



ISSN : 2350-0743

www.ijramr.com



International Journal of Recent Advances in Multidisciplinary Research

Vol. 11, Issue 01, pp.9413-9419, January, 2024

## RESEARCH ARTICLE

### COMBATting WILDLIFE CRIME: ASSESSING THE COMMUNITY'S AWARENESS OF THE CITY ORDINANCE ON ILLEGAL FISHING IN OLANGO ISLAND FOR SUSTAINABLE CONSERVATION EFFORTS

\*Grace A. Empinado, Apple Rose C. Ledesma, Danna Febra A. Ruiz, Ryan T. Figer, Annalyn U. Ligan and Deniebell B. Pableo

University of Cebu Lapu-Lapu and Mandaue, Mandaue City, Cebu, Philippines

#### ARTICLE INFO

##### Article History:

Received 27<sup>th</sup> October, 2023  
Received in revised form  
19<sup>th</sup> November, 2023  
Accepted 15<sup>th</sup> December, 2023  
Published online 24<sup>th</sup> January, 2024

##### Key Words:

Lapu-Lapu City Ordinance No. 93,  
Fisherfolks, Awareness Levels, Prohibited  
acts, Penalties, Environmental  
Conservation.

#### ABSTRACT

This study delves into the awareness levels among fisherfolks in Lapu-Lapu City, specifically in Barangays San Vicente, Tingo, and Sabang, regarding Lapu-Lapu City Ordinance No. 93. The ordinance, which prohibits the use of cyanide and destructive fishing methods, outlines penalties for violations. Through comprehensive surveys and rigorous data analysis, the research assesses fisherfolks' comprehension of prohibited acts and associated penalties. Results unveil varying awareness levels, indicating a higher understanding of prohibited acts compared to associated penalties. The study advocates for targeted educational campaigns, community-based initiatives, reinforced law enforcement, and tailored legal literacy programs to elevate awareness and encourage adherence to sustainable fishing practices. The proposed action plan seeks to bridge knowledge gaps, promote responsible fishing, and contribute to the preservation of marine ecosystems.

#### INTRODUCTION

Wildlife crimes, a subset of environmental crime, encapsulate a broad spectrum of illicit activities that violate laws explicitly crafted to safeguard biodiversity. These laws extend their protective scope to encompass diverse forms of life, including mammals, reptiles, birds, amphibians, fish, and even insects, reflecting a comprehensive commitment to ecological conservation (Gregorich, 1992; Muth & Bowe, 1998). In the Philippines, a nation characterized by abundant coastal areas where nearly 70% of the population resides, the fisheries sector plays a pivotal role in both food security and economic stability (Palomares and Pauly, 2014; Santos et al., 2011). As the population burgeons and poverty persists, securing the food supply becomes imperative, making the fisheries sector strategically essential for providing necessary protein and essential nutrients (Prein and Ahmed, 2000; Irz et al., 2007). The Philippines, ranking eighth globally in fish production as of 2014, owes a significant portion of its economic contribution to the fisheries sector, which employed around 1.6 million people and contributed 1.5% to the GDP in 2015 (BFAR, 2016; PSA, 2017a).

##### \*Corresponding author: Grace A. Empinado

University of Cebu Lapu-Lapu and Mandaue, Mandaue City, Cebu, Philippines.

Wildlife crime, a unique category that defies traditional crime classifications, is often labeled a "victimless crime" due to the absence of a direct human victim filing a complaint. However, societal implications are profound, as these crimes lead to severe harm, if not the complete eradication, of entire species, adversely affecting hunters, anglers, nature photographers, and enthusiasts who derive joy from wildlife (Clifford, 1998; Muth, 1998). In the context of illegal fishing, a persistent issue in the Philippines, fishermen employ destructive methods like dynamites, cyanide, and small-holed fishnets, causing harm not only to wildlife but also to the environment. Legislative responses, such as R.A. 8550 and local ordinances like Lapu-Lapu City's City Ordinance No. 93, aim to combat these illegal practices. Despite these measures, the enforcement challenge persists, as exemplified by recent incidents, revealing the need for continuous efforts to address this multifaceted issue. As human activities threaten wildlife and ecosystems, our research aspires to provide valuable insights and recommendations to the fisherfolk, communities, local government units (LGUs), the Department of Environment and Natural Resources (DENR), and the Coast Guard. Through a comprehensive study, we aim to contribute informed ideas that support biodiversity protection and sustainable practices in the face of evolving threats to our environment. This study is anchored on the Routine activity theory Developed by Cohen and Felson (1979).

