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Descriptive Study of the Fisheries Registration and Licensing System in Selected Municipalities of Panay Island, Philippines

Ruby P. Napata[1], Liberty N. Espectato[2] and Genna D. Serofia[3]

ABSTRACT

This study was conducted to describe the effectiveness of the system of registration and licensing of municipal fishers, fishing vessels, and fishing gears in three coastal municipalities of Panay Island and to identify problems and gaps of its implementation. The study sites include Brgy. Culasi, Roxas City, Capiz; Brgy. Polopina, Concepcion, Iloilo and Brgy. Pinamuk-an, New Washington, Aklan. Primary data were gathered through an interview schedule and key informant interview (KII) and further validated through focus group discussions (FGD). Data collection was done during the period September to December 2008 with 1,171 total number of respondents.

With no uniform proceedure, process of registration and licensing system of the three study sites varies. Compliance rate for fisherfolk registration, fishing gear and fishing boat licensing is highest in Concepcion compared to New Washington and Roxas City. The case of the municipality of Concepcion has also demonstrated that "one-stop-shop" strategy of bringing the registration team to the people can increase fishers' compliance. Some policy recommendations for the LGUs to improve its fisheries registration and licensing system include the following: determine the carrying capacity of the resource as basis for limiting entry, standardize the registration and licensing procedure, establish a fair basis for license fees, and provide funds for the establishment and maintenance of a databank of fishers and the status of their registration and licensing.

Key words: *licensing; registration, fisheries management*

INTRODUCTION

The marine waters of the Philippines cover an area of 2.2 million km^2, surrounding a coastline with the length of 36,000 km. The country has a total of 81 provinces and 69 of which are coastal. In 2002, the fishing industry employed a total of 1,614,368 fishing operators nationwide, more than 1 million of which came from the municipal fisheries sector (*BFAR 2010*). Catch per unit effort for the total small pelagic fish catch from municipal fisheries in the Philippines has declined dramatically from about 2.9 t hp^{-1} in 1948 to less than 0.5 t hp^{-1} (*DENR 2001*). It is widely recognized that coastal population is steadily growing due to increasing birth rate and in-migration and without proper intervention; the continuing degradation of coastal resources and decline in fish catch poses a grave threat to food security and will result to greater poverty (*DENR et al. 1997*). It is provided for in Article XII, Section 2 of the Philippine Constitution that fisheries are owned by the general public and such guarantees use of the resource for all citizens. With few exceptions, Philippine fisheries are generally under a regime of open access and this system has led to its deterioration (*DENR et al. 1997*; *Christy 1996*; *Townsend 2004*). Open access fisheries attract too much fishing effort because of the potential profits from harvesting it and thus, need optimal regulation to reduce fishing effort (*Townsend 2004*; *Holland et. al. 1999*).

To address this issue, one viable strategy in fisheries management is the licensing system, that can potentially serve as a means for regulating access to fisheries resources to ensure their viability, integrity, and sustainability (*Pomeroy 1995*). Sec. 6 of Republic Act 8550 (RA 8550) otherwise known as the Philippine Fisheries Code stipulates that local government units (LGUs) are vested with authority to register and grant licenses to fishers, fishing vessels, and fishing gears in consultation with the Fisheries and Aquatic Resource Management Council (FARMC). Moreover, Section 149 of the Local Government Code (RA 7160) also grants municipalities the exclusive authority to award fishery privileges in the municipal waters, to impose rentals, fees or charges, and particularly to issue licenses for the operation of municipal fishing vessels. Furthermore, Executive Order (EO) 305 devolved the standardization of registration of fishing vessels of 3 GT and below to the LGUs.

This study was undertaken to describe the effectiveness of the system of registration and licensing of municipal fishers, fishing vessels, and fishing gears in selected coastal municipalities of Panay Island and to identify problems and gaps in its implementation. This is very significant given that no similar study yet was conducted in the area since the enactment of the Fisheries Code in 1998 and EO 305 during the period

[1] University Research Associate, Institute of Fisheries Policy and Development Studies, College of Fisheries and Ocean Sciences, University of the Philippines Visayas. E-mail: rubynapata@yahoo.com (corresponding author)
[2] University Research Associate, Institute of Fisheries Policy and Development Studies, College of Fisheries and Ocean Sciences, University of the Philippines Visayas
[3] University Extension Specialist, Institute of Fisheries Policy and Development Studies, College of Fisheries and Ocean Sciences, University of the Philippines Visayas

this study was implemented. Results of this study can be very useful as a basis for policy recommendations to improve the system of registration and licensing in the country.

