

The Specificity of Contract Agreements and Network Governance in Coastal Social Entrepreneurship: A Case Study of Coral Reef Conservation in Bali

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Abstract: Coastal social entrepreneurs play a complex hybrid role in integrating economic, social, and marine ecosystem preservation missions. Unlike commercial corporations that rely on rigid formal contracts based on agency theory, social entrepreneurship requires relational governance. Using a comparative qualitative case study on Banyumilir (Kalibukbuk Village) and North Bali Reef Conservation (NBRC, Tianyar Village), this study analyzes how contract agreements, incentive systems, and rule enforcement are formed through the lenses of hybrid organization and social network theories. Drawing on empirical data from 45 key informants, the study reveals that contractual specificity in coastal social entrepreneurship lies in actor-segmented contract governance: formal contracts serve vertical bureaucratic actors to secure legal legitimacy, whereas horizontal relational commitments govern local community actors. Contract enforcement is achieved not through legal litigation, but through aligning direct economic incentives with coral reef restoration and local customary sanctions.

Keywords: Governance; Coastal Social Entrepreneurship; Contract Agreements; Relational Contracts; Social Network Theory

1. Introduction

The coastal areas of Indonesia have very high ecological and economic value, but vulnerability to extreme poverty and marine environmental degradation remains a major challenge[1]. In Bali, the damage to coral reefs due to anthropogenic activities demands sustainable local governance solutions[2]. The top-down approach from the government often hits a dead end, leading to the emergence of coastal social entrepreneurs as hybrid organizations that combine business logic with environmental restoration missions[3].

In the study of management and law of conventional organizations, governance focuses on minimizing transaction costs thru rigid formal contract instruments[4]. However, for coastal social entrepreneurs involving multiple stakeholders such as fishing groups, indigenous communities, international non-governmental organizations, and the government, rigid formal contracts often fail to respond to the dynamics of marine ecosystem uncertainties[5]. Therefore, there are specificities in contract agreements in this sector, where legal-formal elements intertwine with social norms, trust, and relational agreements[6]. This article aims to map and analyze the specificities of the contract model by taking case studies of two conservation initiatives in Bali, namely Banyumilir and North Bali Reef Conservation (NBRC).

2. Literature Review

2.1. Governance of Hybrid Organizations and Social Entrepreneurship

Social entrepreneurs operate at the intersection of the private, public, and nonprofit sectors, carrying a dual mission: financial sustainability and social-environmental impact[7]. Due to this hybrid nature, traditional governance mechanisms are no longer adequate as they are prone to mission drift if solely driven by profit motives[8]. Governance in this organization is more appropriately approached thru stakeholder governance mechanisms that emphasize collective accountability[9].

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2.2 The Relationship between Formal Contracts and Relational Contracts

In governance theory, contract agreements are divided into two main dimensions: formal contracts (legally written, with third-party legal sanctions) and relational contracts (unwritten, based on trust, reciprocal norms, and flexibility)[4]. Recent research shows that in complex social entrepreneurship ecosystems, these two forms of contracts do not substitute for each other, but rather complement each other to mitigate the risk of cooperation failure[10]. Relational contracts provide operational flexibility, while formal contracts provide institutional legitimacy[10].

2.3 Management of Commons and Coastal Social Networks

Coastal resources such as coral reefs are a form of common-pool resources that require clear collective rules to avoid overexploitation[11]. The success of this management at the local level heavily depends on how the agreements or social contracts among fishermen are designed[12]. A dense social network structure facilitates the monitoring of contract commitments and reduces the tendency for opportunistic actions by the involved actors[13].

3. Method

This study applies a comparative qualitative case study using an extreme case design. The cases represent contrasting outcomes in reef health index (RHI) and social enterprise performance: Banyumilir (Kalibukbuk Village, Buleleng; RHI = 3,0) and NBRC (Tanyar Tengah Village, Karangasem; RHI = 4,5).

3.1 Data Collection & Participants

Primary data were gathered from June to September 2024 through six distinct stages involving 45 informants (21 from Banyumilir, 24 from NBRC):

1. Banyumilir (21 informants): Board management (BP1–BP7), fishermen members (BA1–BA8), village officials (BD1–BD2), and tourists (BW1–BW4).
2. NBRC (24 informants): Founders/board members (NP1–NP5), program/sectoral members (NA1–NA10), village officials (ND1–ND2), and international volunteer tourists (NW1–NW4).

