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## RESEARCH ARTICLE

### GUARDIANS OF THE SEA: ASSESSING AWARENESS OF THE CITY ORDINANCE ON ILLEGAL FISHING IN OLANGO ISLAND

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#### ABSTRACT

This study determined 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. Any infringement of a criminal statute specifically enacted to preserve wildlife is considered a wildlife crime, according to a widely used though extremely broad definition of the term. The laws usually cover animals (including mammals, reptiles, birds, amphibians, fish, and even insects), as well as certain plants (Gregorich, 1992; Muth & Bowe, 1998). The majority of the Philippines' regions are coastal, and it is believed that 70% of Filipinos reside there (Palomares and Pauly, 2014). In terms of the Philippine economy and food security, fishing is very important (Santos et al., 2011). Since poverty in the Philippines has remained persistently high and the population has increased, it is necessary to ensure the food supply to maintain feeding the population. Fisheries have a favorable nutritional impact as a source of vital protein and critical nutrients, making them a strategically significant aspect (Prein and Ahmed, 2000; Irz et al., 2007). To carry out this study, the researcher utilized descriptive method in describing, analyzing, and interpreting a quantitative data at Olango Island more particularly (San Vicente, Barangay Tingo, and Barangay Sabang) Lapu-Lapu City. It served as a fact-finding method in which the survey questionnaire served as the primary data gathering instrument in this study. Descriptive analysis includes adequate interpretation of the data gathered. This study was conducted in Olango Island, Lapu-Lapu City. Olango Island is composed of 8 barangays such as Barangay, Baring, Caw-oy, Sabang, Santa Rosa, Talima, Tingo, Tunga-san, and San Vicente. This study was conducted particularly in Barangay San Vicente, Barangay Tingo, and Barangay Sabang. The respondents of this study are limited to 150 fishermen from three chosen barangays, which are Tingo (50), San Vicente (50), and Sabang (50), which were chosen through non-probability sampling. The researchers chose Olango Island since it is a diverse coastal ecosystem, and the majority of its population relies on fishing as a livelihood. This research study utilized non-probability sampling method in determining the total sample population from the total population of all the chosen barangays. Individuals are selected based on non-random criteria, and not everyone has a chance of being included. The findings of the study then revealed that a lack of education and coordination made it hard to address the problem among fishermen's awareness of Lapu-Lapu City Ordinance No. 93. On the other hand, there is an immense possibility that most of them only received second-hand knowledge without absolute knowledge of Lapu-Lapu City Ordinance No. 93. This means that there is a lack of informational drive and cooperation between the fishermen and the law enforcers against these illegal activities.

#### INTRODUCTION

Environmental crime is often thought of as a subcategory of wildlife crimes. Wildlife crime is a distinct type of criminal activity. It does not "cleanly" fit into the several standard classifications, or categories, that are frequently used to characterize different types of criminal conduct, including crimes against people or property crimes. Wildlife crimes are frequently referred to as "victimless crimes," just like

prostitution, drug usage, and gambling, because there isn't a clearly visible victim or harmed party, at least not one who can be identified as a human. It has been argued, however, that in the case of wildlife crime, similar to other victimless crimes, society as a whole is the real victim because these criminal acts result in significant harm to, if not the complete eradication of, entire species of animals and plants, impacting hunters, anglers, nature photographers, and anyone else who appreciates wildlife in some way. Indeed, some claim that when committed to the farthest extent possible, wildlife crimes significantly harm whole ecosystems (Clifford, 1998; see also Muth, 1998). Illegal fishing is still a problem in the Philippines. Fishermen utilize unlawful techniques, such as the

