

Value Chain Analysis of “Ulob” (Makaira Mazara/Blue Marlin) in Partido, Camarines Sur, Philippines

Margarita de Sagun Tipanero

Partido State University, Philippines

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ABSTRACT

This research looked at its value chain in the Partido District in Camarines Sur, Philippines. It used quantitative and qualitative methods to conduct descriptive and narrative research strategies. Several actors are involved in the production, distribution, and marketing. We have already established eight (8) chains, each with unique dynamic relationships. Respondents are paralarwod (fisherman), middleman/wholesaler, retailer, and key informants. The researcher used value chain mapping, descriptive statistics, and cost-and-return analysis. The study identified margins in the financial yields. Financial literacy is essential for overcoming disruptions in financial gains and minimizing revenue losses. We highly recommend a thorough evaluation of the application of RA 10645 or RA 8550 to sustain the ability of all or any actors in the chain to make a profit, especially during unyielding times. Actions from various governmental and non-governmental organizations play a crucial role in enhancing "ulob" trade and improving the financial situations of the actors involved. Partido State University, the only state university in the Partido area, may also use the data to initiate community projects that aim to impart information and skills on how the chain's actors can better budget and save money. National and/or local governments may invest in capacity building in the Partido area to preserve “ulob” production and establish processors.

Keywords: Ulob/blue marlin fish/Makaira Mazara, fish industry/fish commodity, cost and return analysis, value chain/value chain analysis, Lagonoy Gulf/Partido/Camarines Sur/Bicol/Region V/Philippines

INTRODUCTION

Value chain analysis (VCA) is constructed in multiple phases (Hellin and Meijer, 2006). VCAs include all of the activities and services required to get a product or service from creation through sale in its end markets (Kaplinsky and Morris, 2008). The actors or operators in the value chain, the enabling environment (infrastructure, laws, institutions, and processes that constitute the market environment), and the repair providers (business or extension services that support value chain activities) shape the entire market map. We must explore the critical components of the value chain, including costs, benefits, and factors that influence the linkages between the various actors (Dooren, 2005). These components contribute to determining the efficiency of the value chain and how well it is operating (FAO, 2006). According to Meijer and Hellin (2006), the most significant components are value chain actors, infrastructure, and legislation, as well as the organizations and procedures that create the market environment (the enabling environment) and the service providers that facilitate value chain operations.

VCA is a useful tool for researching the industry, particularly supply-side constraints (Rogan et al., 2010). Kaplinsky, R. Value chain analysis can assist in the development and implementation of policies, as stated by Kaplinsky, R. (2000). "Ulob" (the local name for Makaira Mazara, or blue marlin) is also known as a blue water fish because they spend the majority of their lives at sea.

They are among the fastest fish in the water, preferring warmer surface waters where they feed on mackerel and tuna, though they will also go deep to eat squid, slicing through dense schools with their spears before returning to consume their shocked and injured victims. They are also highly migratory, traveling hundreds or even thousands of miles to follow warm ocean currents.

When hooked, "Ulob" fights fiercely. People consider its meat a delicacy, particularly in Japan, where they eat it raw as sashimi. Overfishing is occurring in the Atlantic. (National Geographic, 2015). This is also happening in Partido, Camarines Sur, Philippines.

The study recognized the potential for sustainable fishing techniques, including improving small-scale fishermen's livelihoods; boosting resource efficiency; promoting responsible consumption and production; and fostering stakeholder engagement. Therefore, we grounded the study in the following sustainable development goals: SDG 14 (Life Below Water), SDG 1 (No Poverty), SDG 8 (Decent Work and Economic Growth), SDG 12 (Responsible Consumption and Production), and SDG 17 (Partnerships for the Goals). We apply value chain analysis to Ulob's operations in the Partido area of Camarines Sur, Philippines, to identify and analyze the primary and supporting activities.

Understanding the various players' relationships and roles will largely assist them in deciding strategies to increase margins and costs (Porter, 1998). There are also a variety of arrangements and channels in the system that may cause players to get confused about which channel to use or which investment to make. As a result, they are unable to determine whether or not their existing activity is profitable.