METHODOLOGY

Identification of the study sites was done based on the records of the Bureau of Fisheries and Aquatic Resources (BFAR) Region 6 Office. The municipality with the highest number of registered fishers in each province was chosen as one of the study sites. In the same manner, the barangay (village) with the highest number of fishers in the selected municipality was identified as the specific study area. The study sites include Brgy. Culasi, Roxas City, Capiz; Brgy. Polopina, Concepcion, Iloilo and Brgy. Pinamuk-an, New Washington in Aklan (**Table 1** and **Figure 1**).

Table 1. Study sites.

	Study Sites		**Total Number of Fishers Respondents**
Province	Municipality	Barangay	
Iloilo	Concepcion	Polopiña	312
Aklan	New Washington	Pinamuk-an	333
Capiz	Roxas City	Culasi	526
TOTAL			1171

Primary data was gathered using a pre-tested interview schedule which was translated to Hiligaynon (the local dialect in the area). The schedule includes information about the fisher, the fishing gear and fishing boat used. The survey was conducted through the assistance of six enumerators whom were trained by the research team. These enumerators are residents of the area and were chosen because of their background and familiarity of the place. During the conduct of the study, the research team decided to do a census of fishers rather than doing sampling only since the LGUs and barangays identified do not have an updated and complete list of fishers. The list that was generated from the census was provided to the LGUs and barangays for their perusal and updating of records. Data collection was done during the period September to December 2008.

A total of 1,171 respondents were surveyed for the study, almost 50% of which is from Brgy. Culasi, Roxas City. This number of respondents far exceeds the total number of fishers registered in the three barangays as per records of the respective LGUs. Counter-checking who among the respondents are included in the list of the LGU is hard due to the difficulty in retrieving the data. Most of the records were entered in logbooks and not organized systematically.

Key informant interview (KII) was administered with employees of the Municipal Agriculture Office (MAO) and