The anchored theory is supported by rational choice theory and theory of change. Routine activity theory helps to explain why people commit the illegal act of fishing and if these three elements: A motivated offender, A suitable target, and absence of guardian is present, the crime will be executed but if any of these are missing the execution will not happen. A suitable target can include a person, an object, or a place. A person is those people who are engaging in Illegal fishing methods. A motivated offender; routine activity theory looks at crime from an offender’s point of view. It is the offender’s assessment of a situation that determines whether a crime will take place. A capable guardian has a ‘human element’, that is usually a person who, by their mere presence would deter potential offenders from perpetrating a crime, such as Coast guards, LGU’s, Police patrols, bantay dagat, and even neighbors. Rational choice theory is one of the supporting theories of this study, the central premise of this theory is that people are rational beings whose behavior can be controlled or modified by a fear of punishment. In this way, it is believed offenders can be persuaded to desist from offending by intensifying their fear of punishment. Rational choice theory was developed by (Becker 1968). This theory can also provide a powerful lens for examining the motivation behind Wildlife Crime (WC), as it assumes that criminals are rational actors who behave according to cost-benefit analyses. From this perspective, the reward for committing an WC is offset by the cost (i.e., the risk of getting caught and punitive severity), which hold that people freely choose their behavior and are motivated by the avoidance of pain and the pursuit of pleasure. Individuals evaluate their choice of actions in accordance with each option's ability to produce advantage, pleasure and happiness. Rational choice provides a micro perspective on why individual offenders decide to commit specific crimes; people choose to engage in crime because it can be rewarding, easy, satisfying and fun.

Furthermore, a supporting theory develop by Carol Weiss published in (1995) the theory of Change is a description of why a particular way of working will be effective, showing how change happens in the short, medium and long term to achieve the intended impact. It can be represented in a visual diagram, as a narrative, or both. A theory of change can be developed at the beginning of a piece of work to help with strategic planning, or to describe an existing piece of work so you can evaluate it. A theory of change explains how the activities undertaken by an intervention (such as a project, action plan, program, or policy) contribute to a chain of results that lead to the intended or observed impacts, which is to increase the level of awareness of the fisherfolks. The lack of clarity about the “mini-steps” that must be taken to reach a long-term outcome not only makes the task of evaluating a complex initiative challenging, but reduces the likelihood that all of the important factors related to the long-term goal will be addressed (Weiss, 1995).

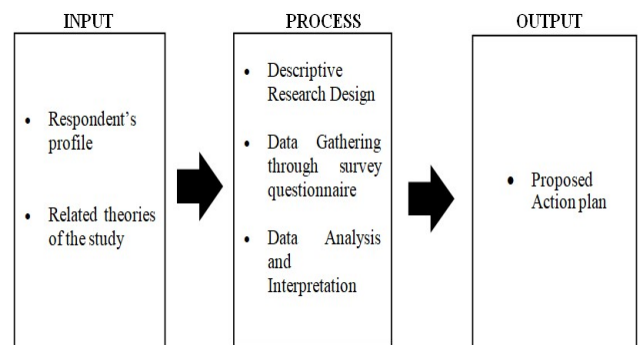
The primary objective of this study was to ascertain the level of awareness among fishermen in Barangay San Vicente, Barangay Tingo, and Barangay Sabang, Lapu-Lapu City, regarding Lapu-Lapu City Ordinance No. 93. This ordinance, titled "An Ordinance Prohibiting the Use of Cyanide and the Employment of Destructive Fishing Methods for Fishing and Imposing Penalty," aimed to regulate fishing practices and impose penalties for non-compliance. Through an examination of fishermen's awareness, the study sought to gauge the effectiveness of the ordinance in fostering responsible and

sustainable fishing practices in the specified areas. Specifically, the study seeks to find answers to the following questions:

- What is the Profile of the respondents in terms of:
  - Age
  - Barangay
  - Types of sea craft
- What is the level of Awareness on the City Ordinance No. 93 in terms of:
  - Prohibited Acts; and Penalties
- Based on the findings on the study, what action plan can be proposed?