Statement of the Problems/Objectives

The statement of problems/objectives aims to analyse the existing value chain of "Ulob," also known as Makaira Mazara/Blue Marlin. We are conducting the study in Partido, Camarines Sur, Philippines, with the following specific objectives in mind: Describe the value chain using the following terms: Describe the actors, their roles, and the links in the value chain map. Relationship dynamics among key actors; 2. Determine costs and return of blue marlin production and marketing as well as the value added in different stages in the value chain; 3. Identify constraints and opportunities in the chain.

The Study's Scope and Delimitation

The study focused on the value chain of "Ulob" (Makaira Mazara/Blue Marlin) in Partido, Camarines Sur, Philippines. We have allowed this research project to run from September 2019 to September 2021. The study is delimited to the municipalities of San Jose, Sagñay, Lagonoy, and Goa, in Camarines Sur, because of the COVID-19 pandemic. Among the respondents are the paralawod (local term for fisherman), as well as retailers and middlemen. The study offered insights into the key players and suggested ways to enhance their competitiveness.

Conceptual Framework

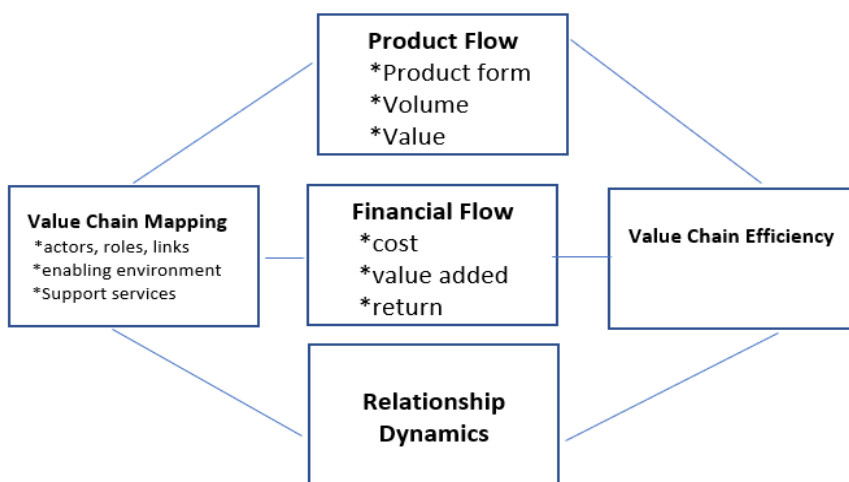


Figure 1. Conceptual Framework of the study

Figure 1 depicts the investigation's conceptual paradigm.

MATERIALS AND METHODS

Value Chain Analysis

Value Chain Map Actors, Roles, and Links

Ulob,” or Makaira Mazara is its scientific name, Blue Marlin in English name. It's also known as Manumbok, Malasugui, and Marlin in different parts of the Philippines. (Ganaden and Gonzales, 1999), while the locals called it as “ulob.” The study takes place in the Partido area (fourth district) of Camarines Sur, a district that produces the "ulob" fish commodity. Because of Covid-19 pandemic, the researcher concentrated in the nearby municipalities of San Jose, Sagñay, and Lagonoy, Camarines Sur, with a significant number of paralawod, while the middlemen, retailers, and end- users in San Jose, Goa, Sagñay, and Lagonoy, Camarines Sur. The study employed a value chain analysis approach to investigate the production and commercialization of blue marlin. The primary actors in the value chain that were identified were fishermen, processors, wholesalers, retailers, and consumers. The responsibilities of each actor were delineated, with a particular emphasis on duties such as fishing, processing, distribution, retailing, and consuming. Links between actors were mapped in order to understand the movement of products and information along the value chain.

Relationship Dynamics among Key Actors

In order to investigate the dynamics of relationships among the main players, representatives from each stage of the value chain participated in semi-structured interviews and focus groups. The researcher utilized qualitative data analysis methods like thematic analysis to identify patterns and themes related to cooperation, communication, power dynamics, and disputes within the value chain.