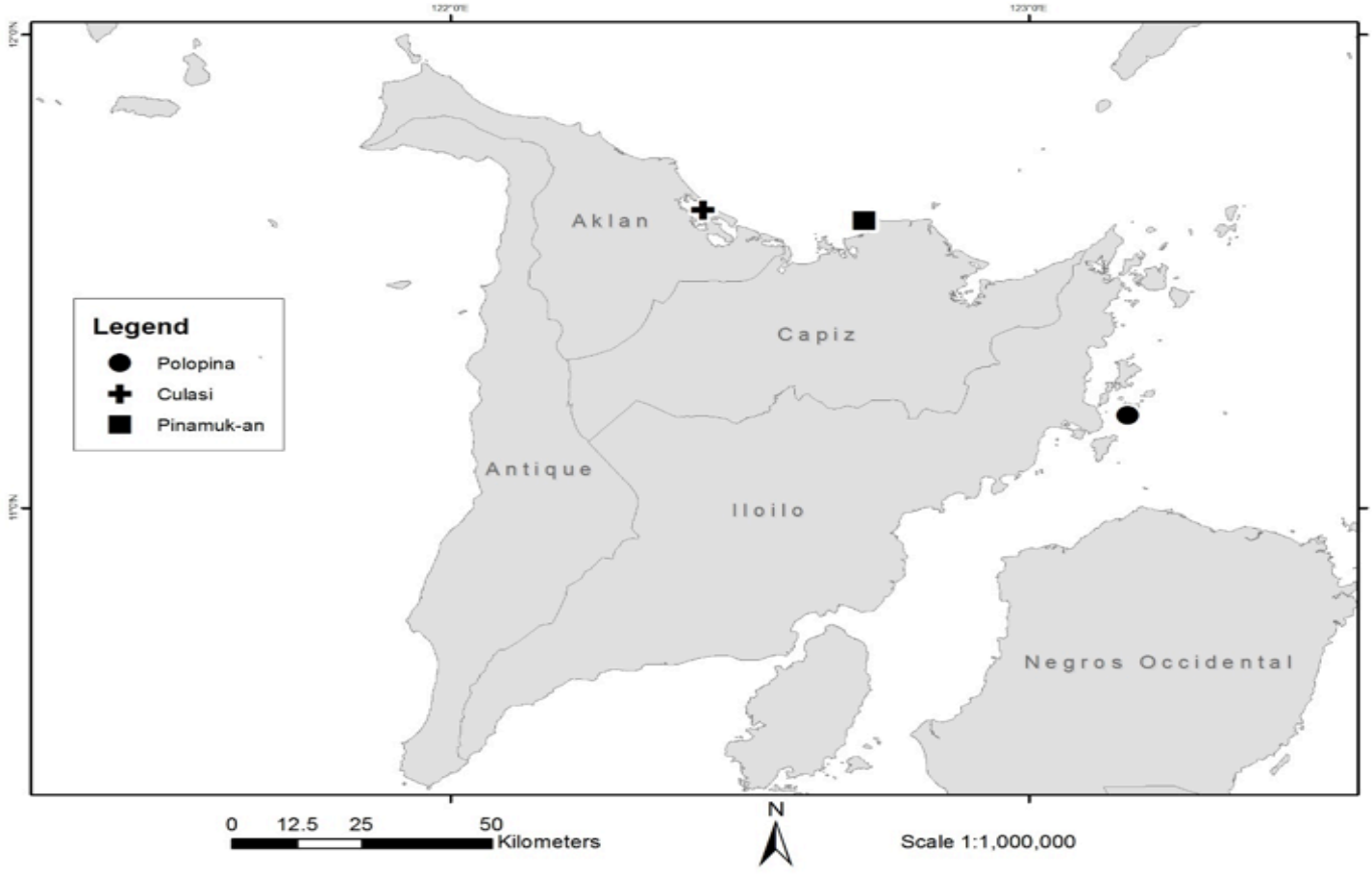

Figure 1. Map showing the three study sites.

FARMC officers on the system or process in implementing the registration and licensing system in the area. Preliminary results of the study were presented and validated with the stakeholders (fishers, barangay officials, representative from the MAO) in the study sites through focus group discussion (FGD).

RESULTS AND DISCUSSIONS

The Fishers

More than 70% of the respondents in the three sites are male and most of them belong to age group 41-50 (**Table 2**). Majority of the respondents have fishing as their major source of income. This group is primarily composed of the full-time fishers and those who are employed as fish-worker or crew of municipal fishing boats. On the other hand, only a small number have skills-related jobs (e.g. construction worker, carpentry) with fishing as their supplemental source of income. Of the three municipalities, Roxas City has the highest number of female respondents; most of whom are fish vendors. Fifty-five percent (55%) of the total respondents worker, carpentry) with fishing as their supplemental source of income. Of the three municipalities, Roxas City has the highest number of female respondents; most of whom are fish vendors. Fifty-five percent (55%) of the total respondents has elementary level or elementary graduate as their highest educational attainment. FGD data show that alternative livelihoods are not present in the area, thus, making them highly dependent on the coastal resource.

Fisheries Registration and Licensing Process

It is widely accepted that resource conflicts can be reduced when access rights are distributed more effectively and equitably (*Pomeroy 1995*). In accordance with RA 8550 the municipalities of Concepcion, Roxas City, and New Washington have each enacted Municipal Fisheries Ordinances (MFOs) to manage their municipal waters and the resources therein. This enabling ordinance also provides for the registration and licensing, as well as the schedule of fees for the permits and fines and penalties for violations. However, enforcing fisheries and licensing process is usually a big challenge for coastal LGUs (*Catedrilla et.al. 2012*; *Espectato et.al. 2012*).

Table 2. Profile of the respondents.

		Polopiña, Concepcion		Pinamuk-an, New Washington		Culasi, Roxas City	
		Freq	%	Freq	%	Freq	%
Sex	Male	263	84	271	81	379	72
	Female	49	16	62	19	147	28
Age	<21	8	3	12	4	68	13
	21-30	68	22	81	24	126	24
	31-40	77	25	74	22	116	22
	41-50	93	30	81	24	125	24
	51-60	50	16	61	18	74	14
	61-70	13	4	13	4	11	2
	71-80	3	1	6	2	5	1
	No answer					1	1
Main source of income	Fishing	303	97	184	55	376	71
	Oyster culture & fishing	-	-	136	41	-	-
	Mussel and oyster culture	-	-	-	-	6	1
	Fish vendor	-	-	-	-	119	23
	Skilled jobs	6	2	9	3	2	1
	Others	3	1	4	1	23	4
Civil Status	Married	259	83	241	72	257	49
	Separated	1				4	1
	Single	46	15	63	19	62	12
	Widow	5	2	10	3	7	1
	No answer	1		19	6	196	37
Highest Educational Attainment	College Graduate	5	2	21	6	13	2
	College Level	4	1	21	6	17	3
	Elementary Graduate	153	49	64	19	57	11
	Elementary Level	57	18	69	21	244	46
	High School Graduate	38	12	65	20	52	10
	High School Level	39	12	77	23	98	19
	No Answer	14	4	11	3	44	8
	Vocational	2	1	5	2	1	-

Fishers Registration. Fishers, as defined by RA 8550, include people directly or/and physically engaged in taking and/or culturing and processing of fishery resources. Section 18 of the Fisheries Code provides that all fisheries-related activities in the municipal waters shall be utilized by municipal fishers and their organizations as listed in the registry. Ideally, the registry will serve as basis for the granting of fishery access rights and monitoring of fishing activities within the municipal waters (*REECS 2005*).

