spanish (original): “Aquí tratamos de proteger el bosque. A veces los animales se comen el cacao, pero lo aceptamos.” – OP3

English (in-text): “The cooperative works like a family. If someone has a problem, we try to help.” – OP2

Spanish (original): “La cooperativa funciona como una familia. Si alguien tiene un problema, tratamos de ayudar.” – OP2

English (in-text): “We would like to grow step by step, improve quality and strengthen the cooperative before thinking about export.” – OM

Spanish (original): “Queremos crecer paso a paso, mejorar la calidad y fortalecer la cooperativa antes de pensar en exportar.” – OM

Appendix II: Interview-Guide (Original Spanish Version)

Las entrevistas fueron realizadas en español durante el trabajo de campo. La guía fue utilizada de manera flexible en el marco de entrevistas semiestructuradas. Las preguntas se organizaron en bloques temáticos, permitiendo adaptaciones según el perfil del entrevistado y el desarrollo de la conversación.

I. Guía de Entrevista – Cooperativas y Organizaciones

Bloque A: Contexto y producción

¿Dónde se ubica la cooperativa/organización y cuántos miembros tiene?

¿Cuándo y cómo fue fundada? ¿Cuáles han sido los momentos clave en su trayectoria?

¿Cómo se estructura la propiedad de las fincas de los socios?

¿Cómo se organiza el proceso productivo, especialmente en relación con el cacao?

¿Qué variedades de cacao cultivan?

¿Qué prácticas de manejo utilizan (fertilización, diversificación, prácticas ecológicas)?

¿Cómo organizan el procesamiento (fermentación, secado, transformación)?

¿Qué volumen manejan y cuáles son las principales formas de venta?

Bloque B: Estructura organizativa y funcionamiento interno

¿Cómo está organizada la cooperativa (roles, jerarquías, mecanismos de toma de decisión)?

¿Cuál es la relación entre los productores y la cooperativa?

¿Qué beneficios obtienen los miembros (acceso a insumos, comercialización, precios, asistencia técnica)?

¿Qué ventajas ofrece la cooperativa frente al trabajo individual?

¿Qué dificultades o conflictos internos existen?

¿Qué grado de influencia tienen los miembros en decisiones clave como precios, comercialización o estrategias productivas?

Bloque C: Mercado y posicionamiento en el sector

¿Con qué mercados trabajan (nacional, internacional)?

¿Quiénes son sus principales socios comerciales o clientes?

¿Cuentan con certificaciones (orgánica, comercio justo, Rainforest u otras)?

¿Cómo evalúan el potencial del cacao costarricense en el mercado? ¿Qué oportunidades y limitaciones identifican?

¿Qué papel desempeña la cooperativa en la valorización del cacao (calidad, marca, exportación)?

¿Qué influencia tiene la organización en decisiones sectoriales más amplias?

Bloque D: Actores externos y apoyo institucional

¿Con qué actores externos colaboran (ONGs, Estado, universidades, proyectos internacionales, etc.)?

¿Qué tipo de apoyo reciben (capacitación, financiamiento, infraestructura, asistencia técnica, comercialización)?

¿Qué apoyos consideran más útiles y cuáles menos?

¿Influyen estos actores en las decisiones internas de la organización?

¿Qué tipo de apoyo externo consideran prioritario actualmente?

Bloque E: Desafíos y perspectivas futuras

¿Cuáles son los principales desafíos en producción, procesamiento, comercialización y organización?

En comparación con otros países como Honduras o Nicaragua, ¿cómo evalúan la estructura cooperativa en Costa Rica?

¿Qué expectativas tienen respecto al apoyo estatal u otras instituciones?

¿Qué cambios serían necesarios para fortalecer la cooperativa y mejorar su utilidad para los miembros?

¿Cuáles son sus planes y perspectivas para el futuro?

Bloque F (opcional): Dimensión cultural y social

¿Qué papel desempeña el cacao en la comunidad más allá de lo económico?