The study employed a mixed methodology, based on a concurrent triangulation design (single-phase), to gather and process the data separately and simultaneously. The researcher collected data about the "Ulob" using a combination of survey questionnaires, face-to-face interviews, cellular phones, messengers, and online interviews with respondents or key informants. The researcher analyzed the quantitative data through descriptive statistics and cost and return analysis, and analyzed the qualitative data through value chain mapping and narrative analysis

Cost, Return, and Value Addition Analysis

The costs and returns associated with blue marlin production and sale using a combination of quantitative surveys and financial records analysis were evaluated. Both direct costs, like fishing gear and processing fees, and indirect costs, like storage and transportation, were recorded to determine the total cost of production. Market pricing and sales volumes to evaluate the return on investment were implemented. Value addition in various value chain stages was evaluated by comparing the selling prices of blue marlin items at each level to the starting production costs. This analysis shows the value produced at each chain stage and how each actor contributes to the final product.



Figure 2. Photo of “Ulob” and its other names

Constraints and Opportunities Assessment

Stakeholder conversations, focus groups, and qualitative interviews were utilized simultaneously to identify potential opportunities and bottlenecks in the value chain. We identified and investigated limitations, such as limited market access, fluctuating prices, quality control issues, and regulatory barriers. We also examined opportunities for market diversification, value-added product development, technological advancements, and certification programs to identify potential development and expansion within the value chain. programs were also examined in order to identify potential opportunities for development and expansion within the value chain.

RESULTS AND DISCUSSION

Findings

The tabular and textual presentation of the data gathered from the value chain analysis of the fish community under study was presented. "Makaira Mazara" which is in the Lagonoy Gulf, Bicol, Region V, Philippines, is rich in ethnographic languages, and has its local name of "Ulob."

Characteristics of "Ulob"

"Ulob" are among the most easily identified of all fish, native to the tropical and temperate regions of the Atlantic, Pacific, and Indian Oceans. They have a strong dorsal fin and a long, dangerous, spear-shaped upper mouth, and are cobalt-blue on top and silvery-white on the bottom.

"Ulob" in Partido measures 160 to 165 centimeters in length and weighs 70 kilograms for the smallest. (Conсорcia Pescador, 2021). Blue marlins are ocean or open blue-sea fish that live at depths of up to 200 meters and feed on seawater Marlin (epipelagic; oceanic). These species are restricted to the Luke warmth of the 24°C surface isotherm.

"Ulob" is hunting for tropical and humid water. As a result, they spent a lot of time on 37 meters. Marlins of this size prefer to swim alone. A small-scale school is founded with a maximum of ten students. I. Nakamura, 1985.

Figure 3 displays the Value Chain map for "Ulob." Various channels are reflected. There are eight (8) channels. The enabling environments are the BFAR, DENR, LGU, and DA.