The process is generally similar in all of the three sites (**Figure 2**). Fishers need to secure and accomplish the application form developed by BFAR that is readily available in the LGUs' local Department of Agriculture (DA) office or in the respective barangay hall. The general information being asked include personal information (name, address, age, etc.), socioeconomic characteristics (source of livelihood, number of dependents), and information on fishing practices and activities (fishing vessel and gear specifications, etc.). While the LGU of Concepcion and New Washington require a minimal amount for the fisher ID, it is free of charge in Roxas City. The respective MFOs of the three municipalities stipulate that only bonafide residents of the municipality for the past six (6) months are eligible to register. The "preferential treatment" conferred to the resident municipal fishers is also embodied in the Fisheries Code. It can be considered as a derivative form of property rights, which to some extent may limit the participation of outsiders in the process (*DENR et.al. 1997*). Of the three sites, only Roxas City issues fishing permits for municipal fishers from other municipalities on the condition that they have to register with the said LGU and pay double the required license fees. It is also stipulated in Sections 17 to 22 of RA 8550 and reflected in the respective MFOs of the three municipalities that the list or registry of fishers should be updated annually. However, this is not usually practiced by the LGUs due to the difficulty of maintaining the registry. Usually, LGUs have inadequate funds to establish and maintain a database for the registry (*Trudeau 2004*). Of the three municipalities, only the LGU of Concepcion started to build their database by encoding the forms in a computer.

This outcome conforms with the results of a similar study conducted by *Espectato et.al.* (*2012*) in Southern Iloilo wherein the process and requirements for application of permits also varies from one municipality to another and this has caused confusion among fishers. Some of the policy recommendations of the said study is to harmonize the ordinances of neighboring municipalities sharing the same resource and to have a uniform process and set of requirements to be implemented to facilitate efficiency of the system.

Fishing Gear Licensing. A municipal fishing gear license is a permit to use a specific type of fishing gears within the municipal waters for a certain period. It is provided for in the MFOs of the three LGUs that even simple gear like "bubo" (fish pot) and "bunit" (hook and line) need to be licensed (RA 8550, 1998). Fees vary from PhP 2.00 (per unit of fish pot) to PhP1,200.00 (per unit of lift net). The fishing gear license needs to be renewed annually. Licensing procedure in the three sites vary (**Figure 3**). The process usually involves four local government offices: the Barangay Treasurer's office, Municipal Agriculture Office (MAO), Municipal Treasurer's Office (MTO), and Municipal Mayor's Office. Figure 3 shows that New Washington has more tedious process than Concepcion. Also, it requires more supporting documents (e.g. Police clearance, Health or Sanitary Clearance) which entails more costs and time on the part of the applicant-fisher. These factors have discouraged some fishers to comply with the policy on licensing.

Fishing Boat/Vessel Licensing. A fishing boat license is a permit that is needed to operate specific types of fishing vessel within the municipal waters for a certain period (*REECS 2005*). Since the implementation of EO 305 in 2004, the licensing of fishing boats is now widely practiced among the LGUs to merge the process of registration and licensing into one procedure. A boat license has to be renewed annually but registered only once, unless ownership changes or major alterations are made (Implementing Rules and Regulations, EO 305). However, de facto, the "merged" process of registration and licensing, is done annually. This