## MATERIALS AND METHODS

**Research Design:** This quantitative study utilized the descriptive method of a survey research in describing, analyzing and interpreting a quantitative data at Olango Island more particularly (San Vicente, Barangay Tingo, and Barangay Sabang) Lapu-Lapu City. Our quantitative approach will provide a fuller understanding of the level of Awareness on City Ordinance No. 93 "An Ordinance Prohibiting the Use of Cyanide and the Employment of Destructive fishing Methods for fishing and Imposing Penalty" in Restricting Illegal fishing in the three Barangays in Olango Island Lapu-Lapu City. The descriptive research served as a fact-finding method in which the survey questionnaire served as the main data gathering instrument in this study. Descriptive research includes adequate interpretation of the data gathered



**Figure 1 Research Flow Process**

This study was conducted on Olango Island, Lapu-Lapu City, specifically in Barangay San Vicente, Barangay Tingo, and Barangay Sabang. The number of fishermen is believed to be approximately 260 people. The respondents for this study were limited to 150 fishermen from three selected barangays—Tingo (50), San Vicente (50), and Sabang (50)—chosen through purposive sampling. The researcher selected Olango Island due to its diverse coastal ecosystem, which provided a suitable environment for the study's exploration during the research period. This study employed a survey questionnaire developed by the researchers, crafted based on the provisions of Lapu-Lapu City Ordinance No. 93. The questionnaire underwent thorough validation by a panel of experts, the Ethics committee, and statisticians to ensure its reliability. To cater to the linguistic diversity of the respondents, a Cebuano translation was integrated, facilitating comprehensive

understanding of instructions and questions. The questionnaire comprised two main sections: the initial part focused on gathering respondent profiles, including personal data, age, barangay, and types of sea craft used. The second part delved into survey questions probing the level of awareness regarding Lapu-Lapu City Ordinance No. 93 within the selected barangays. Clear and straightforward instructions accompanied the survey, facilitating respondents in providing accurate information and responses.

**Gathering of Data:** Prior to initiating the actual data collection, the researchers diligently secured permission from the respective barangay captains involved in the study. This involved the formal submission of a request letter to the barangay chairman, seeking approval to conduct the research within their jurisdiction.

Following the receipt of official permission, the researchers proceeded with the data gathering phase, distributing the survey questionnaire to a carefully selected group of one hundred fifty respondents. Rigorous efforts were made to ensure a fair representation by randomly selecting respondents in each of the three barangays under consideration. The participants were provided with clear instructions and ample time to thoughtfully respond to the survey questionnaire, ensuring the collection of accurate and precise data. Subsequently, the collected responses were carefully tabulated, computed, and subjected to thorough analysis. The survey spanned from November 22 to January 24 of the current year.

**Data Analysis:** The data collected was then tabulated and the descriptive statistics was applied in treating the data by describing the basic features and provides a summary of the order or sequence data obtained from the sample through the data gathering instrument used.

Specifically, the researchers used the mode and weighted mean during the formulation of the statistical interpretation from the data gathered. This then answers the specific research questions of the study and shall help researchers in suggesting how to make fishermen knowledgeable with the ordinances strictly.

**Treatment of Data:** To treat the data gathered the following statistical method will be utilize such as:

**Slovin's Formula:** This allows the researcher to calculate an ideal sample size without compromising the total population of fisherfolks in the three mentioned barangays. In this case we set the confidence level of respondents' attributes to 95% which gives as a margin of error at 5%.

**Weighted mean:** Was used to calculate theoretically expected outcome where each outcome has a different probability of occurrence.

The following scale was used in interpreting the survey questionnaire.

## CRITERIA

SCALE	WEIGHT	INTERPRETATION
4	3.26 – 4.00	Fully Aware
3	2.51 – 3.25	Moderately Aware
2	1.76 – 2.50	Slightly Aware
1	1.00 – 1.75	Not at all aware

## RESULTS

This chapter presents analyzes and interprets data gathered from the barangay San Vicente (50), barangay Tingo (50), and barangay Sabang (50). The data are presented in a tabular form with corresponding analysis and interpretation with their implications.

**Presentation and Analysis of Data:** This chapter contains two parts. The first part reveals the profile of the respondents and type of sea craft used.

**Part I. Profile and type of sea craft:** This section shows the data pertaining to the respondents' profile and types of sea craft they use.