Actors, Their Roles, and Links in the Value Chain Map

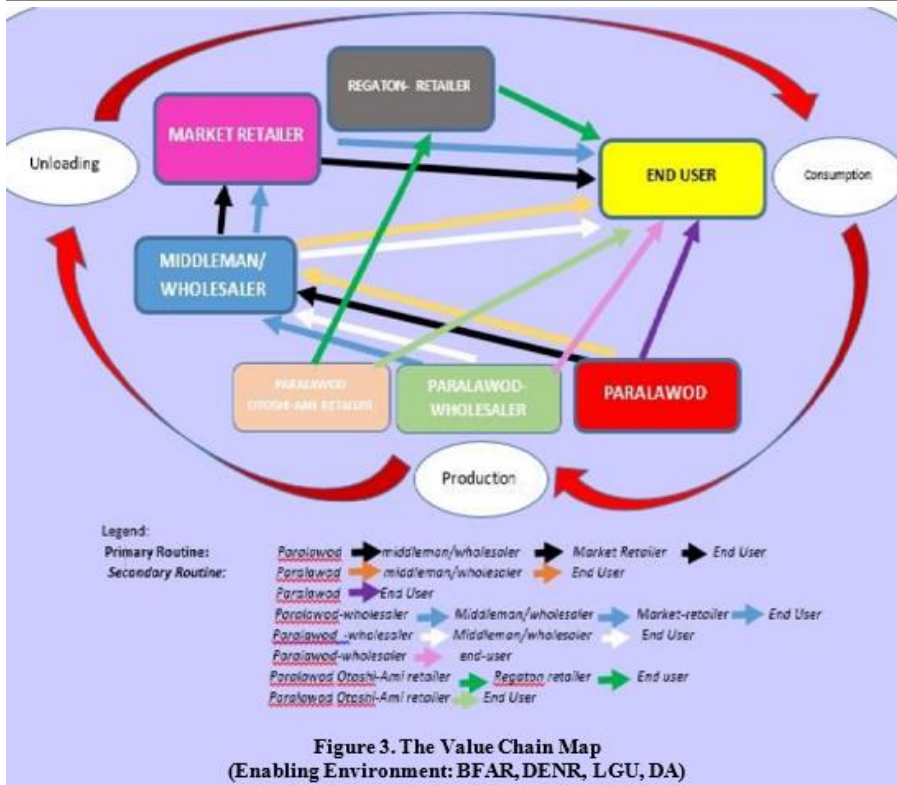
Key Actors' Relationship Dynamics

The primary chain actors in the value chain for the "Ulob" are the following: paralawod, paralawod-wholesaler, middlemen/wholesalers, market retailer, regaton retailer, paralawod otoshi-ami retailer.

Chain (Black Arrow) Paralawod

Middleman/wholesaler- Market Retailer-End User

The first chain involves the paralawod middleman/wholesaler, market retailer, and end user, who catch "Ulob" using palutang or drift gillnets, then otoshi-ami, and lastly, hook and hand line. Fish traders dominate the majority of marketing activities, serving as a source of informal credit and providing the necessary cash for the Paralawod family's needs, particularly during the extended seasonal periods of limited catch and revenue. This situation creates a strong interdependence between traders and fishermen, which influences the latter's market decisions. The prices they chose and set for themselves also impacted casa's pricing. End users often bought fresh "Ulob" from retail stores and/or paralawod retailers.



Chain (Orange Arrow). Paralarwod- Middlemen/Wholesaler- End User

The financing system contributes to the oligopolistic dominance of the middlemen/wholesalers (Thuy et al.). The paralarwod has the ability to influence the pricing of his caught "Ulob." The proportion of "Ulob" caught is determined by the middlemen/wholesaler. Paralarwod in Lagonoy, Camarines Sur, agreed to sell the caught "Ulob" to hotel owners who usually cater to tourists in Caramoan, Camarines Sur. Middlemen/wholesalers of "Ulob" Restaurant owners in Goa are potential wholesale buyers of "Ulob particularly during the Holy Week season (March/April), which coincides with the peak season of "ulob." Silent or open bidding occurred during the sales scheme, and thus the terms of sale are either cash or credit.

Chain (Violet Arrow): Paralarwod-End User

There are no formal purchasing arrangements between the paralarwod and the end user (consumer or buyer). Since the end user typically consists of walk-in customers, such as neighbors, friends, relatives, and occasionally tourists, a simple trade link may arise. The market linkage between them operates on a "first come, first served" basis and is highly dependent on product availability. Some otoshi-ami paralarwod, who went to paglawod (catching) and caught more pieces of "Ulob," chose to exchange these portions for pork or other commodities to be sold to the end user

Table 1. Summary of the Core Process, Costs, Returns, and Value Added on the "Ulob"