¿Tiene un significado cultural o espiritual específico?

¿Qué roles cumplen hombres y mujeres en la producción, transformación y comercialización?

¿Cómo perciben la comercialización del cacao en relación con su uso cultural o comunitario?

II. Guía de Entrevista – Productores Individuales

Objetivo

Comprender la experiencia de productores individuales en relación con su historia productiva, su participación (o no) en organizaciones, sus principales desafíos y su percepción del sector cacaotero y de las posibilidades de autoorganización.

Bloque A: Información general

¿Puede describir su finca (ubicación, tamaño, historia familiar)?

¿Desde cuándo produce cacao?

¿Qué otras actividades agrícolas o económicas desarrolla además del cacao?

Bloque B: Producción y prácticas

¿Qué variedades de cacao cultiva y por qué?

¿Cómo organiza el manejo del cultivo (abonos, prácticas ecológicas, diversificación)?

¿Cómo realiza el procesamiento (fermentación, secado, venta, transformación)?

Bloque C: Organización y cooperación

¿Forma parte de una cooperativa, asociación u otra organización?

Si participa: ¿Qué beneficios obtiene?

Si no participa: ¿Por qué no y qué condiciones harían útil su participación?

¿Conoce otras formas de organización en su región?

¿Qué opciones existen en Costa Rica para organizarse colectivamente?

Bloque D: Mercado y actores externos

¿Cómo comercializa actualmente su cacao (intermediarios, cooperativa, venta directa, mercado nacional/internacional)?

¿Cómo evalúa el potencial del cacao costarricense en el mercado?

¿Cuenta con certificaciones? ¿Son útiles?

¿Qué dificultades enfrenta en la venta (precio, volumen, calidad, acceso a compradores)?

¿Ha recibido apoyo de actores externos? ¿Fue relevante para su actividad productiva?

Bloque E: Percepción del sector y necesidades

¿Qué considera que funciona bien en el sector cacaotero en Costa Rica?

¿Cuáles son los principales problemas o limitaciones?

¿Qué apoyo adicional necesitaría para mejorar su producción o ingresos?

¿Considera que el Estado apoya suficientemente a los productores de cacao? ¿Por qué?

Bloque F: Cultura y futuro

¿Qué papel tiene el cacao en su familia o comunidad (económico, cultural, espiritual)?

¿Quiénes participan principalmente en la producción (hombres, mujeres, familia)?

¿Qué expectativas tiene para el futuro como productor de cacao?

¿Qué papel deberían desempeñar las cooperativas u organizaciones en ese futuro?

¿Qué cambios serían necesarios para fortalecer el sector cacaotero en Costa Rica?

Appendix III: Recomendaciones (Versión en Español de Sección 6.5)

Las siguientes recomendaciones se derivan directamente de los resultados empíricos y están estructuradas por región. Se dirigen principalmente a los pequeños productores y a sus iniciativas colectivas, ya que estos actores constituyen el núcleo de la autoorganización desde abajo. Cuando corresponde, también se hace referencia a instituciones públicas y actores de apoyo, pero únicamente en la medida en que su intervención pueda reforzar la coordinación impulsada localmente y no sustituirla. El objetivo no es proponer modelos organizativos estandarizados, sino señalar puntos de intervención específicos que permitan fortalecer la capacidad colectiva bajo condiciones regionales concretas.

Región Caribe Sur – Territorio Bribri en Talamanca

Para los productores del Caribe Sur, especialmente en el territorio Bribri, la prioridad no debe ser una expansión rápida, sino un fortalecimiento institucional gradual y adaptado a las realidades locales. Los sistemas agroforestales con alta biodiversidad, las prácticas orgánicas y el conocimiento cultural ya constituyen una base sólida. El principal desafío no radica en la calidad de la producción, sino en la coordinación y la capacidad administrativa.