**Table 1. This section shows the data pertaining to the respondents' profile and types of sea craft they use**

Age	Frequency	Percentage
21-30 years old	21	14%
31-40 years old	22	15%
41-50 years old	49	33%
51-60 years old	35	23%
61-70 years old	23	15%
<b>Total</b>	<b>150</b>	<b>100</b>
Types of Sea craft	Frequency	Percentage
Motorized	90	60%
Non-Motorized	60	40%
<b>Total</b>	<b>150</b>	<b>100</b>

Table 1 reveals a distinct pattern among different age groups, with the age bracket of 41–50 years old displaying the highest percentage at 33%, signaling prevalent engagement in fishing activities within this demographic. This suggests a deep-rooted affinity for this livelihood, shaped by familiarity and cultural significance. For these individuals, fishing is not merely a job but a proud aspect of their Filipino identity, sustaining both income and sustenance for their families. Despite the challenges of low income, the unique skills applied in their craft, and the inherent significance of their island residence, make fishing a central part of their lives. In contrast, the age bracket of 21–31 years old reflects the lowest percentage at 14%, signaling a declining interest among millennials in the fishing industry, possibly due to physical demands and a preference for non-traditional work arrangements that align with their desired lifestyles. Notably, millennials, with higher education levels and technological proficiency, are more inclined towards non-traditional career paths and may even consider working abroad. Regarding sea craft usage, 60% of fishermen employ motorized vessels, emphasizing the convenience, speed, and strategic advantages associated with these crafts. The ability to swiftly navigate to fishing grounds and adapt to changing conditions underscores the practicality of motorized sea craft. In contrast, 40% opt for non-motorized sea craft, primarily due to financial constraints and a preference for traditional models. Lack of expertise in motorized craft operation and maintenance, coupled with financial apprehensions, are identified barriers. Recognizing the positive impact of motorization on returns, particularly in Olango Island, there is a call for targeted government programs offering economic and knowledge support to encourage the adoption of motorized technology among non-motorized craft owners. Such initiatives not only elevate the standard of living for the target group but also generate additional job opportunities, contributing to the overall welfare of the fishing community.

**Table 2. Prohibited Acts on Lapu-Lapu City Ordinance No. 93**

PENALTIES	WEIGHTED MEANS	INTERPRETATION
1.Are you aware that under Section 4, using fine fish nets shall be imposed of P5,000.00 or imprisonment at the discretion of the Court?	2.9	MODERATELY AWARE
2.Are you aware that under Section 1, using explosives such as dynamite while fishing shall be imposed of P5,000.00 or imprisonment at the discretion of the Court?	3.0	MODERATELY AWARE
3.Are you aware that under Section 2, using of toxic substances, such as cyanide while fishing carries a penalty of P5,000.00 or imprisonment at the discretion of the Court?	3.0	MODERATELY AWARE
4.Are you aware that if you violate Ordinance No. 93's provisions, you will be fined P5,000.00 pesos or imprisoned at the Court's discretion under Section 5?	2.5	SLIGHTLY AWARE
5.Are you aware that Section 3 specifies that any person, owner, manager, or operator of any business enterprise or company who violates the provisions of this Section will be fined P5,000.00 or imprisoned at the court's discretion?	3.0	MODERATELY AWARE

Table 2 highlights the awareness levels among fisherfolk regarding prohibited acts outlined in the Lapu-Lapu City Ordinance. Notably, three indicators received a "fully aware" rating, underscoring the community's understanding of the prohibited activities and their potential consequences. The significance of this awareness lies in fostering a sense of security within the fishing community and deterring them from engaging in actions that could result in penalties as stipulated by the City Ordinance. Examining the data, it becomes evident that fishermen exhibit a moderate awareness level concerning the illegality of using small-hole nets and the mere possession of cyanide. The implications of these findings are profound, indicating that while fishermen recognize the legal repercussions of utilizing cyanide, there is room for heightened awareness regarding the comprehensive illegality of mere possession. Cyanide, a hazardous substance, is commonly employed in fishing to stun fish for easier capture, leading to a high mortality rate and adverse health effects. The moderate awareness levels suggest the need for targeted information dissemination to ensure a comprehensive understanding of the legal ramifications. Further analysis reveals a commendable level of awareness among fishermen regarding the prohibition of dynamite fishing. Dynamite fishing, known for its severe environmental repercussions, remains a concern in the Philippines. Fishermen demonstrate a keen awareness of the detrimental effects of dynamite, and their cautious approach indicates a collective effort to safeguard marine habitats and biodiversity. The fear of legal consequences serves as a deterrent against engaging in such destructive practices. Conversely, the majority of respondents exhibit only moderate awareness regarding the prohibition of small-hole nets. This suggests a historical acceptance of this fishing method, potentially due to its long-standing practice without apparent legal repercussions.