3.2 Data Analysis

Data were analyzed using thematic analysis following Braun & Clarke's protocol (data familiarization, systematic coding, theme identification, mapping relationships, and confirmation through two rounds of Focus Group Discussions).

4. Results and Discussion

4.1. Typology and Specificity of Inter-Actor Contract Agreements

Data analysis reveals an actor-segmented governance framework:

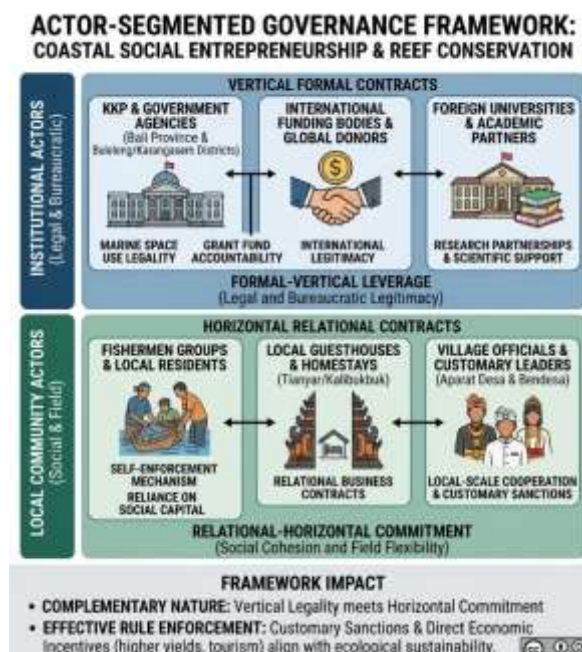


Figure 1. Actor-Segmented Governance Framework

1. Banyumilir: Dominated by vertical formal relations with the Ministry of Marine Affairs and Fisheries (KKP) and village authorities for marine space utilization and grant fund

accountability. Internal relationships with local fishermen rely on informal oral commitments.

2. NBRC: Maintains formal partnership contracts with international volunteer agencies, global donors, foreign universities, and commercial vendors (e.g., PT Bahari Citra Dewata for dive certifications). Concurrently, NBRC uses relational contracts with local residents for homestay, catering, transport, and laundry services.

"Operasional kami independen, tidak dicampuri pihak mana pun... Paling kami koordinasi aja kalau akan ada kegiatan yang melibatkan instansi pemerintah.", NP2 (Chair of NBRC).

4.2 Contract Commitment Enforcement & Incentive Alignment

The most notable specificity is found in the contract enforcement mechanism. In ordinary corporations, contract violations are resolved thru litigation or commercial financial penalties. In coastal social entrepreneurship in Bali, rule enforcement uses an approach of social sanctions and alignment of economic-ecological incentives[15].

In the case of Banyumilir, community commitment is strengthened by a formal local-level agreement that establishes a customary/community fine system (*pararem/awig-awig*) for fishermen who intentionally damage the coral bank area. To enforce these marine protection rules, the management established structured coastal monitoring patrols (*piket patroli pesisir*). As explained by the Head of Coastal Supervision Section (BP6): "Ada piketnya itu untuk patroli di kawasan pesisir. Jangan sampai kawasan konservasi dirusak orang tak bertanggung jawab.", BP6. Furthermore, the enforcement system in Banyumilir is reinforced through legal aid protection provided by the organization to its members when facing external disputes. This institutional backing creates a strong social safety net that incentivizes non-member fishermen to join and comply with organizational rules. As recounted by a local fisherman who faced a legal dispute (BA8) and supported by another member (BA7): "Saya pernah difitnah dan dituntut secara hukum. Saya sangat buta urusan hukum. Bersyukur saya bergabung dalam Banyumilir. Saya mendapatkan bantuan hukum sebagai anggota organisasi.", BA8. "Nelayan yang belum jadi anggota kan melihat bagaimana Banyumilir membantu anggotanya yang menghadapi masalah hukum. Jadi mereka beramai-ramai mendaftar sebagai anggota.", BA7.