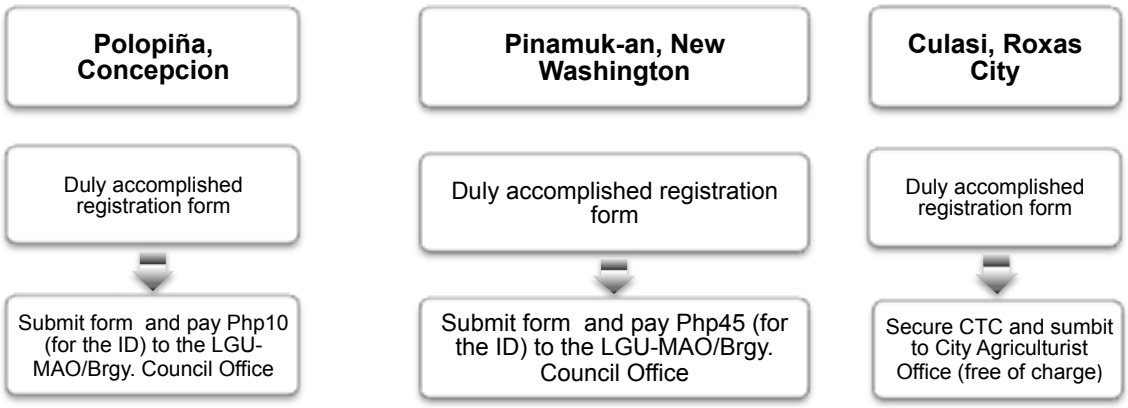

Figure 2. The fishers' registration process.

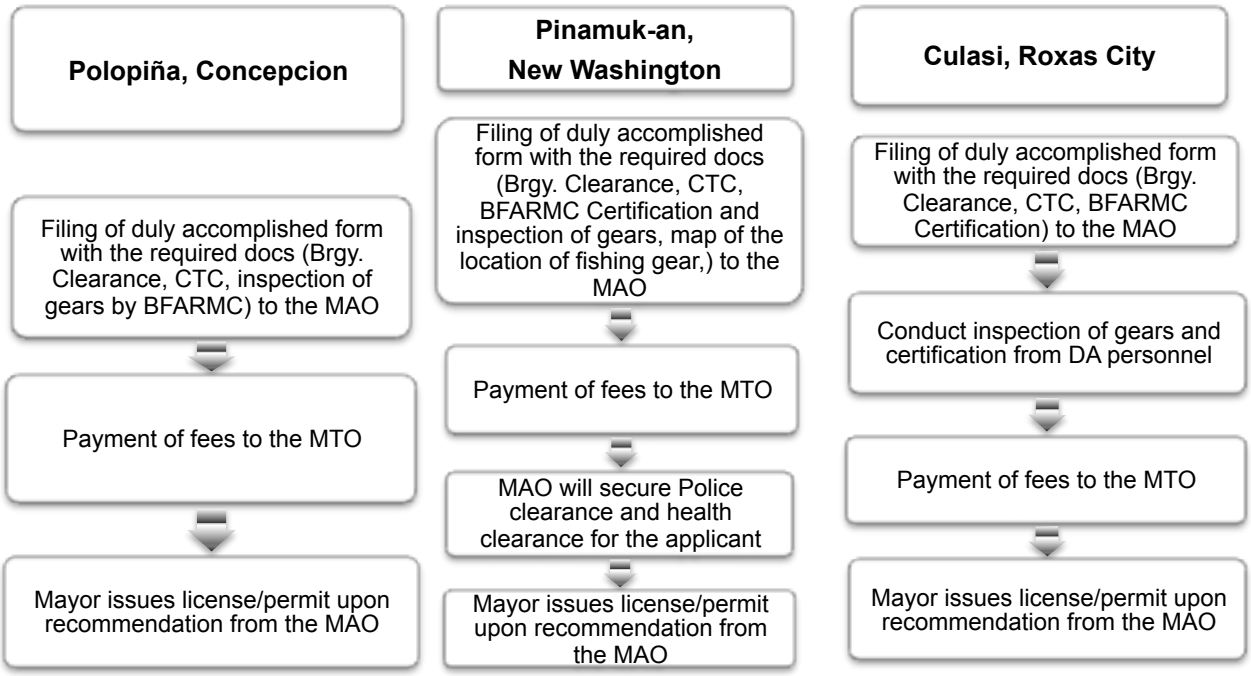

Figure 3. The fishing gear licensing process.

is shown in the case of the three study sites. This factor can be attributed to the lack of database or poor data management of the LGUs' personnel in-charge, making it difficult to retrieve the records on who have registered or not. For the convenience of the personnel of the MAO, they re-register the boat every time the operators/owners renew their license. This practice has implications on the veracity of the LGUs' data on actual number of boats registered in the municipality.

Like fishing gear licensing, the process of fishing boat licensing also involves four local government offices: the Barangay Treasurer's office, MAO, MTO, and Municipal Mayor's Office (**Figure 4**). Some MAO has a special unit that takes charge of the fishing boat/vessel licensing system.