Small-hole nets pose a threat to marine ecosystems, affecting fish size, reproductive patterns, and overall biodiversity. The findings underscore the need for targeted education campaigns to ensure a more comprehensive understanding of the ecological implications of using small-hole nets and promote adherence to conservation measures. In essence, the study elucidates the varying degrees of awareness among fisherfolk regarding prohibited acts, emphasizing the importance of targeted educational initiatives to enhance their understanding of legal implications and foster sustainable fishing practices.

**Table 3. Penalties on Lapu-Lapu City Ordinance No. 93**

PENALTIES	WEIGHTED MEANS	INTERPRETATION
6.Are you aware that under Section 4, using fine fish nets shall be imposed of P5,000.00 or imprisonment at the discretion of the Court?	2.9	MODERATELY AWARE
7.Are you aware that under Section 1, using explosives such as dynamite while fishing shall be imposed of P5,000.00 or imprisonment at the discretion of the Court?	3.0	MODERATELY AWARE
8.Are you aware that under Section 2, using of toxic substances, such as cyanide while fishing carries a penalty of P5,000.00 or imprisonment at the discretion of the Court?	3.0	MODERATELY AWARE
9.Are you aware that if you violate Ordinance No. 93's provisions, you will be fined P5,000.00 pesos or imprisoned at the Court's discretion under Section 5?	2.5	SLIGHTLY AWARE
10.Are you aware that Section 3 specifies that any person, owner, manager, or operator of any business enterprise or company who violates the provisions of this Section will be fined P5,000.00 or imprisoned at the court's discretion?	3.0	MODERATELY AWARE

Table 3 delineates the awareness levels among fishermen in the three selected barangays, revealing that four indicators received a "moderately aware" rating, while one was categorized as "slightly aware." Notably, the study underscores that the fishermen across the chosen barangays were largely uninformed about the penalties stipulated in Lapu-Lapu City Ordinance No. 93. These penalties encompass varying monetary fines and the potential for imprisonment as consequences for engaging in illegal fishing activities. Recognizing and comprehending these penalties is pivotal as it empowers fishermen to steer clear of violations, ensuring lawful conduct and responsible fishing practices. Figure 3 further highlights that respondents exhibit moderate awareness concerning the penalties associated with the use of fine mesh nets. Defined as nets with mesh sizes less than three centimeters, fine mesh nets have the potential to capture substantial quantities of small fish, hindering restocking efforts. Despite a certain level of awareness regarding the prohibition, fishermen lack comprehensive knowledge of the corresponding penalties for employing such nets. This knowledge gap underscores the need for targeted educational initiatives to ensure a thorough understanding of legal consequences and foster adherence to conservation

measures. Similarly, fishermen are also depicted as largely unaware of the penalties pertaining to dynamite fishing. While cognizant of the prohibition against this destructive practice, the lack of awareness regarding associated penalties suggests an incomplete understanding of the potential legal repercussions. Dynamite fishing poses environmental risks, and bridging this information gap is crucial to deter fishermen from engaging in such activities and safeguard marine ecosystems. The study further reveals a lack of awareness among fishermen regarding penalties for using cyanide in fishing. Despite recognizing the prohibition of this hazardous practice, many fishermen remain unfamiliar with the specific penalties they may face. The use of cyanide poses threats not only to marine life but also to the well-being of the fishermen themselves. Addressing this awareness gap is imperative to ensure informed decision-making and discourage the use of harmful substances in fishing practices. Figure 3, with a mean score of 3.0, unequivocally indicates that fishermen are entirely unaware of the penalties associated with violating the provisions of Ordinance No. 93.

This emphasizes a critical gap in knowledge among fishermen in Olango Island, as they possess awareness of prohibited acts but lack comprehensive understanding of the potential fines and imprisonment they might incur. Consequently, this knowledge deficit diminishes the apprehension associated with violating city ordinances, highlighting the necessity for comprehensive information dissemination to instill a sense of responsibility and adherence to legal regulations. In summary, the data from Tables 2 and 3 illuminate a significant contrast: while fishermen are cognizant of the existence of prohibited activities governed by government ordinances, their unawareness of corresponding penalties diminishes the gravity of legal violations. Addressing this informational void is pivotal to instill a sense of responsibility and deter illegal fishing practices among the fishing community in Olango Island.

