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Conflict and Security Vis-a-Vis Sustainability of Marine Resources in Zamboanga Peninsula

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Abstract

Fishing is the primary source of income and economic activity in the Zamboanga Peninsula's coastal barangays. However, due to several conflict and security challenges, such as the presence of armed groups in certain coastal barangays and their management of marine resources, the sustainability and patterns of fishing as a critical economic activity have been severely harmed. Additionally, the Philippine government's annual closed fishing season, which runs from December 1 to March 1 every year, exacerbates the fishermen's difficulties. The purpose of this study is to examine how the presence of armed groups affects poverty and structural inequality in fishing communities affected by armed conflicts, as well as how their governance of maritime resources contributes to poverty and structural inequality. Conflict and security are critical components of this study. It illustrates the degree of violence experienced by individuals and households in their respective barangays. Quantitative and qualitative methodologies are utilized to elucidate the relationship between armed group governance of maritime resources and armed conflict. The findings of the study demonstrate the critical role of armed groups in resource management in the Zamboanga Peninsula's coastal barangays, as well as the impact of their presence on the economic activities of residents and households. Additionally, the findings of the study indicate that security and conflict are significant factors in the economic activities of individuals and households in barangays. Additionally, the presence of armed groups in barangays influences the economic activities of these individuals and households, implying that these armed groups wield power over the populace and barangays. Because the armed groups are composed of fishermen, adequate education should be provided to ensure their long-term viability. Additionally, it is recommended that these barangays receive basic services and facilities.

Keywords: armed group governance, sustainability of marine resources, fishing, economic activity, conflict and security, armed conflict, fishing communities

1. Introduction

Numerous practices regarding resource sustainability have been a source of contention throughout the world for more than three centuries. One of the issues that urgently require examination is fishing practices on the Zamboanga Peninsula, fishing production, and its relationship to armed conflict. Mindanao is the country's primary fishing region and a major producer of sardines. Its production accounted for 65% of the national catch in 2017. Fishing is a highly seasonal activity, as it is dependent on natural reproduction cycles and, more recently, on fishing regulations, such as the Zamboanga closed fishing season policy (DA-DILG Administrative Order No. 1) implemented in 2011. The fishing industry is concentrated on the

Zamboanga Peninsula and Northern Mindanao, with significant intra-annual variation. Currently, five Non-State Armed Actors (NSAAs), the MNLF, the MILF, the BIFF, and Abu Sayyaf, the latter three of which evolved from the MNLF, as well as the NPA, are actively pursuing a political and violent agenda. Peace talks between the Philippine government and the MNLF and MILF began in 1996 and have been ongoing since 2012, with varying degrees of success, as demobilization has been ineffective, and negotiations have motivated the most radical combatants to desert and form new armed factions.

The Zamboanga Peninsula has long been recognized as a significant producer of marine products, with Zamboanga City dubbed the Sardine Capital. This is because a large portion of the produce originates in the aforementioned city. Nonetheless, armed conflicts in the aforementioned region jeopardize the region's fishing practices and viability. To mitigate, detailed data at the municipal level are required to gain a better understanding of fishing patterns on the Zamboanga Peninsula and their relationship to armed conflict.

The purpose of the study is to bring together policymakers, community leaders, fishermen, and government employees responsible for programs affecting fishing communities, academe, and other significant stakeholders in the community to gain a better understanding of armed group governance and the sustainability of Mindanao's environmental resources. The following objectives have been established to that end:

- To collect data on fishermen's households, spending and consumption patterns, fishing activities, conflict, and security, as well as community information, through surveys and profiling.
- To explore and collect data on the needs assessment of fishing households and communities, the assessment of roles in marine resource management, and finally, policy suggestions and recommendations pertinent to the study.

2. Method

The study employed a descriptive mixed methodology in order to gain a better understanding of armed conflicts and fishing patterns in the Zamboanga Peninsula Region. Furthermore, the study used a survey tool, focus group discussions, and an interview guide to collect data from 1500 randomly selected households and fishermen, selected government officials, and military personnel who were chosen based on specific criteria. Additionally, the study analyzed documents and content in order to gain a better understanding of fishing patterns and armed conflicts in the aforementioned region. Statistical tools such as weighted mean and percentages were used to gain an understanding of various aspects of government regulations, with a particular emphasis on BFAR Administrative Circular (BAC) No. 255, s. 2014. Additionally, it is worth noting that no ethical violations occurred during the study's conduct. All respondents were educated about the consent process, and 100% of randomly selected participants expressed no objection to participating in the study.