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use of dynamite, cyanide, and thin mesh fishing nets, in order to catch fish quickly. Fishermen have been using these techniques regularly but unknowingly for generations in one form or another, which is destructive not only to animals but also to the ecosystem. In response to this expanding issue, the Congress enacted Republic Act no. 8550, an Act that integrates all relevant legislation and provides for the development, management, and protection of fisheries and aquatic resources, among other things. On the local level, Lapu-Lapu City passed City Ordinance No. 93, "An Ordinance Prohibiting the Use of Cyanide and the Employment of Destructive Fishing Methods for Fishing and Imposing Penalties." The Department of Environment and Natural Resources (DENR) Western Visayas recently hosted the "9th Training of Trainers (ToT9) on the Application of the Wildlife Law Enforcement Manual of Operations" among national government agencies due to the fact that many fishers from all over the world are traveling further and farther from their own shores in search of protein and its benefits. Participants from the National Bureau of Investigation (NBI), Philippine National Police (PNP), PNP-Aviation Security Group (PNP-AVSEGROUP), and Philippine Coast Guard participated in the ToT9, which was organized in cooperation with the region's Enforcement Division, Biodiversity Management Bureau (BMB), and United States Agency for International Development (USAID) Protect Wildlife Project (PCG), Philippine Ports Authority (PPA), Philippine Navy (PN), Local Government Units (LGUs), Department of Justice (DOJ), Bureau of Customs (BoC), and DENR's provincial and community offices. ToT9 aims to strengthen the knowledge and understanding of the participants of Republic Act 9147, also known as the Wildlife Resources Conservation and Protection Act of 2001. They are also expected to disseminate the new rules and procedures for environmental cases and the application of the Manual of Operations in the enforcement of the Wildlife Act. The purpose of this measure is to effectively free the city's sea waters from cyanide for fishing and the employment of destructive fishing methods in catching fish and more. Now, fisheries are classified in municipal jurisdiction as fishing in municipal waters or commercial fishing.

This study is anchored on the routine activity theory developed by Cohen and Felson (1979) and was supported by two other theories namely, Rational Choice Theory, developed by Becker, and lastly the Theory of Change, developed by Carol Weiss and published in 1995. According to the concept of routine activity, criminal activity will be carried out if three conditions are met: a motivated offender, a suitable target, and the lack of a guardian. If any of these conditions is missing, the crime will not be carried out. A suitable target can include a person, an object, or a place. A person is someone who engages in illegal fishing methods. A suitable target is a person or property that may be threatened by an offender. Felson prefers the term "target" to "victim," as the former highlights the fact that the majority of crimes are aimed at obtaining goods, and therefore the "victim" may be absent from the place of the crime (Felson & Clarke, 1998). The probability that a target will be more or less suitable is influenced by four attributes, described from the point of view of the offender by the acronym VIVA (value, inertia, visibility, and access), which define its level of risk (Cohen & Felson, 1979; Felson & Clarke, 1998). A capable guardian has a "human element," which is usually a person whose mere presence would deter potential offenders from perpetrating a crime, such as the Regional Maritime Unit, LGUs, police patrols, BantayDagat,

and even neighbors. The third and final element described in the theory is the absence of a capable guardian—someone who can intervene to stop or impede a crime (Cohen & Felson, 1979). A capable guardian has a "human element," which is usually a person whose mere presence would deter potential offenders from perpetrating a crime, such as the Regional Maritime Unit, LGUs, police patrols, BantayDagat, and even neighbors. Furthermore, Rational Choice Theory, developed by Becker, is one of the supporting theories of this study. It states that individuals use rational calculations to make rational choices and achieve outcomes that are aligned with their own personal objectives. These results are also associated with maximizing an individual's self-interest. Using rational choice theory is expected to result in outcomes that provide people with the greatest benefit and satisfaction, given the limited options they have available. Finally, the last theory was the Theory of Change by Carol Weiss, that explains why a specific method of operation would be successful and demonstrates how change occurs over the short, medium, and long terms to have the desired effect. It can be described verbally, visually, both, and neither. In order to fulfill the objective of this study, the researcher aimed 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, Philippines. The study further revealed that illegal fishing has decreased between 2018 and 2020. They implemented different alternative fishing methods and created different groups to help educate the fishermen concerning to the prohibited acts and penalties they may violate in doing illegal activities. Working to ensure that illegal fishing was recognized as a criminal activity on Olango Island, so that the full force of the law could be brought to bear against those engaging in it. Most of the people on Olango Island rely on fishing and fishing-related activities to make a living.