**Table 4. Overall weighted mean**

Category	Average weighted mean	Interpretation
PROHIBITED ACTS	3.3	FULLY AWARE
PENALTIES	2.9	MODERATELY AWARE
OVERALL MEAN	3.1	MODERATELY AWARE

Table 4 provides a comprehensive overview through the calculation of the overall average weighted mean, categorizing data into two significant domains: prohibited acts and penalties. In the realm of prohibited acts, the average stands impressively at 3.3, indicating that fisherfolks exhibit a commendable level of awareness, marked as "fully aware." Conversely, when scrutinizing penalties, the average slightly dips to 2.9, signifying a "moderately aware" understanding among the respondents. The amalgamation of these scores culminates in an overall mean of 3.1. This composite figure elucidates that the level of awareness among fisherfolks concerning Lapu-Lapu City Ordinance No. 93 can be characterized as "moderately aware." The study underscores the noteworthy cognizance of the fishing community regarding prohibited acts, while acknowledging a moderate awareness level concerning the associated penalties. This nuanced analysis informs the formulation of targeted educational

initiatives to enhance overall awareness and foster a more comprehensive understanding of both prohibited acts and their corresponding legal consequences.

**DISCUSSION**

The primary goal of this study is to determine the Level of Awareness on the Lapu-Lapu City Ordinance No. 93 among the Fishermen in Barangay San Vicente, Barangay Tingo, and Barangay Sabang Lapu-Lapu City. The findings of the study served as the basis for a proposed action plan.

**This study sought to answer the following problems:**

- What is the Profile of the respondents in terms of:
  - Age
  - Barangay
  - Types of sea craft
- What is the level of Awareness on the City Ordinance No. 93 in terms of:
  - Prohibited Acts; and Penalties
- Based on the findings of the study, what action plan can be proposed?

**DISCUSSION**

The study yields insightful findings shedding light on various aspects of the fishing community in barangays San Vicente, Tingo, and Sabang, particularly concerning age demographics, awareness levels, and the landscape of illegal fishing activities. Firstly, the age distribution among respondents is a noteworthy observation. A significant portion, constituting 33%, falls within the age bracket of 41–50 years, indicating a mature demographic with substantial exposure and experience in the fishing industry. This age group's active involvement suggests a wealth of knowledge passed down through years of hands-on fishing experience. Contrarily, the lowest percentage, at 14%, belongs to the 21–30 years age range, hinting at a declining interest among millennials in the traditional fishing sector. As millennials increasingly opt for non-traditional career paths, this shift warrants attention in the context of the fishing industry's future. The survey results unveil a strong awareness among fisherfolks regarding the prohibited acts outlined in Lapu-Lapu City Ordinance No. 93, garnering an average mean of 3.3. This high level of awareness suggests a solid understanding of activities deemed unacceptable by the ordinance. However, a nuanced revelation emerges when examining the awareness of associated penalties, with respondents demonstrating only a moderate awareness, indicated by an average mean of 3.1. This inconsistency implies that while fisherfolks grasp the prohibited acts comprehensively, there exists a knowledge gap concerning the specific penalties tied to these acts.

The study advocates for improved information dissemination, enforcement, and prosecution of fishing crimes in Olango Island to enhance awareness of penalties. By facilitating better engagement and cooperation among authorities, providing targeted training, and bolstering intelligence gathering efforts, there is potential to bridge the awareness gap and ensure fisherfolks possess a more holistic understanding of both prohibited acts and associated penalties. Despite instances of



illegal fishing having been minimized from 2018 to 2020, challenges persist. To combat these issues effectively, community efforts, such as alternative fishing methods and educational groups, have been initiated to educate fishermen on prohibited acts and penalties. Recognizing illegal fishing as a criminal activity on Olango Island is crucial for applying the full force of the law against perpetrators. Given the island's reliance on fishing for sustenance and income, addressing illegal fishing becomes imperative for the equitable growth and empowerment of coastal communities. Efforts to safeguard the oceans from illegal activities will contribute positively to the overall well-being of those dependent on marine resources.