In the municipality of New Washington, the Municipal Fisheries Management and Regulatory Unit (FARMU) is in-charge of inspection, verification, and recommendation of the appropriate license to fish/operate. In Concepcion, the FARMU under the MAO serves as One-Stop-Shop that verifies and evaluates the application, and assists the fishing vessel operators in accomplishing the application for registration. It likewise furnishes a copy of the same documents to the vessel inspector, who in turn will evaluate and verify the application. If the application documents are found in order, the applicant pays the registration fee. The FARMU will then facilitate the issuance of the certificate number (CN) for signature of the Municipal Mayor. Roxas City has a different process with that of New Washington and Concepcion. The fisherfolk will have to secure coloured picture of fishing boat, PNP maritime clearance (proof that ownership is legal), deed of sale (proof that boat was bought), builders certificate, affidavit of ownership to the CAO and the CAO will do the admeasurement.

The MFOs of the three sites require the motorized and non-motorized boats to be licensed before they can operate in the municipal waters. License fees of the three LGUs vary from PhP 20.00 for a non-motorized boat to a maximum of PhP 500.00 for motorized. The main component of the registration and licensing process of the fishing boat is to determine the admeasurement. Admeasurement is the measure of the volumetric capacity of the fishing vessel to determine its gross tonnage. It is computed using the formula provided in the IRR of EO 305 that requires data on the boat's length, depth and width. Furthermore, Section 12 of EO 305 requires the LGU to train its technical personnel with the assistance of MARINA and PCG, to be knowledgeable in conducting the admeasurement. However, in New Washington, it is the fishers themselves who measure their respective boats and submit the data to the MAO who will then compute using the prescribed formula (**Figure 4**). This practice may produce unreliable data and might lead to giving of license for boats to operate within the municipal waters even if they are actually more than 3GT. Dubiously registering fishing boats lower than its actual gross tonnage has been a longstanding issue and constant monitoring and inspection is needed to curb this practice (*Alesna et al. 2004*).

Compliance Rate

Compliance rate was measured by calculating the total number of registered/licensed fishers divided by the total number of respondents. It is assumed that the higher the compliance, the more effective is the municipality's registration and licensing system. A similar study conducted

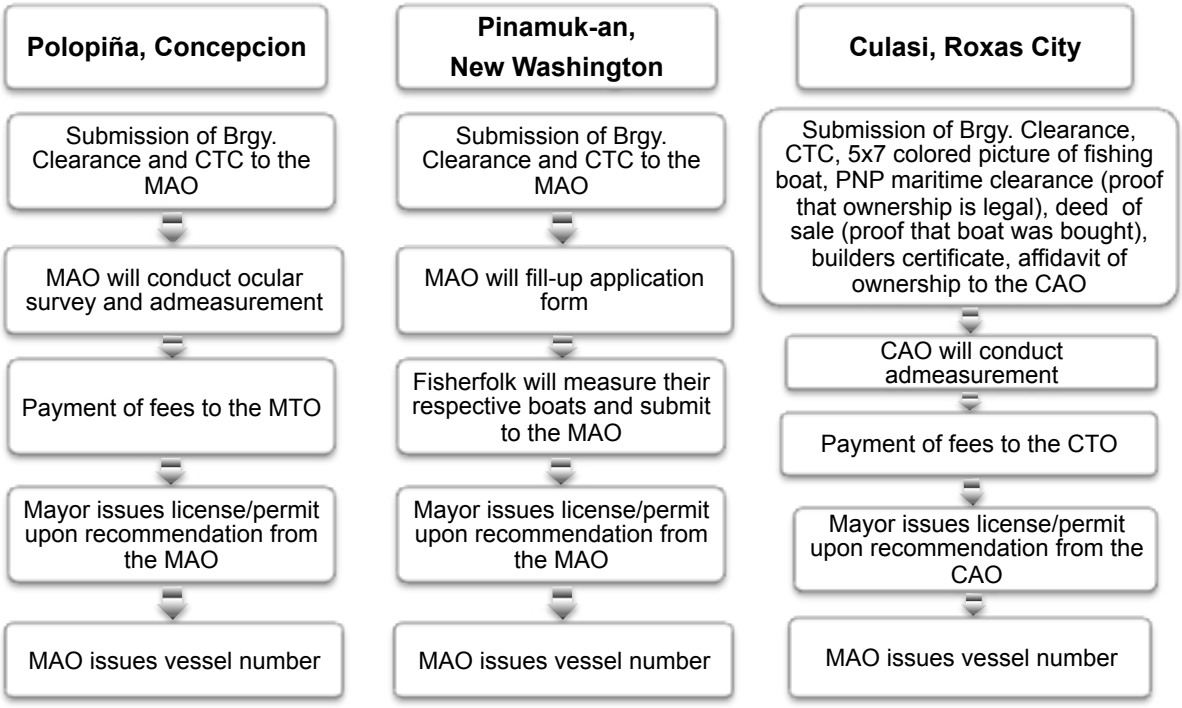

Figure 4. The fishing boat licensing process.

by *Peralta-Milan et.al.* (*2012*) in the fisheries registration and licensing system of Bani, Pangasinan shows that compliance rate is a good indicator of measuring effectiveness of the system.