Un primer paso práctico consiste en fortalecer el control colectivo de los procesos poscosecha. Incluso esquemas sencillos y de pequeña escala para la fermentación y el secado compartidos pueden mejorar la consistencia de la calidad y reducir la dependencia de compradores inmediatos. Iniciar con grupos pequeños y mecanismos simples de coordinación —como calendarios compartidos, registros básicos de volúmenes y precios, y una comunicación interna transparente— puede generar confianza de manera progresiva y consolidar rutinas colectivas.

También es fundamental fortalecer las capacidades administrativas dentro de la comunidad. Invertir en jóvenes que estén dispuestos a asumir tareas de coordinación, contabilidad básica y comunicación digital puede transformar la cohesión interna en una acción colectiva con mayor proyección externa. Estas funciones no requieren una formalización inmediata, pero sí procesos continuos de aprendizaje y espacios de intercambio entre pares.

En lugar de adoptar modelos cooperativos diseñados externamente, los productores pueden beneficiarse de fortalecer estructuras híbridas culturalmente legítimas, basadas en prácticas de gobernanza comunitaria ya existentes, como el Ulà m̲anêu̲k. El fuerte sentido de comunidad, la cooperación familiar y la responsabilidad colectiva en el territorio Bribri ofrecen una base estable para un fortalecimiento organizativo gradual. Formalizar la coordinación solo cuando sea necesario permite ampliar la capacidad colectiva sin debilitar la autonomía local. Al mismo tiempo, una integración progresiva en redes nacionales del cacao y en plataformas de intercambio puede ampliar las opciones de mercado sin perder el control comunitario.

Para el Caribe Sur, el camino a seguir consiste en fortalecer paso a paso la capacidad de gobernanza, las rutinas compartidas de procesamiento y los vínculos externos, antes de plantear ambiciones de mayor escala.

Región Huetar Norte

Para los productores y procesadores de Huetar Norte, la prioridad central debe ser estabilizar y fortalecer gradualmente la Plataforma Norte como espacio compartido de coordinación. La plataforma ya contribuye a reducir la fragmentación mediante intercambios regulares y la construcción de agendas comunes. El siguiente paso es profundizar esta coordinación sin perder su carácter abierto y participativo.

Los miembros pueden fortalecer la plataforma mediante la clarificación de roles internos, la definición de reglas simples para la toma de decisiones y la garantía de una comunicación transparente sobre precios y costos. Herramientas colectivas básicas —como documentación compartida de volúmenes, cálculos de costos y estándares de calidad acordados— pueden aumentar la confianza y la claridad estratégica. La formalización constituye un paso importante para asegurar la influencia a largo plazo de la Plataforma Norte, facilitar el acceso a financiamiento y fortalecer la capacidad de negociación. Sin embargo, este proceso debe diseñarse con cuidado para evitar barreras burocráticas, una disminución en la participación o la concentración de decisiones en un grupo reducido. Una distribución clara de funciones, reglas transparentes y una amplia participación son condiciones esenciales para que la formalización genere beneficios sostenidos para los pequeños productores.

Asimismo, es fundamental fortalecer la alfabetización económica y de mercado. Productores y procesadores pueden beneficiarse de discusiones conjuntas sobre estructuras

de costos, estrategias de precios y planificación a largo plazo. Esto reduce la dependencia de conocimientos informales concentrados en pocas personas y distribuye la responsabilidad de manera más equilibrada.

Dadas las capacidades de procesamiento existentes y la identidad regional del cacao, Huetar Norte puede continuar consolidando el mercado nacional. La colaboración con chocolateros artesanales, iniciativas de marca compartida y una narrativa coordinada en torno a la identidad regional pueden estabilizar ingresos sin requerir grandes volúmenes de exportación.

Para Huetar Norte, el camino a seguir pasa por la continuidad institucional, la transparencia económica compartida y la consolidación gradual de rutinas colectivas en un contexto de pequeña escala.