## CONCLUSION

In conclusion, this study provides a comprehensive understanding of the awareness levels among fisherfolks in barangays San Vicente, Tingo, and Sabang, Lapu-Lapu City, regarding Lapu-Lapu City Ordinance No. 93. The age distribution among respondents reveals a notable concentration of experience and activity in the 41–50 years age bracket, while a decline in interest among millennials in the fishing industry is evident. The research indicates a robust awareness of prohibited acts outlined in the ordinance, showcasing a deep understanding among fisherfolks. However, a crucial knowledge gap surfaces concerning the associated penalties, emphasizing the need for targeted interventions to enhance awareness in this aspect. The study recommends strategic improvements in information dissemination, enforcement mechanisms, and prosecution of fishing crimes to address the identified gap. Facilitating enhanced engagement and cooperation among authorities, providing specialized training, and intensifying intelligence gathering efforts are crucial steps toward ensuring fisherfolks possess a comprehensive understanding of both prohibited acts and penalties. Despite a reduction in illegal fishing activities from 2018 to 2020, challenges persist, emphasizing the ongoing importance of community-driven initiatives such as alternative fishing methods and educational groups. Recognizing illegal fishing as a criminal activity on Olango Island is paramount, enabling the application of stringent legal measures against offenders. The study underscores the significance of concerted efforts to safeguard marine resources, as the majority of Olango Island residents depend on fishing for their livelihoods. Addressing illegal fishing not only protects coastal communities' food supply and income sources but also contributes to the equitable growth and empowerment of those reliant on ocean resources. Ultimately, this research serves as a call to action, urging stakeholders to collaboratively work towards preserving the marine ecosystem and ensuring sustainable practices within the fishing industry.

## RECOMMENDATIONS

Based on the study's findings, the following recommendations are proposed to enhance awareness and promote sustainable fishing practices among fisherfolks in barangays San Vicente, Tingo, and Sabang, Lapu-Lapu City:

- Launch targeted educational campaigns focusing on both prohibited acts and associated penalties outlined in Lapu-Lapu City Ordinance No. 93. Utilize multiple communication channels such as workshops, seminars, and information materials in local dialects to ensure comprehensive understanding.

- Establish community-based programs that encourage active participation and engagement among fisherfolks. Formulate collaborative initiatives involving local government units, non-governmental organizations, and community leaders to conduct regular dialogues, ensuring continuous awareness and knowledge-sharing.
- Strengthen law enforcement efforts by increasing patrols and monitoring activities in fishing grounds. Collaborate with relevant government agencies, such as the Department of Environment and Natural Resources (DENR) and the Philippine Coast Guard, to intensify surveillance and implement stricter penalties for violators.
- Conduct legal literacy programs specifically tailored for fisherfolks, explaining the details of Lapu-Lapu City Ordinance No. 93. Work with legal experts to simplify legal language and ensure that fisherfolks fully comprehend the implications of violating fishing regulations.

By implementing these recommendations, there is a potential to create a more informed and responsible fishing community, contributing to the preservation of marine ecosystems and the sustainability of fisheries in Lapu-Lapu City.

## PROPOSED ACTION PLAN

### Proposed Action Plan: Enhancing Awareness and Compliance with Lapu-Lapu City Ordinance No. 93

**Objectives:** Improve awareness and compliance among fisherfolks regarding prohibited acts and penalties outlined in Lapu-Lapu City Ordinance No. 93, ensuring sustainable fishing practices and environmental conservation.

#### Educational Campaigns

- Conduct targeted educational campaigns through workshops, seminars, and information materials.
- Collaborate with local educational institutions to organize awareness programs for fisherfolks.
- Translate educational materials into local dialects to enhance understanding.
- Utilize social media platforms, community bulletin boards, and local radio stations for wider reach.

#### Community-Based Programs

- Establish community engagement teams comprising representatives from local government units (LGUs), non-governmental organizations (NGOs), and community leaders.
- Organize regular dialogues and forums to facilitate knowledge-sharing and address concerns.

#### Strengthened Law Enforcement

- Increase patrols and monitoring activities in key fishing grounds.
- Implement a reporting mechanism for fisherfolks to communicate potential violations.
- Advocate for stricter penalties for violators through legislative initiatives.

## Legal Literacy Programs

- Organize legal literacy workshops specifically tailored for fisherfolks.
- Work with legal experts to simplify legal language and ensure comprehension.
- Distribute informational pamphlets summarizing key points of Lapu-Lapu City Ordinance No. 93.

## REFERENCES

### Books

Gohar, P. (may 3, 2019). *The Last Fish Swimming: The Global Crime of Illegal Fishing*.