	PRODUCTION		PRODUCTION & UNLOADING				UNLOADING							
	Paralarwod		Paralarwod – farm gate Wholesaler		Paralarwod-Wholesaler		Middleman/Wholesaler		Market-Retailer		Regaton-retailer		Otoshi-Ami-retailer	
Season	Peak	Lean	Peak	Lean	Peak	Lean	Peak	Lean	Peak	Lean	Peak	Lean	Peak	Lean
Selling Price (₱)	200	250	260	250	200	250	250	300	310	400	310	400	250	250
Costs per kg or piece (₱)	11.45	9.16	24.36	13.08	38.75	31	167.56	86.3	134.51	66.75	124.19	58.75	118.2	37.2
Value Added (₱)	188.55	240.84	235.64	236.92	161.25	219	82.44	213.7	175.49	333.25	185.81	341.25	131.8	212.8
Net Profit Margin (%)	88.94 %	73.47%	76.07 %	70.00%	61.20%	14.86 %	18.85 %	14.70 %	10.97 %	12.00 %	17.20 %	21.70 %	80.00 %	80.00 %

There are no formal purchasing arrangements between the parawod and the end user (consumer or buyer) in this chain. Because the end user is only walk-in customers, usually from neighbors, friends, relatives, and occasionally tourists, a simple trade link may occur. The market linkage between them operates on a "first come, first served" basis and is highly dependent on product availability.

Some Otoshi-Ami parawod who went to paglawod (catching) and caught more pieces of "Ulob" chose the prerogative of exchanging "Ulob" portion to pork or other commodities to the end user.

Chain (Aqua Blue Arrow) Parawod Wholesaler-Casa or the Middlemen/Wholesaler-market Retailer End User

The highlights of the 4th Chain parawod wholesaler-casa, also known as the middlemen/wholesaler-market retailer end user, include: 1) the implementation of a credit system; 2) the role of the person responsible for determining pricing. Because the parawod in this chain frequently seeks financial assistance from the casa, particularly during the lean season when the parawod is unable to earn enough money due to an abundance of "Ulob," he is forced to sell the entire catch to the casa. Because he will distribute "Ulob" directly to the casa where he received an advance credit after unloading it, the parawod is automatically deemed the wholesaler in this chain. The casa, on the other hand, will scale and price the captured malasugui at its discretion, often at a discount.

Chain (White Arrow) Parawod Wholesaler- Middlemen/Wholesaler- End User

The parawod owes the casa or the middlemen/retailers in the same way as chain number four. As a result, the Casa has the authority to set the price for the fish commodities purchased from the Parawod.

Chain (Pink Arrow): Parawod wholesaler End User

This chain market relationship typically takes place during the lean season, when the Parawod sell their catch directly to the end users.

Chain (Cucumber green arrow) Parawod otoshi-ami Lambaklad Retailer- Regaton-Market Vendor- End User

The highlights of this chain are as follows: 1) The otoshi-ami parawod is the retailer in this chain; 2) the otoshi-ami parawod sets the price of the fish commodities under study; 3) the otoshi-ami parawod ensures that all consumers get fresh, inexpensive "Ulob," and 5) the otoshi-ami parawod who participated in the "Ulob" catching receives daily meals. The parawod otoshi-ami, in charge of marketing, delivers the caught "Ulob" to the otoshi-ami retailers. The committee will now act as the retailer, ensuring that all buyers who wait and remain at the otoshi-ami barracks return home with fresh "Ulob." Regaton is already a suki member of this chain. This chain's regaton-market seller may seize the opportunity to set the "Ulob" pricing significantly higher than the otoshi-ami retailer's sold price.

Chain (key lime green arrow) Parawod otoshi-ami- End User

The Parawod otoshi-ami-end user chain, identified by the key lime green arrow, allows the end client to directly purchase "Ulob" from the otoshi-ami fishing station. The ability to buy fresh "Ulob" at an affordable price favors the end consumer. "Presko na, barato pa!" (fresh fish meat at a lower price) according to the otoshi-ami parawod.

Value Chain Analysis of "Ulob" in Partido

Preliminary activities

Inbound logistics

The process involves the transportation and storage of newly arrived "Ulob." When the parawod wholesalers return from their hauling, they deliver "Ulob" to the casa/middlemen/wholesalers who have granted them

credit. As a result, storage of fish commodities is now the responsibility of the middleman/wholesaler rather than the paralawod. Because the paralawod delivers the commodity directly to the financier's house, the casa/middleman/wholesaler no longer has to worry about transporting the "Ulob" (Makaira Mazara/Blue Marlin).