## METHODS

This study determined the level of Awareness on the Lapu-Lapu City Ordinance No. 93 among the Fishermen in Lapu-Lapu City, Philippines. The findings of this study will serve as a basis for a proposed action plan. This study was conducted at Olango Island, Lapu-Lapu City. Olango Island is composed of 8 barangays such as Barangay, Baring, Caw-oy, Sabang, Santa Rosa, Talima, Tingo, Tunga-san, and San Vicente. This study was conducted particularly in Barangay San Vicente, Barangay Tingo, and Barangay Sabang. Upon gathering the data, the survey questionnaire included a Cebuano translation to ensure that all of the respondents would be able to understand the instructions and questions thoroughly. The first part of this questionnaire consists of the profile of the respondents that have their personal data: age, barangay, and types of sea craft used. The second part comprises the survey questionnaire about the level of awareness of Lapu-Lapu City Ordinance No. 93 in the chosen barangays. The second part of this survey questionnaire contains questions that seek the level of awareness of the fishermen. The questions included in this part of the survey questionnaire were derived from City Ordinance No. 93, "An Ordinance Prohibiting the use of Cyanide and the Employment of Destructive Fishing Methods for Fishing and Imposing Penalty." The survey questionnaire includes simple instructions to guide the respondents through the filling out the necessary information and answering the questions therein. The data collected was then tabulated and, the descriptive statistics were applied in treating the data by describing the basic features and providing a summary of the order or sequence

data obtained from the sample through the data gathering instrument used. Specifically, the researcher used the mode and weighted mean to formulate the statistical interpretation from the data gathered.

## RESULTS AND DISCUSSION

This chapter presented the analysis and interpretation of the data gathered from the elected barangay. The data collected are offered in a tabular form.

**Table 1. Profile of the Respondent**

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%
Total	150	100
Barangay	Frequency	Percentage
San Vicente	50	33.33
Tingo	50	33.33
Sabang	50	33.33
Total	150	100%
Types of Sea craft	Frequency	Percentage
Motorized	90	60%
Non-Motorized	60	40%
Total	150	100

**Profile of the Respondent:** The researcher included the Respondent's Profile in this study for the reason that they intended to analyze and distinguish the variation between their profiles to reveal the majority and minority of total respondents in terms of their age, barangay, and Types of sea craft.

**Prohibited Acts on Lapu-Lapu City Ordinance No. 93:** It was shown in Table 2 that three (3) indicators were rated as fully aware, while two (2) indicators were rated as moderately aware. This further explained that the fisherfolk are aware of the said prohibited acts. Avoiding illegal activities will help the fishing community feel safe and keep away from the penalties stated in the City Ordinance. It is also revealed in Table 2 that the fishermen are moderately aware of using small-hole nets, and simply possessing cyanide is illegal. This indicated that the fishermen knew that using cyanide is punishable by law because it can damage marine life and cause serious health problems. The fisherfolk were moderately aware that simply possessing cyanide was illegal. They were not fully aware that it was illegal because they were not well informed about this prohibited act.

**Penalties on Lapu-Lapu City Ordinance No. 93:** It was shown in Table 3 that four (4) indicators rated as moderately aware, one (1) slightly aware. It further explains that the fishermen on the three chosen barangays were unaware of the penalties. These penalties include different amounts of monetary fine; imposing a monetary fines and imprisonment for illegal fishing, as indicated in the Lapu-Lapu City Ordinance No. 93. Being aware of these penalties is important because it allows you to avoid committing such a violation, and it also allows you to make sure that you are acting lawfully at all times. It is also revealed in Figure 3 that the respondents are moderately aware of the penalties for using Fine mesh nets. It also indicated that with a mean of 3.0, the respondents are unaware of the penalties if they violate the provision of Ordinance No.93. This further explained that the fishermen in Olango Island are not well-informed of the Lapu-Lapu City Ordinance No.93.