### Journals/ Periodicals/Manuals

Gilchrist, J., Newman Zoology Research Fellow, C., Wasser Research Professor of Biology at Center for Conservation Biology, S., Ivanova Associate Professor of Global Governance and Director, M., Wallen Assistant Professor, K., Justine Professeur, J., . . . Famiglietti Doctoral Student, C. (2020, June 19). Wildlife trafficking News, Research and Analysis. Retrieved June, 2020, from <https://theconversation.com/global/topics/wildlife-trafficking-31275>

Kurland, J., Pires, S., McFann, S., & Moreto, W. (2017, April 28). Wildlife crime: A conceptual integration, literature review, and methodological critique. Retrieved from <https://crimesciencejournal.biomedcentral.com/articles/10.1186/s40163-017-0066-0>

Uhm, D. (n.d.). The social construction of the value of wildlife: A green cultural criminological perspective - Daan P van Uhm, 2018. Retrieved from <https://journals.sagepub.com/doi/full/10.1177/1362480618787170>

W. (2017). [https://www.pewtrusts.org/en/research-and-analysis/issue-briefs/2017/12/how-to-end-illegal-fishing?fbclid=IwAR3NTyeu5drHr\\_qkAc3pYbWqhcq6LHGRINyjITm2gVPkMtgpU3JDLTcuwho](https://www.pewtrusts.org/en/research-and-analysis/issue-briefs/2017/12/how-to-end-illegal-fishing?fbclid=IwAR3NTyeu5drHr_qkAc3pYbWqhcq6LHGRINyjITm2gVPkMtgpU3JDLTcuwho). Retrieved from [https://www.pewtrusts.org/en/research-and-analysis/issue-briefs/2017/12/how-to-end-illegal-fishing?fbclid=IwAR3NTyeu5drHr\\_qkAc3pYbWqhcq6LHGRINyjITm2gVPkMtgpU3JDLTcuwho](https://www.pewtrusts.org/en/research-and-analysis/issue-briefs/2017/12/how-to-end-illegal-fishing?fbclid=IwAR3NTyeu5drHr_qkAc3pYbWqhcq6LHGRINyjITm2gVPkMtgpU3JDLTcuwho)

Wellsmith, Melanie. "Wildlife Crime: The Problems of Enforcement." *University of Huddersfield Research Portal*, Springer Netherlands, [pure.hud.ac.uk/en/publications/wildlife-crime-the-problems-of-enforcement](http://pure.hud.ac.uk/en/publications/wildlife-crime-the-problems-of-enforcement).

Weiser, Leah Weiser. "How to End Illegal Fishing." *The Pew Charitable Trusts*, Publisher, 0 Dec. 2017, [www.pewtrusts.org/en/research-and-analysis/issue-briefs/2017/12/how-to-end-illegal-fishing?fbclid=IwAR3NTyeu5drHr\\_qkAc3pYbWqhcq6LHGRINyjITm2gVPkMtgpU3JDLTcuwho](http://www.pewtrusts.org/en/research-and-analysis/issue-briefs/2017/12/how-to-end-illegal-fishing?fbclid=IwAR3NTyeu5drHr_qkAc3pYbWqhcq6LHGRINyjITm2gVPkMtgpU3JDLTcuwho).

### Online/Internet Sources

Quantitative vs. Qualitative Methods to Establish Trustworthiness (Blog #8). (2012, October 29). Retrieved from <https://cmalakoff.wordpress.com/2012/10/29/quantitative-vs-qualitative-methods-to-establish-trustworthinessblog-8/>

Mario Maderazo, SSG Advisors (2016). Supporting the Fisheries Commission's Community Fisheries Watchdog Committees: Legal Review of the Bantay Dagat Program in the Philippines. The USAID/Ghana Sustainable Fisheries Management Project (SFMP). Narragansett, RI: Coastal Resources Center, Graduate School of Oceanography, University of Rhode Island and SSG Advisors. GH2014\_POL051\_SSG.. 23 pp.

Author Blitz Amy. (1987, June 1). *Marine fishing in the Philippines*. Cultural Survival. Retrieved April 3, 2022, from <https://www.culturalsurvival.org/publications/cultural-survival-quarterly/marine-fishing-philippines>

Table of contents - BFAR on-line information system. (n.d.). Retrieved April 9, 2022, from <https://www.bfar.da.gov.ph/files/img/photos/CNFIDP.pdf>

Philippine development plan 2017-2022 overall. (n.d.). Retrieved April 9, 2022, from <http://pdp.neda.gov.ph/wp-content/uploads/2017/01/Chapter-4-3292017.pdf>

\*\*\*\*\*