# Unraveling cultural economies and power dynamics: an in-depth anthropological study of anchovy fishing in north sumatran coastal commumity

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**Abstract.** This study explores the power dynamics in the anchovy fishing system of Tanjungbalai, North Sumatra, focusing on the interactions between tekong (ship captains), crew members, and midleman. Using an ethnographic approach, researchers immersed themselves in the fishing community, conducting participatory observations, in-depth interviews, and gathering secondary data from transaction records and debt contracts. The findings reveal that power relations are heavily influenced by market mechanisms, with middlemen emerging as dominant figures in the production chain. By controlling prices and distribution, middlemen extract surplus value from the catch without providing fishing gear or participating directly in the fishing process. This situation is exacerbated by a debt capital system, where fishermen borrow start-up capital from middlemen and repay it with their catch. This system perpetuates a cycle of debt, forcing fishermen to remain dependent on middlemen. The research concludes that this production model creates a "vicious circle," trapping fishermen in economic dependence and declining welfare while middlemen continue to consolidate their power.

## 1 Introduction

This study delves into the intricate power dynamics within the anchovy fishing industry in Tanjungbalai, North Sumatra, focusing on the interactions between the tekong (ship captain), the crew, and the middlemen. As a crucial fishing hub in Indonesia, Tanjungbalai is particularly renowned for its anchovy exports. Yet, beneath this veneer of economic prosperity lies a complex web of power relations and systemic injustices that this research seeks to unravel.

The evolution of Tanjungbalai's fishing system over the decades has been anything but straightforward. Technological advancements in fishing gear and refined strategies have indeed bolstered productivity, but the role of middlemen within this system remains

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pivotal. These middlemen serve as key regulators, exerting considerable control over the pricing and distribution of anchovies, thereby dictating market dynamics. Their influence extends beyond mere economic transactions; they orchestrate the flow of goods, determining which regions receive the catch and at what cost [1].

Middlemen's control over prices and distribution allows them to extract significant value from the fishermen's labor without contributing directly to the fishing process or providing equipment. Compounding this issue is the capital debt system, wherein fishermen, often lacking access to alternative funding sources, are compelled to borrow capital from middlemen, repaying these loans through their catch. This debt cycle perpetuates the fishermen's dependency on middlemen, locking them into a system where their economic agency is severely constrained [2].

Despite often being perceived as benevolent entrepreneurs, middlemen's roles are far more complex. They do not only manage the economic aspects of the fishing industry but also exert substantial influence over the decisions of fishermen. By controlling access to crucial capital, middlemen can coerce fishermen into participating in an inequitable system. Furthermore, middlemen frequently act as mediators in conflicts between the tekong and the crew, a role that, while seemingly neutral, often serves to consolidate their power over the entire operation [3-4]

The systemic entrapment of fishermen within the capital debt system is further evidenced by the analysis of secondary data from transaction records and debt contracts. These documents reveal the exorbitant interest rates imposed by middlemen, exacerbating the debt cycle and deepening the fishermen's financial dependence. As a result, breaking free from this system would entail severe economic repercussions, making it nearly impossible for fishermen to seek alternative livelihoods [5-6].

This study's exploration of these dynamics can be contextualized within broader theoretical frameworks, such as alternative economic theories. Marxist theory, for instance, provides a lens through which to understand how the capitalist system exploits the labor of fishermen for the benefit of the capitalist class, represented in this context by the middlemen (Marx & Engels, 1848). Additionally, this study intersects with government policy, particularly Indonesia's strategic plans aimed at improving the welfare of coastal communities and addressing inequalities within the fisheries sector [7].

In Tanjungbalai, despite its economic potential and relatively high Human Development Index (HDI), challenges persist, such as high poverty rates and entrenched economic dependence on middlemen. Previous research has highlighted the uniqueness of power dynamics within fisheries across Southeast Asia, underscoring the significant role middlemen play in the Tanjungbalai fishery system [8]. This study builds on such findings, offering a more nuanced understanding of the local context through the lens of economic anthropology, which examines how fishing communities navigate their social and economic environments [9].

Moreover, international policies also intersect with these local dynamics, as global development initiatives can either reinforce or mitigate the influence of middlemen in the fisheries sector [10]. The historical evolution of Indonesia's fishing industry, marked by the increasingly dominant role of middlemen, further contextualizes the findings of this study, highlighting the long-standing nature of these power imbalances [11].