It should be noted that the rate of compliance with the registration and licensing requirement were based on the answers of the respondents during the survey (**Table 3**). It is difficult to confirm these data with the records of the LGU because of the absence of a retrievable database. However, these data were validated with the local DA office personnel during the FGD. Interview data reveal that majority (94%) of the respondents in Brgys. Polopiña and Pinamuk-an (53%) claimed to be registered fishers of their municipality though the percentage of compliance is higher in Brgy. Polopina. However, in the case of Brgy. Culasi in Roxas City, about 70% of the respondents have disclosed that they did not apply for registration. This high percentage of non-compliance is attributed to the fact that most of the respondents are employed as crew of municipal fishing boats who claimed they were not informed of the need to register with the Municipal Agriculture Office.

The lack of financial resources due to poor income was identified by 52% of the responedents as a reason for non-procurement of license for fishing gear This is also one of the main reasons pointed out by fishers in the study of *Catedrilla et.al.* (*2012*) and *Espectato et.al.* (*2012*). The other 11% pointed out the limited information on the process and they are not required to get a license. Brgy. Polopiña also has the highest percentage of compliance compared to the two other sites. This high compliance in Concepcion is an evidence of the effective campaign of the local DA Office. They set-up a supplementary mobile registration scheme in the form of a "one-stop-shop" in the island barangay. With this, the fishers do not need to go to the municipal hall located in the mainland, hence savingtime and effort both of the LGU and fishers. All this scheme reduces the transportation expenses of the fishers in going to the municipal hall to apply for license. The initiative of Concepcion of bringing the registration team to the people by employing the "one-stop-shop" scheme is a strategy proven to be effective in other coastal areas. The municipality of Dinalungan in Aurora through the assistance of the Philippine Environmental Governance (EcoGov) Project employed the same strategy when their first attempt of registration drive flopped. With the roving registration team, they got more than 80% compliance rate (*Philippine Environmental Governance Project 2006*).

Fishers' compliance is usually determined by the economic gains of breaking the rules compared to the risk of being detected and the economic sanctions for violating the rules (*Nielsen 2003*). People have been shown to evaluate loses and gains differently (*Keane et.al. 2008*). For fishers, they tend to maximize the benefit that they could gain in every situation and compare that cost to the potential gain from non-complying. This behaviour of the fishers, influenced by the system of reward and punishment, is demonstrated in the three study areas. Generally, the cost of registration and obtaining a license is much lower than the penalty imposed for violating the provision if ever the fisher is apprehended. However based on FGD and KII results, most fishers in Pinamuk-an and Culasi for reasons listed in **Table 4** opted not to register or obtain a license. The higher compliance of Polopina can be attributed to its active

Table 3. Rate of compliance of fishers-respondents.

Registration/License		Polopiña, Concepcion		Pinamuk-an, New Washington		Culasi, Roxas City	
		Freq	%	Freq	%	Freq	%
Registered fishers	Yes	293	94	176	53	157	30
	No	19	6	156	47	369	70
	No answer			1			
Licensed fishing gear	Yes	271	87	137	41	55	10
	No	41	13	195	59	89	17
	No answer/ Does not own a gear			1		382	73
Licensed fishing boat	Yes	166	53	17	5	62	12
	No	142	46	310	93	77	15
	No answer/ Does not own a boat	4	1	6	2	387	74

Table 4. Reasons for non-compliance based on KII and FGD.

Fishers registration	Fishing gear licensing	Fishing boat licensing
Lack of financial resources/ Expensive fees	Was not informed about the need for licensing	Use non-motorized boats only
Do not have time	Lack of financial resources / Expensive fees	Was not informed about the need Lack of financial resources / Expensive fees
Involved in gleaning activities only	Use simple gears only	
New resident	Doesn't own a gear	
Does not know	Not required	
Not required	Newly acquired fishing gear	
Access to the required forms	Tedious process; many required supporting documents	Tedious process; many required supporting documents
Fishing boat crew only	Fishing boat crew only	No boat

fishery law enforcement and frequent seaborne operation. which increases likely detection of fishers who are operating without the necessary permits or license. In effect, fishers opted to comply with the regulation rather than paying for the penalty and other administrative sanctions.