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

PROHIBITED ACTS	WEIGHTED MEANS	INTERPRETATION
1. Are you aware that Section 2 of the Lapu-Lapu City Ordinance No. 93 prohibits the use of cyanide for fishing?	3.4	FULLY AWARE
2. Are you aware that using poisonous substances when fishing is prohibited under Section 1 of the Lapu-Lapu City Ordinance No. 93?	3.4	FULLY AWARE
3. Are you aware that fishing using dynamite or other destructive fishing methods is prohibited under Section 1 of the Lapu-Lapu City Ordinance No. 93?	3.3	FULLY AWARE
4. Are you aware that under Section 4 of the Lapu-Lapu City Ordinance No. 93, fine fish nets are prohibited from being used in fishing?	3.0	MODERATELY AWARE
5. Are you aware that simply possessing cyanide is illegal under Section 2 of the Lapu-Lapu City Ordinance No. 93?	3.1	MODERATELY AWARE

**Table 3. Penalties 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 Court's discretion?	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 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 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

They are only aware of the prohibited acts but are not well-informed regarding the penalties, such as fines and imprisonment. Because of these factors, they are not afraid to violate these prohibited acts. Based on the data collected in Tables 2 and 3, fishermen were aware that these prohibited activities existed and were imposed by the government. As far as penalties are concerned, the fishermen were unaware, and, for some reason, these penalties were not fully relayed to the community, specifically to the fishermen. As a result, the fishermen were not wholly concerned about breaking city ordinances due to their lack of knowledge about the penalties imposed by the City Ordinance stated above.

**Overall Weighted Mean:** Table 4 showed the overall average weighted mean. There are two categories in the table: prohibited acts and penalties. The average for Prohibited Acts is 3.3 (fully aware). In penalties, it had an average of 2.9 (moderately aware). On the other hand, the overall mean is 3.1, which further revealed that the level of awareness of the fishermen in Lapu-Lapu City Ordinance No. 93 is moderately aware.

## CONCLUSION

This study determined the level of awareness of the City Ordinance on Illegal Fishing in Olango Island. The study concluded that the respondents in the barangay San Vicente, Tingo, and Sabang lack awareness of the penalties for the prohibited acts against illegal fishing on Olango Island. It indicated that they still have the potential to violate the city ordinance because they are not fully aware of the consequences. The findings showed that a lack of education and implementation of the law by the authorities made it hard to address the problem among fishermen's awareness of Lapu-Lapu City Ordinance No. 93. On the other hand, there is an immense possibility that most of them only received second-hand knowledge without absolute knowledge of Lapu-Lapu City Ordinance No. 93. This means that there is a lack of informational drive and cooperation between the fishermen and the law enforcers against these illegal activities. Furthermore, local, and national government organizations should conduct and improve their seminar and training among the local fishermen and monitor them closely in order to effectively enforce the law, maintain protected areas, and guarantee strict adherence to the City Ordinance and to reduce the repeating the same violations. The researcher would like to recommend an action plan recommended to the involved local authorities by initiating seminars through inviting resource speakers to educate them on the proper way of fishing without resorting to illegal means, as this would enhance the fishermen's participation and awareness and could discourage them from breaking the law. Furthermore, the increased visibility and importance of Bantay-Dagat to properly implement the law. Introduced alternative fishing methods to fishermen in the fishing communities on Olango Island, the fisherfolks' age-old skills of the sea, reading the tide, and finding large hauls are being melded with new skills to make their livelihood sustainable.

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