In sum, this study aims to provide a comprehensive analysis of the power dynamics within the anchovy fishing system in Tanjungbalai. By dissecting the role of middlemen and the intricate relationships between the tekong, crew, and middlemen, this research seeks to contribute meaningfully to efforts aimed at enhancing the welfare of fishermen and addressing systemic injustices within the fisheries industry. The research gap identified herein underscores the need for a deeper understanding of how entrenched economic structures and power relations shape the livelihoods of fishing communities, particularly in the context of ongoing policy interventions and historical developments.

## 2 Methods of research

### 2.1 Research approach

This study employs an ethnographic approach, integrating participatory observation, in-depth interviews, and secondary data collection to comprehensively examine the economic practices, social interactions, and power dynamics within Tanjungbalai's fishing communities. The participatory observation method enables the researcher to immerse in daily fishing activities, attend community meetings, and monitor the anchovy trade at the port. This hands-on involvement is essential for gaining a nuanced understanding of the decision-making processes and power relations at play, as emphasized by Emerson, Fretz, & Shaw [12].

In-depth interviews were strategically conducted with a broad spectrum of key stakeholders in the anchovy fishing ecosystem, including tekong (boat owners), boat crews, middlemen, and other relevant community members. These interviews are designed to elicit detailed insights into the participants' perspectives on power relations, their roles within the production chain, and the implications of the debt capital system on their livelihoods. The semi-structured interview format was chosen to provide flexibility, allowing for the exploration of emergent themes while adhering to a predefined framework [13].

Secondary data collection complements the primary data, involving the analysis of economic transaction records, debt contracts, and other pertinent documents. This data is pivotal for understanding the formal economic structures within the fishing community and validating the findings derived from observations and interviews. Additionally, a comprehensive review of relevant literature, including studies on fisheries economics, maritime community power dynamics, and debt capital systems, was conducted to provide contextual grounding [14].

### 2.2 Data collection

Data collection was carried out over a six-month period, during which the researcher resided in Tanjungbalai, fostering close interaction with the fishing community. Participatory observations were systematically conducted, particularly during key activities such as fishing and port transactions. A total of 19 respondents were selected for in-depth interviews through purposive sampling, targeting individuals with

significant experience and knowledge of the anchovy fishing and distribution system [15].

The data collected from observations and interviews were subjected to thematic analysis. Each interview was meticulously recorded and transcribed to ensure data fidelity. The transcriptions were then analyzed to extract and categorize emerging themes, such as the power of middlemen, the economic dependency of fishermen, and the role of the tekong in the fishing operations. This manual coding process focused on identifying patterns pertinent to the study's objectives.

### 2.3 Data analysis

The data analysis process utilized a thematic approach to identify and interpret patterns of power within the fishing community. This method enabled the categorization of data into thematic clusters that reflect the social and economic dynamics at play. For instance, data concerning the role of middlemen was analyzed to elucidate their control over fish pricing and distribution, as well as the impact of the debt system on fishermen's welfare. Similarly, the role of the tekong was analyzed in the context of their interactions with boat crews and middlemen, highlighting the navigation of power between these groups.

To ensure the validity and reliability of the findings, triangulation was employed by cross-referencing data obtained from different sources, including direct observations, interviews, and secondary documentation. This integrative approach was essential for constructing a consistent and credible representation of power dynamics in Tanjungbalai. Additionally, member checking was conducted with key respondents to confirm that the researchers' interpretations accurately reflected their experiences and perspectives [16].

Through the adoption of a holistic ethnographic approach and rigorous thematic analysis, this study provides a comprehensive examination of the cultural economy and power structures within Tanjungbalai's fishing communities. The findings are anticipated to contribute valuable insights for the development of more equitable and sustainable fisheries management policies in Indonesia and to enrich the field of Economic Anthropology, particularly in the context of maritime communities.

## 3 Result

### 3.1 Power and social relation in anchovy fishing

#### *3.1.1 Tekong's role as operational leader*

The Tekong, serving as the operational leader in anchovy fishing in Tanjungbalai, plays a critical role in the success of fishing operations. More than just a captain responsible for navigation and the safety of the vessel, the Tekong is a strategic leader who determines the timing, location, and methods of capture. In the local cultural context, the Tekong's position is often associated with high social status due to the immense responsibility and expertise required to lead a crew through challenging maritime conditions.