3. Results and Discussions

The survey's goal is to learn how the presence and governance of armed groups affects the management of environmental resources in conflict zones, which in turn helps to alleviate poverty and structural inequality in fragile societies. The survey was conducted within three months in three provinces (Zamboanga Sibugay, Zamboanga del Norte, and Zamboanga del Sur of Zamboanga Peninsula.

The study surveyed 1,500 households, the majority of whom were Bisaya and lived in socialized housing units with a galvanized roof and a wood (40%) or bamboo (37%) wall. Their drinking and cooking water is primarily obtained from dug wells (30%). Of the 1,500 household heads, approximately 55.4 % are

between the ages of 31 and 50, have completed elementary school (58%), and are mostly married (89%). In terms of health, roughly 77% of household heads reported experiencing muscular pain.

The head of the household lives with 4-6 members (59 percent), all of whom are over the age of 20 and mostly single (62%). Almost every member of the household (99%) attended school. However, due to financial constraints, only 88 percent of household members are currently enrolled in school.

Around half of respondents (49 percent) reported being able to work in the last year. The vast majority of them (87%) did not apply for the job and have never worked in the commercial fishery. Around 80% of respondents were municipal fishermen, working 10-12 months a year, 22-30 days a month, and 6-10 hours a day in their boat with 1-2 buddies. During the off-seasons, 34% of respondents worked in jobs unrelated to fishing. Among the few off-season primary jobs mentioned are seaweed farming (33%), owning a business (21%), and agriculture (11%).

Respondents preferred to work 22-30 days a month (40%) and 6-10 hours a day (53%) in this primary non-fishing occupation, either self-employed (25%) or under a written contract (59%) for a monthly salary of Php 5,000.00- Php 10,000.00. (49%). Some fishermen (41 percent) were paid Php 5,000.00 or less for their work. According to the 1,230 (82%) fishermen, these payments translate into a daily income of 500 pesos or less. To meet their monthly expenses of PhP14,051, or PhP456 per day, one fisher folk must catch and sell 23kg of tamban at a price of PhP20/kg.

According to the survey, eighty-nine percent (89%) of the one thousand five hundred (1,500) respondents rely on fishing as their primary source of income. They typically operate small fishing boats measuring approximately 11ft-20ft in length (72%) and manned by 1-2 people per boat (81%). Their preferred fishing companions are family members (55%), followed by neighbors (38%). Their companions also communicate in the same dialect as they do at home (97%). The most frequently used gears are hook and line and multiple hook and line (54% each), followed by net types such as gillnets, bottom set gill nets, and drift gill nets (40% each). Commonly caught species include big-eye scads, mackerels, tread-tail bream, groupers, rabbit fish, and other demersal fish. This could be attributed to the gear used and the higher value of the fish. Despite their low value, sardines are also a common cause fish, most likely due to their abundance in the area. Throughout the three-season, they catch an average of 11-20 kilograms of fish per week (35%), while some catch 21-30 kilograms (20%). The implementation of the closed fishing season benefited fishermen as well, as evidenced by an increase in fishing technologies and assets, as well as catch volume. Additionally, the results indicated that fishing input costs are lower during the closed season.

Most of the products are sold to the traders, then to the local markets. Some are sold directly to community households, with household members consuming a portion. The household heads (71%) are the most frequent sellers of fish, followed by their spouses (22.3%). They typically sell their catch to the same trader each day (70%) while 23 percent sell it directly to consumers. The highest price they could demand is Php 115/kilogram in local markets, followed by Php 110.00/kilogram from traders. Eighty-four percent (84%) of fishermen sold their catch at a loss or at a discount. Forty-four percent (44%) of respondents stated that the price is determined by the traders, twenty-two percent (22%) stated that the price is negotiated between the traders and the fishers, and thirty-four (34%) stated that the price is dictated by the fishers themselves. The respondents are generally familiar with the trader who purchases their product on a regular basis (94%). Forty-six percent (46%) of the fishers answered that the traders speak the same dialect as they do, and forty-one percent (41%) replied that they live in the same barangay or community. The traders are frequently regarded as friends of the fishermen (62%). Reduced market access is the

primary sanction for fishermen who sell their catch to other traders (72%). When asked whether the traders were affiliated with the insurgent group, fourteen percent (14%) of respondents responded "YES."