It is also widely believed that fishers will comply to the rules if the policy is perceived to be legitimate and fair (*Viteri and Chavez 2007*; *Nielsen 2003*; *Honneland 2000*). Legitimacy of the policy is already established since it is provided for in the fishery ordinance and implemented by the local Bantay Dagat which is a recognized local enforcement group in the area. However, there is an issue on fairness and equity as shown in the responses of some of the respondents. It isclaimed that they are not supposed to pay for the license because they are only using simple gears and non-motorized boats. They believed that only those fishers who are using more efficient gears and motorized boats should be made to pay since they are catching and earning more.

CONCLUSION AND RECOMMENDATIONS

Philippine fisheries are generally under a regime of open access and this has led to its deterioration (*DENR et.al. 1997; Christy 1996*; *Townsend 2004*). Open access fisheries attract too much fishing effort because of the potential profits from harvesting it and thus, need optimal regulation to reduce fishing effort (*Townsend 2004*; *Holland et. al. 1999*). *DENR et.al.* (*1997*) presented a framework on how open access situation in coastal resource should be managed with registration and licensing as among of the viable strategies.

The three sites analyzed in this studyshow that the process of registration and licensing vary from one LGU to another and there is no uniform procedure and requirements implemented. Except for the LGU of Concepcion, compliance rate for fishers' registration, fishing gear licensing and fishing boat licensing is generally low. This can be attributed to economic factors, fairness of the system, and laxity in fishery enforcement to apprehend and give sanctions to those who are not complying (*Nielsen 2003*; *Honneland 2000*). This study also noted that the "one-stop-shop" strategy that brings the registration team to the people (especially in island barangays like Polopiña, Concepcion) can increase fishers' compliance.

The municipal fisheries registration and licensing system is backed with sufficient enabling policies, from the national level (RA 8550, RA 7160, EO 305) down to the local level (enabling MFOs). The three LGUs need to revisit the list of gears that should be given license and should be strict in imposing the law. For example, the granting of license for stationary gears like liftnet, fish coral, and filter net must be regulated and should follow the zoning and the specified distance between each structure as provided for in the municipal fisheries ordinance and in the comprehensive land and water use plan.

Drawn from the experience of the three sites included in this study, the following are some of the policy recommendations being proposed to improve registration and licensing system as a fisheries management tool:

Determine the carrying capacity of the resource as basis for limiting entry. Registration and licensing system is seen as a viable strategy for regulating access. However, interview done with the stakeholders in the three study sites showed that the LGUs did not set a limit on the number of licenses they grant. This is also the case in the country's licensing system for commercial fishing (*Trinidad 2004*).

This practice does not take into account the capacity of the fishery resources to support all registered and licensed fishers. National policies (RA 8550 and EO 305) mandates the LGU to take into consideration in its legislation the factors that will guide them in approving the registration of fishing vessels, such as the carrying capacity of its marine resources. This matter is complicated by the fact that the carrying capacity and the Maximum Sustainable Yield (MSY) of the coastal resource in the area are not yet established. For this reason, the LGUs claim that they do not have basis of setting the limit on the number of licenses to be issued. There is, therefore, an urgent need for studies to establish this knowledge gap as a basis for regulating access to the resource.

Standardize the procedure. There is no standard procedure in fisheries registration and in securing fisheries license. The three municipalities have their own set of forms and process. There are efforts right now to standardize the process. For one, FISH Project tried to develop a fisheries registration and licensing framework. Implementing a standard procedure for all coastal areas will improve efficiency of the system and minimize "red tapes" on transactions.

Develop "one-stop-shop" scheme. This strategy of bringing the registration and licensing in each coastal barangay especially in island barangays was proven to be effective and efficient. This strategy gained a higher compliance rate in licensing and registration for fishers, gears and boats.

Establish fair basis for license fees. The general complaint on high fees and costly documentary requirements are seen to be the major reasons for non-compliance. Respondents have indicated that some fees were set too high. The perceived high fees appear to support the notion that the LGUs view fisheries registration and licensing system as a revenue-generating exercise rather than a management tool.

Improve compliance monitoring and enforcement. Increasing the risk of being detected and consequently paying the penalty and other administrative sanctions will deter possible violators.

Provide funds for the establishment and maintenance of databank. It is only when baseline information have been established and maintained effectively through a retrievable system that it can be used to provide good basis for decisions to manage municipal fisheries. LGUs should allot part of its CRM fund for data banking and maintenance as part of the delivery of basic services.

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