Operations

Table 1 provides a summary of the core process, costs, returns, and added value associated with "Ulob" (Makaira Mazara/Blue Marlin) in the Partido area. It is possible to determine the actors involved, the selling prices per chain, the type of product offered, the costs per kilogram or piece unit, the value added, and the net profit margin per actor. The wholesalers purchased ice to keep the fish products fresh during their journey from Partido to Naga City. Restaurant owners, on the other hand, bring their own storage containers. They usually inform restaurant owners of their catch and request that the paralawod wholesaler and/or middlemen/wholesalers deliver the fish commodities to their establishments. They place some ice inside the fish to keep it fresh during long land or sea journeys. The market retailers typically store the "Ulob" in styrofoam containers to preserve it. When the market vendors' fish commodities remain unsold, they feed them to their dogs. Every morning, the regaton retailers ice the fish before selling it from house to house, either by walking or by using a vehicle.

Outbound logistics

This involves the storage, transportation, and distribution of commodities beyond their original location. Outside of Lagonoy, Sagñay, San Jose, and Goa, the Paralawod wholesalers and middlemen/wholesalers contact restaurant owners. Restaurant owners frequently visit Sagñay Partido to pick up their wholesale orders of "Ulob."

Marketing and Sales

The players rely on personal selling and identifying the "suki" bond rather than undertaking substantial advertising. The meatiness or leanness of the "Ulob" influences its prices. If it's meaty, consumers perceive it as high-quality, leading to a higher price; if it's lean, they perceive it as low-quality, resulting in a lower price. Furthermore, during the Lenten season, prices rise. However, it's important to note that the chain's key players set or agree on the pricing. The casa financed paralawod, who took out credits, but the casa would set the prices. Casa will buy the fish commodities at a lesser price from the paralawod or parabanwit but will sell them at a greater price through wholesaling or retailing. Paralawod, who lack a casa, also utilizes the "bulungan system" to act as intermediaries, wholesalers, or financiers.

The formation of the bulungan system occurs when one paralawod "bulongs" or "whispers" to another paralawod about the price of his "Ulob." When the other paralawod hears or learns of such pricing, he will offer his "Ulob" at a lower price than his competitors in order to entice consumers to pick him over them. Meanwhile, due to the high quality of the researched fish commodities, the price of paralawod-otoshi-ami remains stable, regardless of the season. There are no processors or exporters of fresh, containerized "Ulob." Cleaning, weighing, separating, washing, icing, and packing are the most valuable operations for "Ulob," and their rates rise during lean seasons. These actors do not sell salted/smoked or canned "Ulob" in the markets; hence these commodities are unavailable in Partido marketplaces. Services: The BFAR (Bureau of Fisheries and Aquatic Resources) provided fishing and fiber boat construction assistance to the Otoshi-ami Paralawod of San Jose, Camarines Sur.

It's also worth noting that "Ulob" is seldom on the DTI's pricing monitoring list. The larger players generally decide the price. According to Section 4 of E.O., the DENR (Department of Environment and Natural Resources) is in charge of the conservation, management, development, and proper use of the country's environment and natural resources, including watershed areas, as well as the licensing and regulation of all-natural resource utilization. This agency also publishes wastewater quality standards, which include allowable amounts of various contaminants and radiation, as well as water pollution management laws and regulations.

Not all key players in the "Ulob" (Makaira Mazara/Blue Marlin) industries take up the government's offer. The LGUs of Goa, San Jose, Lagonoy, and Sagñay have meetings with fish market traders to discuss trash waste separation and LGU requirements, such as monthly rentals.

Support Activities

Each year, Paralawod reimburses the respective LGUs for the renewal of their fishing gear and equipment. Infrastructure: The "Ulob" come at the Paralawod otoshi-ami barracks in San Jose, Camarines Sur, every morning and afternoon. (Note: They enquire from the paralawod's barracks because the "Ulob" are not caught every day.) The paralawod wholesalers do not need to worry about infrastructure because the catch fish commodities are delivered directly to their casa or to the middlemen/wholesalers, who have their own small landing areas in their homes. Market sellers paid LGUs space rents for the places they occupied in the market.