On the other hand, at NBRC, community compliance with coral reef conservation contracts occurs organically without coercion (self-enforcement mechanism). This is because the relational contract created successfully aligns direct economic benefits with ecological impacts[16]. Fishermen realize that the larger the area of successfully restored artificial reefs, the higher the productivity of their fish catches and the greater the economic turnover from the volunteer tourism sector. NBRC operationalizes this incentive alignment by directly compensating fishermen for every task performed—ranging from structure fabrication, deploying artificial reef units to the seabed, to conducting dive training for international volunteers. As detailed by NBRC Chair (NP2) and local fishermen members (NA1, NA2, NA3, NA4): "Besaran dana yang mereka terima tergantung banyak sedikitnya kontribusi mereka pada pelaksanaan program.", NP2. "Kami yang bertugas mendukung pelaksanaan program membantu mempersiapkan material untuk melawan membuat struktur karang buatan, membuat kerangka besinya, sampai membantu mengangkat struktur karang buatan ke atas perahu. Kami dibayar untuk setiap kontribusi kami.", NA1, NA2, NA3. "Ndak berani kami melanggar aturan organisasi. Ini perikuh nasi kami.", NA4

The alignment of these dual incentives has led the community to voluntarily adhere to the marine protection agreement[17]. This organic self-enforcement is further boosted by secondary economic opportunities generated for the broader Tianyar village community, including homestay provisions, local catering, transport services, and laundry operations managed by local families.

4.3 Collective Accountability, Remuneration, and Contract Flexibility

The specificity of contract aspects is also reflected in the mechanisms of remuneration and internal performance reporting within the organization[18]. Financial and performance reporting among fishing groups in both cases is often conducted periodically thru oral deliberation forums that prioritize communal transparency over formal external audits[19].

In Banyumilir, internal accountability is maintained through regular informal gatherings and member meetings (*Rapat Anggota*). These informal spaces allow open deliberation on organizational strategies, financial constraints, and code of conduct enforcement without creating social friction. As highlighted by a Banyumilir member (BA3) and the Village Secretary (BD2): "Kami kalau kumpul santai begini lebih keluar idenya dan lebih berani

menyampaikannya, dibandingkan pertemuan serius.", BA3. "Mereka kami minta menyampaikan laporan penggunaan dana dan pelaksanaan program setiap akhir tahun. Ini menjadi salah satu cara kami melakukan pengawasan dan pengendalian melekat atas pelaksanaan program Banyumilir.", BD2. Regarding financial auditing, Banyumilir reports its financial statements internally to the board and village leaders (Pelindung), while public reporting is conducted informally via social media (Instagram) and the organizational website.

In contrast, NBRC implements a multi-layered internal audit mechanism. Financial reports prepared by the treasurer are reviewed by an internal Supervisory Committee (Pengawas) before being submitted to the Board of Trustees (Pembina). For public transparency, summary financial and program achievement reports are posted physically on the office bulletin board and published in detailed Annual Reports on their official website. As explained by NBRC's Supervisor (NP5) and Treasurer (NP4): "Kami ditugasi mereview laporan pertanggung jawaban pengelolaan keuangan oleh pengurus. Tanpa tanda tangan kami sebagai bukti laporan telah melalui proses review dari pengawas, laporan keuangan belum bisa diserahkan kepada pembina.", NP5. "Kami sangat terbantu oleh pengawas. Terkadang kami ada kurang teliti membuat laporan. Mereka membantu memberi catatan perbaikan.", NP4.

The compensation or remuneration system for fishermen is not locked into fixed-wage contracts, but rather uses a profit-sharing system or program participation-based incentives that are mutually agreed upon. At Banyumilir, where conservation activities have not yet generated financial surplus, the leadership covers operational deficits out of personal funds, while members contribute monthly dues and share profits directly from incidental dolphin-watching tours. As stated by Banyumilir Chair (BP1) and members (BA2, BA6): "Saya sendiri yang masih harus norokin untuk gaji pengurus. Pendapatan belum bisa menanggung gaji pengurus, hanya cukup untuk operasional kegiatan restorasi saja... Penentuannya melalui mekanisme rapat anggota supaya ndak ribut.", BP1. "Kami paham usaha restorasi ini belum sampai tahap menghasilkan surplus. Jadi kami urunan untuk mendukung kegiatan operasional.", BA6.

At NBRC, remuneration is structured via standardized task rates established by the foundation board. Members receive compensation based on their specific role in volunteer programs, alongside profit opportunities from independent micro-enterprises (such as guiding, dive certifications via PT Bahari Citra Dewata, and weekend volunteer tours). The flexibility of this work contract is essential for coastal social entrepreneurs to ensure that the financial surplus obtained can be maximally reallocated to fund marine environmental conservation programs[3]. At NBRC, this contractual flexibility and surplus reinvestment model directly enabled the deployment of over 30,000 artificial reef units and funded secondary conservation initiatives, including turtle hatcheries and community plastic recycling workshops.