Fishermen are generally aware of their fishing rights. Eighty-eight percent (88%) of them believe that they have the authority to decide who, when, where, and how to fish. Despite their knowledge of their fishing rights, six percent (6%) of respondents encountered restrictions on their ability to fish, despite the fact that these restrictions occur infrequently and have been declining dramatically since 2015. Pirates are the most common actors in incidents, accounting for 50% of incidents, followed by other Insurgent Groups (IG) at 26%. Ten percent (10%) of fishermen also stated that they pay taxes to insurgent groups, the majority of which are pirates (80%), MILF (18%), and MNLF (2%). Taxes are typically in kind (fish) and fixed quantity and are frequently collected onboard. Around forty-nine (495) said they are harassed if they do not pay taxes, while forty percent (40%) said that there are no sanctions, while the rest experienced physical punishment (23%), seizure of a boat engine (5%), financial penalty (3%) and even execution (0.1%). In general, fishermen disagree with the insurgent group's claim to have the authority to regulate municipal waters, commercial waters, and trade.

Forty-six municipal ordinances confirm the presence of a commercial fishing vessel in municipal water (46%). However, fifty-eight (58%) of respondents stated that the presence of commercial fishing boats has no effect on their catch. In terms of commercial fishing boats' presence in municipal waters, only fifteen percent (15%) said they are very present, thirty percent (30%) said they are present, and thirty-nine percent (39%) said they are absent. The majority of fishermen (68%) believe the municipal government protects municipal waters, while one percent (1%) believe insurgent groups do. However, seventy-two percent (72%) of them stated that their area does not have a closed fishing season. Forty-nine percent (49%) of fishermen believed that fish stocks had decreased over the previous decade, while thirty-seven percent (37%) believed they had remained stable. The most frequently cited causes of stock decline are illegal fishing (44%), overfishing (23%), and fishing in restricted areas (18%). While illegal fishermen are primarily responsible (37%) for stock decline, commercial fishermen are also primarily responsible (37%) for stock stability (30%). Fishermen believe that strict enforcement of the law, the imposition of a fishing ban, and the establishment of marine protected areas and fish sanctuaries will aid in the rehabilitation and expansion of the fish stock.

The study involved sixty (60) coastal barangays. Community evaluation of the sixty (60) barangays reveals that the workforce of the involved communities is primarily engaged in fishing (55%), agriculture and livestock (28%), and involvement with Insurgent Groups (IG) (6%), with the remaining eleven percent (11%) engaged in other activities. Despite being coastal communities where the majority of households rely on fishing for their livelihood, sixty-eight percent (68%) of barangays lack permanent fish markets and forty-eight percent (48%) lack landing centers. The distance between the landing center and fish markets is less than one (1) kilometer (32%), between one (1) kilometer and four (4) kilometers (43%), and above four (4) kilometers (25%). The most frequently used mode of transport to transport their produce from the landing center to the nearest market is by motorcycle/bike or other motorized land vehicle (37%), with an average travel time of 21.5 minutes, while the longest travel time is more than an hour by boat.

Fish traders/middlemen dominated the trade in fish markets (83%). Bisaya represents the majority of these traders (51.7%), followed by Tausug (23%), Maguindanaon (20%), Ilonggo (8.3%), and Subanen (8.3%). Despite the diversity of traders, eighty-five percent (85%) of community respondents believe that rules

and sanctions govern which ethic group is permitted to trade fish. Additionally, the results indicated that the maximum number of people involved in the market chain was more than four (48.3%).