In anchovy fishing, the Tekong must make rapid and accurate decisions regarding weather patterns, ocean currents, and fish behavior. These decisions are not only crucial

for securing a successful catch but also for ensuring the safety and livelihood of the entire crew. According to Bailey [16], Tekongs in traditional fishing communities often face pressure to balance optimizing catches with maintaining good relations with both the crew and the boat owners. Furthermore, the Tekong must navigate the economic pressures exerted by middlemen, who frequently demand specific catch quotas [17].

The Tekong's decision-making is deeply influenced by their experience and knowledge of the sea, fishing techniques, and anchovy behavior. Additionally, they must possess strong managerial skills to lead a crew that often comprises family members or community peers. This social dynamic adds complexity to the Tekong's role, requiring them to maintain harmony and solidarity among the crew while striving for optimal catches [18-19].

However, the Tekong's autonomy is constrained by external pressures, particularly from middlemen who control access to markets and capital. These middlemen often impose catch targets, compelling the Tekong to maximize the haul even under suboptimal conditions. This pressure forces the Tekong to make difficult decisions, such as extending fishing hours or venturing out in hazardous weather, to meet the demands of the middlemen [14, 20].

### *3.1.2 The working relationship between the tekong and the crew*

The relationship between the Tekong and the crew in Tanjungbalai's anchovy fishing operations reflects a complex, hierarchical power dynamic. As the operational leader, the Tekong exercises significant control over the crew during fishing expeditions, yet this authority extends beyond formal power. It is also shaped by social and cultural factors that bolster the Tekong's status as a respected figure within the [21].

The crew, often drawn from the same social milieu as the Tekong, typically shares personal ties with them, such as familial or friendship bonds. These relationships foster strong solidarity but can also place the crew in vulnerable positions. They rely on the Tekong not only for their safety at sea but also for their economic welfare, as their livelihood is contingent on the fair distribution of the catch. This dependency grants the Tekong considerable influence over the crew, which can be leveraged to mobilize them in challenging conditions or to maintain discipline aboard the vessel [22].

Nevertheless, the Tekong's power is not absolute. To ensure smooth operations, the Tekong must maintain the trust and loyalty of the crew. If the Tekong is perceived as unfair in profit-sharing or incompetent in leadership, crew morale may decline, disrupting the harmony on board and potentially diminishing the effectiveness of the fishing operation. Consequently, many Tekongs adopt a paternalistic leadership style, positioning themselves as protectors and guardians of the crew's well-being [14, 23].

Despite these efforts, conflicts can arise between the Tekong and the crew, particularly regarding the division of the catch. The Tekong has the authority to allocate shares based on each member's contribution, but this process is inherently subjective, leading to potential dissatisfaction among crew members who feel undervalued. Such tensions, while often subdued, can undermine cooperation on the vessel and negatively impact the overall success of the fishing expedition [24].

## 3.2 The dominant role of middlemen

### *3.2.1 Control of prices and distribution by middlemen*

Middlemen play a dominant role in the production and distribution chain of anchovies in Tanjungbalai. Acting as intermediaries between fishermen and the market, they exert considerable control over both the pricing and distribution of anchovies. In this economic structure, middlemen function as powerful gatekeepers who, through their control over capital and market access, effectively determine the livelihoods of fishermen.
A key finding of this study is the way middlemen exploit their position to dictate the purchase price of fish from fishermen, often offering prices far below market value. This is made possible by the fishermen's dependence on middlemen for access to both markets and capital. Crona et al [25] highlight that in many traditional fishing regions, middlemen wield significant power in setting commodity prices due to their control over the flow of goods from producers to consumers. In Tanjungbalai, middlemen capitalize on this dependency to maximize their profits, purchasing fish at low prices from fishermen and reselling it at substantial margins.

Beyond pricing, middlemen also dominate the distribution of anchovies, determining where and when the fish is sold. They typically control extensive distribution networks that span local, national, and even international markets. By managing the supply chain, middlemen can manipulate market availability to influence prices, thereby enhancing their economic leverage over fishermen. This control leaves fishermen in a weak bargaining position, forcing them to accept the prices set by middlemen, even when these prices are economically disadvantageous.