Pacífico Sur – Península de Osa

Para los miembros de Osacoop en el Pacífico Sur, la prioridad es consolidar la fortaleza cooperativa ya existente y, al mismo tiempo, gestionar la creciente complejidad organizativa. La cooperativa ha logrado establecer un procesamiento centralizado y un acceso relativamente estable al mercado. El desafío actual consiste en sostener esta estructura a medida que aumentan las responsabilidades.

Osacoop ha desarrollado rutinas sólidas de coordinación interna. Sin embargo, el aumento de la complejidad organizativa exige reforzar aún más la capacidad administrativa. La gestión financiera, la documentación y las tareas relacionadas con posibles procesos de exportación no deberían concentrarse en un número reducido de personas. La distribución de responsabilidades y la formación continua son claves para garantizar estabilidad a largo plazo.

Al mismo tiempo, reducir la dependencia de un número limitado de compradores debe convertirse en una prioridad estratégica. El mercado local, todavía poco aprovechado y vinculado al turismo y al comercio regional, ofrece potencial para mayor flexibilidad de precios, mayor captura de valor local y menor exposición a la volatilidad del mercado internacional. Dado el perfil turístico y la identidad de conservación de Osa, los miembros pueden profundizar iniciativas que ya existen a nivel de finca, como experiencias de chocolate y recorridos agroforestales. Estas actividades, junto con otras iniciativas turísticas complementarias, pueden generar ingresos adicionales para la cooperativa.

Una coordinación más sistemática de estas actividades a nivel cooperativo puede fortalecer la resiliencia financiera y reducir la dependencia de mercados de materias primas

volátiles. En lugar de centrarse principalmente en aumentar el volumen de producción, puede resultar más estratégico consolidar la capacidad de gobernanza y diferenciar los productos con base en la sostenibilidad y la singularidad regional.

Para el Pacífico Sur, el camino a seguir consiste en la profesionalización de la gobernanza, la diversificación de riesgos y la consolidación cuidadosa de los logros cooperativos.

Appendix III: Insights from the Field

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2

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4

5

6

Bribri Territory
1 Sale Fresh Cocoa, Bribri
2 Criollo
3 Cocoa Beans, Fine Quality
4 Cocoa Pods
5 Cocoa Pulp
6 Traditional Cocoa Preparation

Cooproxa
Fermentation,
Drying,
Transport

6

6 Cocoa, Vanilla, Palm Oil
7 Maleku, Agroforest
8 Maleku, Drying Cocoa
9 Amecup, Plantation
10 Itamú, Cocoa Transport

7

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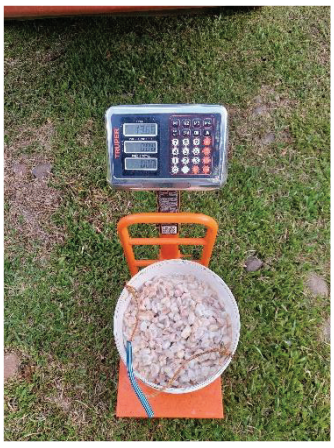

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Appendix IV: Eidesstattliche Erklärung

Hiermit erkläre ich, dass ich die Bachelor-/Masterarbeit mit dem Titel *Collective Self-Organisation in Costa Rica's Cocoa Sector: Challenges and Opportunities for Smallholder Farmers* eigenständig erbracht, keine anderen als die angegebenen Quellen und Hilfsmittel benutzt und die aus fremden Quellen direkt oder indirekt übernommenen Gedanken als solche kenntlich gemacht habe. Die Arbeit habe ich in gleicher oder ähnlicher Form oder auszugsweise noch keiner Prüfungsbehörde zu Prüfungszwecken vorgelegt. Des Weiteren bestätige ich, dass die schriftliche und die elektronische Version der Arbeit identisch sind. Mir ist bekannt, dass Zuwiderhandlungen gegen den Inhalt dieser Erklärung einen Täuschungsversuch darstellen, der grundsätzlich das Nichtbestehen der Prüfung zur Folge hat.

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