Human Resource

Family members are usually involved in the hauling of paralawod or parabanwit, with at least two of them travelling to sea. Paralawod are generally members of the otoshi-ami group in the paralawod-otoshi-ami, and if one of them is unable to join in the hauling, he will hire another paralawod to do it on his behalf. They demand a daily hauling fee of 39-49 paralawod, along with the provision of free meals. Family members make up the majority of the casa's human resources, along with the intermediaries and wholesalers who assist them in marketing the fish commodities under investigation. Regaton retailers commonly sell "Ulob" from home to house, either by walking or using their services.

Technological Development

There were no processors or processing services in the research locations to enable food processing technologies for "Ulob." There is no food processing technology available for this fish product in the Partido area, nor is there any canned food processing technology available for local, national, or international consumption. Consumers purchase "Ulob" either in its live or chilled state. Those that have been chilled are typically utilized to carry fish items to remote regions and protect them from spoiling soon. Both the paralawod-parabanwit, paralawod-wholesaler, and paralawod-otoshi-ami in San Jose, Camarines Sur, asked a mutual friend in the community to keep track of the number of daily hauling for them.

Procurement

"Ulob" is purchased, either live or chilled. Those that have been chilled are typically utilized to carry fish items to remote regions and protect them from spoiling soon. Both the paralawod-parabanwit, paralawod-wholesaler, and paralawod-otoshi-ami in San Jose, Camarines Sur, asked a mutual friend in the community to keep track of the number of daily haulings for them.

Procurement of "Ulob" from Paralawod is done as reimbursement for prior credits provided by the paralawod-parabanwit from Casa as their financiers, particularly during lean seasons, giving the casa additional influence in establishing prices over the Paralawod. Some paralawod suki, as well as competent middlemen/wholesalers, may be able to purchase "Ulob" "alsada" (consignment). On-time repayments of the proceeds from their "alsada" to the consignor are regarded as good records. Are purchased, they are either live or chilled. Those that have been chilled are typically utilized to carry fish items to remote regions and protect them from spoiling soon. Both the paralawod parabanwit, paralawod-wholesaler, and paralawod-otoshi-ami in San Jose, Camarines Sur, asked a mutual friend in the community to keep track of the number of daily haulings for them.

CONCLUSIONS

The "Ulob" value chain analysis identified crucial sites of intervention along the chain and proposed governmental and nongovernmental actions to boost its competitiveness. The importance of links among the various players has a significant influence on the performance of the value chain. The participants in the chain must have a strong and mutually beneficial relationship to ensure the seamless transmission of information,

skills, and services. Similarly, individuals in the value chain might bring opportunities or constraints (market links, USAID). The value chain analysis of "Ulob" concludes with the following findings.

Key Actor Relationship Dynamics

The paralawod, paralawod-wholesaler, middlemen/wholesalers, market retailers, regaton retailers, paralawod Otonshi-Ami retailers, and end users are the major chain players. Since "Ulob" lacks processors, it does not form part of the chain. Existing chain participants said that the activities of their businesses assisted them in meeting their daily needs and improving their economic situation.

Costs and Return Analysis/Value Added

Among the primary players in the chain, also known as "Ulob," the paralawod maintained a larger net profit margin during both peak and lean seasons, whereas the market retailer experienced a smaller net profit margin during these periods, despite both actors generating reasonable profits. The chain's various key players could benefit from financial literacy training, which would encourage simple yet effective financial management and empower them in their financial administration.

Constraints Infrastructure is lacking.

Primary actors of the "Ulob" typically preserve fish perishability by adding ice to the fish perishability, a practice known as "kanya-kanyang" preservation of fresh fish perishability. Consequently, they have not constructed any cold storage facility to prevent product perishability.