Fishermen have less access to a permanent market; second, some lack access to landing centers, and the distance between the landing center and the market is considerable, resulting in increased transportation costs. These concerns would compel fishermen to sell their catch to local traders, which would be less advantageous for fishermen due to a lack of buyer competition. Another issue is the existence of regulations governing who is permitted to sell fish in the market. This could be in reference to "rent" for stalls and other documentary requirements or contracts that require capital that fishermen cannot afford or are too burdensome to meet, leading them to believe that other ethnic groups are willing to trade in the market. The primary concern here is the number of people involved in the fish trade. The more participants in the market chain, the less advantageous it is for fishermen. Fish has a market price that varies by species, and because fish is a perishable product, it must be sold immediately. As a result, the more people who are personally involved in the market chain, the more people who will share in the profit, and each profit they earn reduces the fisherman's income. This could even result in a fisherman selling his product at a loss.

Conflict and security are critical components of this research. It depicts the level of violence experienced by individuals and households in their respective barangays. Conflict and security outcomes provide readers with a vivid understanding of how armed groups manage resources in their respective barangays and how their presence affects the economic activities of individuals and households within those barangays. The data reflect violent events in the preceding year, actions taken in response to armed conflict, relations with insurgent groups (IGs), the safety status of barangays, the reasons for unsafe barangays, mechanisms for resolving disputes, land-related misunderstandings between actors, non-land-related misunderstandings between actors, IG involvement in the preceding five (5) years, the nature of IG involvement, and violent incidents. Additionally, as evidenced by the data, the study's findings indicate that security and conflict play a significant role in the economic activities of individuals and households in barangays. Additionally, the presence of IGs in certain barangays influences their economic activities, as these IGs have an effect on the people and barangays.

The community survey included 240 barangay leaders at a rate of four leaders per barangay in 60 randomly selected barangays. The leaders were chosen based on their knowledge and involvement in the barangay and are also familiar with the socio-economic, cultural, political, peace, and security background of the barangay. Around seventy-eight percent (78%) of the barangays studied are home to less than 900 households. The majority (95%) of these barangays have a population that speaks "Bisaya," followed by Subanen (58%) and Tausug (57%). All barangays have day-care centers. Almost every municipality has a public primary school, a barangay hall, a mosque or a church, as well as a pre-school or kindergarten. However, police stations (only 17%) and the office of the center for social welfare and development are infrequently present (12%). Hanging bridges (18%) and makeshift bridges (10%) are uncommon, as they may not be necessary in all barangays.

In terms of basic services and facilities, electricity is available in almost all barangays, at 93% in 2019, up 10% from 2005. Additionally, the drinking water system improved from 58 percent in 2005 to 82 percent in 2015, despite a peak of 83 percent in 2015. While public schools, barangay tanods or CAFGUs, and community organizations are also prevalent, police stations, army bases, fish refrigeration, fish processing, and ice plants, as well as fishing authorities, are less prevalent. These fishing facilities are not commonly

found due to their high investment costs. Additionally, these barangays lack boat repair, motor repair, and gear repair facilities.

The barangay council (100%), the barangay peace and order council (98%), the barangay justice system (85%), and the people's organization are the barangay's common decision-making bodies. The predominant occupation in these barangays (55%) is fishing, as these are coastal barangays with some agriculture and livestock (28%) and other activities (11%). Only 6% of the population is involved in insurgent group activities.

4. Conclusion

This study sheds light on the complex and intertwined issues affecting the region's marine ecosystems. It highlights how conflict and security concerns have profound impacts on the sustainability of marine resources, which are vital in the local communities' livelihoods and the broader ecological balance. Sustainable practices are often compromised due to illegal fishing, territorial disputes, and inadequate enforcement of marine protection laws. To address these challenges, there is a need for a multifaceted approach that includes strengthening governance, enhancing community engagement, and fostering cooperation among various stakeholders. Ensuring the sustainability of marine resources in the Zamboanga Peninsula not only requires tackling immediate security issues but also promoting long term environmental stewardship and resilience. Future policies must balance socio-economic needs with ecological preservation, ensuring that marine resources are managed in a way that supports both human and environmental being. Also, a sustainable livelihood programs must be provided by the government to encourage armed groups to put down their arms and be part of the society where they are free and protected.

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