5. Comparison

Table 1. Governance Paradigm Comparison Matrix

Governance Dimension	Conventional Paradigm	Coastal Social Enterprise Model
Primary Theory	Agency / Stewardship Theory	Social Network & Hybrid Theory
Contract Structure	Rigid Formal Contracts	Actor-Segmented Dual Governance
Enforcement Mechanism	Legal Litigation / Financial Fines	Incentive Alignment & Custom Norms
Primary Driver	Profit / Cost Minimization	Socio-Ecological Value Creation

The comparison presented in the table above highlights three fundamental theoretical novelties and empirical nuances regarding how network governance and contract specificities operate within coastal social entrepreneurship. First, unlike conventional business organizations that treat formal contracts and relational governance as binary opposites or functional substitutes, coastal social enterprises in Bali establish an actor-segmented governance framework. The empirical evidence demonstrates that contractual governance must be differentiated based on actor typology. Relationships with institutional and bureaucratic actors—such as government entities (e.g., Ministry of Marine Affairs and Fisheries and Regency Fisheries Services), international donor agencies, foreign academic institutions, and corporate vendors—are governed through vertical formal contracts. These written, legally binding instruments are essential for establishing institutional legitimacy, securing space-use permits, ensuring grant fund accountability, and satisfying external audit

mandates. Conversely, internal operational dynamics with local community actors including local fishermen, customary village leaders (Bendesa Adat), homestay operators, drivers, and local caterers are governed through horizontal relational contracts. Grounded in Social Network Theory, these community-level agreements rely on high social density, interpersonal trust, mutual reciprocity, and operational flexibility. Applying rigid formal contracts to local community actors often creates bureaucratic friction, whereas relational commitments foster local ownership, adaptive capacity, and active participation in marine conservation.

Second, the theoretical novelty of this model is prominently reflected in the mechanism of rule enforcement, which shifts from external legal coercion to the strategic alignment of dual socio-ecological incentives. In traditional corporate governance, contract enforcement relies heavily on external legal sanctions, commercial litigation, or punitive financial damages. In contrast, coastal social enterprises achieve rule compliance through internal incentive alignment and customary social mechanisms. In the case of Banyumilir, rule enforcement is anchored in customary village governance (*pararem/awig-awig*), internal peer monitoring, and non-financial safety nets such as providing institutional legal aid protection to members during disputes which strengthens organizational loyalty and collective compliance. In the case of North Bali Reef Conservation (NBRC), rule adherence operates organically via a self-enforcement mechanism without state legal coercion. This self-enforcing compliance occurs because the implemented relational governance successfully integrates the community's direct economic livelihoods with ecological restoration outcomes. Local fishermen voluntarily comply with marine sanctuary boundaries and coral protection agreements because their immediate financial income (e.g., paid tasks as dive assistants, structure builders, homestay hosts, and weekend tour guides) and long-term ecological benefits (e.g., increased fish stocks and catches) are intrinsically tied to reef health. Compliance becomes self-enforcing because damaging the marine ecosystem directly threatens their household income.

Third, the governance model demonstrates a fundamental reorientation from private wealth accumulation to socio-ecological value creation. While mainstream corporate governance focuses on transaction cost minimization to maximize private shareholder wealth, coastal social enterprise governance operates to maximize dual socio-ecological impacts. The operational flexibility inherent in horizontal relational contracts enables these hybrid organizations to reallocate financial surpluses derived from volunteer program fees or ecotourism activities directly back into community development and marine conservation assets. As demonstrated by NBRC, this flexible governance structure allowed the continuous reinvestment of operational surpluses into scaling up artificial reef deployments (reaching over 30,000 structures), establishing community plastic recycling workshops, and funding turtle hatcheries, thereby strengthening long-term socio-ecological resilience in coastal communities.

6. Conclusions

The specificity of contract agreements in Bali's coastal social entrepreneurship lies in the integration between formal-vertical contracts (securing institutional legitimacy) and relational-horizontal contracts (driving local participation). Networked governance models (such as NBRC) outperform rigid top-down models by fostering autonomy, self-enforcing contract compliance, and sustainable socio-ecological resilience.

Author Contributions: Author Contributions: Kadek Januarsa Adi Sudharma conceptualized the study from a legal and institutional governance perspective, conducted the analysis on formal versus relational contract agreements, and drafted the legal framework regarding coastal resource rights. Ni Luh Putu Mahyuni designed the research methodology, executed data analysis concerning internal accounting, remuneration structures, and incentive alignment mechanisms, and evaluated the economic sustainability of the social enterprises. Both authors participated in field data collection, manuscript revisions, and approved the final submitted version.

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