### *3.2.2 Mechanisms for extracting surplus value from the catch*

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### 3.3 Debt capital system and its impact

#### *3.3.1 The debt cycle that ties fishermen to middlemen*

The debt capital system that binds fishermen and middlemen in Tanjungbalai is a critical factor affecting the welfare of fishermen. Capital is essential for fishermen to undertake fishing operations, especially given the significant costs required for anchovy fishing. For instance, the expenses needed for a 3 to 5-day fishing expedition can reach 5 million rupiah, covering diesel, salt, gas, food supplies, and wages for the crew (ABK). Additionally, ship maintenance and repair costs further strain the financial resources of the boat owners. Under these challenging economic conditions, many fishermen have no choice but to borrow capital from middlemen.

However, this lending system often becomes a trap, ensnaring fishermen in a cycle of debt that is difficult to escape. Fishermen's reliance on middlemen for capital places them in a precarious position. Middlemen not only provide the necessary funds but also control the pricing and distribution of anchovies, effectively determining the fishermen's income. Consequently, fishermen are often compelled to accept the prices set by middlemen, even when these prices are significantly below market value. As a result, the income generated from their catch is insufficient to repay the borrowed capital, leaving them perpetually in debt [27-28].

This situation exemplifies the "vicious cycle" of debt, where fishermen must continually borrow funds to go to sea, yet their earnings are inadequate to clear their debts. In some instances, the escalating debt burden even forces fishermen to abandon fishing altogether or to take on additional loans, further exacerbating their financial plight. Research indicates that this debt cycle not only deteriorates the economic conditions of fishermen but also deepens their dependence on middlemen, thereby reinforcing the middlemen's dominance in the anchovy production and distribution chain

A similar dynamic is observed in the relationship between boat owners and their crew. Although crew members receive daily wages, they often find themselves ensnared in the same debt system as the boat owners. Crew members facing financial difficulties may resort to borrowing from middlemen, further entrenching the debt cycle within the fishing community.

#### *3.3.2 Economic and social implications of this dependence*

The economic dependence of fishermen on middlemen has far-reaching implications, extending beyond financial challenges to affect all aspects of their lives, including economic and social dimensions, and creating a deeply imbalanced power dynamic within the fishing community.Economically, the reliance on debt capital and price controls imposed by middlemen leads to a decline in fishermen's overall welfare. When catches are insufficient to cover operational costs, fishermen are often trapped in mounting debt. This not only reduces their disposable income for family needs but also hinders their ability to invest in better fishing gear or improve the condition of their

boats. Consequently, fishermen often find themselves in a stagnant economic state, with limited opportunities to enhance their livelihoods.

The social repercussions of this dependence are equally profound. The economic reliance on middlemen fosters a power dynamic where middlemen wield significant control over the economic destiny of fishermen. In many cases, fishermen feel compelled to accept the unfavorable terms set by middlemen, even when these terms are detrimental to their interests. This dependency also affects social relations within the fishing community, where those with closer ties to middlemen or better access to capital tend to hold stronger positions, while others become increasingly marginalized.

Moreover, this dependence reshapes the power structure within the fishing community itself. Boat owners with access to capital from middlemen tend to wield greater influence compared to crew members and other fishermen. They control crucial decisions, such as when to set sail, how much capital to allocate, and how to distribute the catch. This reliance on debt capital reinforces existing social hierarchies, where those with access to capital dominate, further entrenching inequalities within the community.

## 4 Conclusion

In conclusion, this study uncovers how the debt-based capital system binding fishermen to middlemen in Tanjungbalai perpetuates a cycle of harmful economic dependency and deepens social inequities within the fishing community. The resulting power dynamics, in which middlemen control both the pricing and distribution of catches, entrap fishermen in an escalating debt spiral, leading to a continuous decline in their well-being. This dependency not only hinders fishermen's ability to elevate their living standards but also solidifies the existing social hierarchy, where middlemen and boat owners hold dominant positions in decision-making and profit distribution. To address these issues, targeted policy interventions are essential to empower fishermen, reduce their reliance on middlemen, and promote greater economic equity, ultimately improving the socio-economic conditions of the Tanjungbalai fishing community.

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