Value-added activities

The tasks that offer the most value to fresh "Ulob" include cleaning, weighing, separating, washing, icing, and packing. The value-added activities for fresh "Ulob" increase during lean seasons. The markets in Partido, Camarines Sur, do not sell dried, salted, or canned "Ulob."

Key players in this chain stick to traditional product deals, without exploring new potential markets outside of Partido district and Camarines Sur province for "Ulob"

The diseases and mental fears brought on by the COVID 19 pandemic have harmed the livelihood of various players in the "Ulob" catch.

Concerns about Economic

There are concerns about key players in this chain sticking to traditional product deals, without exploring new potential markets outside of the Partido district and Camarines Sur province for "Ulob."

The diseases and mental fears caused by the COVID-19 pandemic have negatively impacted the livelihood of various players in the "Ulob" game.

Concerns About the Environment

Apart from the use of non-restricted fishing gear in "Ulob," global warming may contribute to a decrease in its population.

Concerns Regarding Marketing

As part of the Bicol region, the Partido Lagonoy Gulf is also vulnerable to climate change-related hazards such as heavy rainfall, typhoons, earthquakes, floods, temperature rises, volcanic eruptions, and so on, all of which have a negative impact on the reproductive ability of the commodities studied.

Concerns about Finances

Because there are no other financial institutions, they can easily turn to in cases of emergency financing concerns, the paralawod and parabanwit of "Ulob" are forced to participate in the credit system by using the casa's services

Concerns about Technology

No processing technology. The areas where people catch "Ulob" (Makaira Mazara/Blue Marlin) lack processors.

Concerning services

In line with storage facilities and food processing technology, there are a lack of extension activities. We need to focus on aspects such as pricing, monitoring, environmental sustainability, product promotion, and marketing alternative livelihood options.

RECOMMENDATIONS

Here are some of the recommendations: LGUs and other concerned agencies may create and execute a range of upgrading measures by learning directly from the paralawod and other key actors in the chain about fishing, livelihood, sustainability issues, and other upgrading tactics. Monitoring unreported and unregulated fishing activities in the study sites should be a strict priority. State universities and colleges, such as Partido State University, along with other government and non-governmental organizations, could utilize extension and community services to further train and capacitate the key players in the value chain. This would aid in the development of sustainable livelihood programs and environmental protection, thereby enhancing the sustainability of the "Ulob" industry in the Partido district. It is crucial to establish clearer and up-to-date guidelines and mechanisms that involve the various key players in the Partido-Bicol "Ulob" industries. These guidelines and mechanisms should ensure the delivery of workable solutions that contribute to food security and inclusive growth among the "Ulob" paralawods. Establish a support program in the district to produce and train local "Ulob" processors. Key authorities should consider improving fish trading facilities for proper handling and packing, as the chain's key players have faced challenges in processing "Ulob," a fish commodity that cannot remain fresh for extended periods due to the lack of suitable storage. This could potentially extend the shelf life of "Ulob" by implementing a more secure cold storage system. We should encourage various key players in the chain to adopt locally manufactured and tested machinery and equipment to boost the local manufacturing industry. One of the commodities available in the Partido area is blue marlin, also known as "ulob" (Makaira Mazara). This research looked at its value chain in the Partido District in Camarines Sur, Philippines. It used quantitative and qualitative methods to conduct descriptive and narrative research strategies. Several actors are involved in the production, distribution, and marketing. We have already established eight (8) chains, each with unique dynamic relationships. Respondents are paralawod (fisherman), middleman/wholesaler, retailer, and key informants. The researcher used value chain mapping, descriptive statistics, and cost-and-return analysis. The study identified margins in the financial yields. Financial literacy is essential for overcoming disruptions in financial gains and minimizing revenue losses. We highly recommend a thorough evaluation of the application of RA 10645 or RA 8550 to sustain the ability of all or any actors in the chain to make a profit, especially during unyielding times. Partido State University, the only state university in the Partido area, may also use the data to initiate community projects that aim to impart information and skills on how the chain's actors can better budget and save money. National and/or local governments may invest in capacity building in the Partido area to preserve "ulob" production and establish processors.

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