The Implementation of Fishery Laws in Iloeos Sur

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Abstract

Tke stdy was conducted to deter.be the extent of implementation of the fishery laws in the province of llocs Sa lt also cume p with a socio-demographic pofie of the respondents. Llkewise, iu identfied tke fishery laws wade and inplewented hy the local government wits, The estatikskmwent, operarkon offlshlng rfrasrwcres ard the protection of marine environmentwere also asescd,

The study was conducted n 18 coastal municipalities of loco Sw; namely, Sinai, Cabugaa, san Jan, Mag;igal, Sta DowiMgo, San *PWteente, Sta. Catala, Vgae, Caoayan, Santa, Marwacan, Sa. Maria, San Esteban, Satiago, Candon, 8ta. Lucia, Sa,* CCra, *and Tagudin. The respondents* were *the heads and personsel of the local goverunent units in thus said wswie ipaliies, 'This study employed the descriptive method of research with the aid of a quetioraire supplemented by interviews.*

Results showed that the koeal goverent wnits were do.bated by males, Nosily married, 41-$0 yeas old ad wost of then *were baagay captains. "ke most comaao wdwaasces passed were agadost llegal feking wwethds with the use* of dyrawie, *cyanide, awd other siwilar activitkes. 'The maieipalisy of Santiago had the mwwost number of ordiranees made, The respondents whick also cluded legislators were rt aware of the folkowing: the fishery laws passed and implemented; tle violations wade by the fisherwew; the establishwent* and operation *of fishery infastrusses ad the regulations bswolved; and how* the *mare ereironuwewt as gen* protection. *To sww it all, the fishery laws were fairly implemented hy the local government units.*

The following recommendations are presented by the researchers: the leak goverwrsew¥ wits locos Se should deepew the awareness on tke exitingfskey laws, pass *wore relevant owes and implement the* awe; *the PA should help in the strict implementation* of *the fishery lass; the fishermen should strengthen theh capabliry is organirtg tkenselves purposely to cease illegal fishing; sewinas-wworkshops and*

trainings on he effects of' il Legal fishbwg on the ewvlrowent should be conducted so that the fishermen will walue *the unportanee of freshwater and marine rouges.*

Rationale

In many countries, lncluding the Phitlpplines, people obtain more than halt t' thelr animal prteln det fhm fish. in ome smaller island natla, ts figure las even hher·

When ficherles decline, the economies ofcommunities depen dent on the ca are drastlcally affected. More than 2) llln people rad the wrid – half of them *ln* developing ounries – depend on fisheries for their income, either dlretly by catching fksh ra workers in proceslg toclltles,

According to the UN Food and Agrkeufure Organization, *70%* of the fish peels that are commerdalky lnportant re overexploited, enught to the fimi, o recovering irom overexploitation. Other fishing practices hat are more destruellve and genrsliy llegal lnelude the wse of dynamite and cyanlde t ilk or su fish. These make it quite impossible to bring back what has been damaged or destroys – he cork reefs and lsh populatlona.

As tle status *of* the wolds fisheries become more perilous, nations, regions and states sre beglilng, to cooperate to solve preslg problems. is the Philippines, the government glves fishing communities 2S-year contracts to manage aoslies, These coimunltlca have been able to estore msngroves, st up o-ashing areas, snd sueeessfully lmnlt fish eatehes

Fisheries are difficult to manage effectively because they exist in a coaplex eeoystem eonslered as a eormon property le. tour owned by all citizens *of* s nation. ome management practices include gear control which regulates the sle snd hsne of the bls lp fljing nets; 9esank ash; elesun *of* the eritieal habitat area to protect the breeding grounds of threatened fish species; relrletlg the slze t the fish to he harvested; etablishig quotas that limit the mmber of fish to be caugh; and limiting the mumber *of* days that a lvessel can fsh.

Although various exterua! influences (e.g., national economic policies, iaterational dor agenoy prlorltles} direet the allzatlo *of coastal resources,* the key layers in coastal resources management are the local resource usrs, techkcal experts and the beak government. The uavokvent of local nesource users vares from passive to active. Passive participation ranges from simply responding to *latervkw or* te ocean#anal attendance to maetlnga. Aetle

participation oay entail planingand progrsmring *of* activities, **ad drafting** *of* ordinanees. Qutakdo experts/groups ote provide teehnleal asaslstanee through regeerch and community organizing. 'TTey generally conduct **research and** rveys to prvlde a hsellne plaa, The *harangay* ad unilnek gorverents provide poltical support by issuing auale!pal ordinsees. 'These ordinances covert the cs&bljhment of {hnhery sepkeaiahm.ptre, peohlbltlea fdptruetlwve fishery etlvltleslprsctkes and physical zing *of* municipal waters (Alilo ad Menez, 3993).

ln llocos Sur, municipal fishery ordinances have existed fr the past dee3de. O studies had been endued to ates tho extent *of* luaple eentatln of these laws; henge, thero was a need Or this study. Data gathered serve as eye-*Openee to source veers,* loeal govern9ent ofclla, government organizations, and the Bureau of **Fisheries and Aquatic** Resources **on how the** fishery haws of'the prove are iraphmented,

9bfetlves

Thls study aimed to deterine the ext.nt of the implementatioa of fishery hawa la the provinee o¥' ilea Sur.

Specifically, i aimed to

• deterle the profile of the respondents la era *of oelo-*demographic characteristics;

2, ldentlfy the flshery kewa node sd lnpkemented by **the loeal** government units;

3, deterle the establlshmen! nd operatlana *ot* fsbery lnfr@structures and the regulations involved; and

4, ses hw the marine en:nonnen **wa given protection,**

Recvk of Literature

The activities of resource users ln coastal **areas case a great deal of** slres:a on nesrshore 3sherles la the Pbllkrplnes, *Overfishing, overcopllzatlo,* llegl fishing methods, and polkaion severely deerense fish yields **and adversely** ff bablots *l earshore water.* Pishlg #tort la beyoad the level that ere?ates ma:imum sustaiable yields for many smell **snd large** pelagke species. angnove cutting, dynanle flhig d eløa pionlg degrade fhsh habitats, swsch as estuaries and coral reefs (Gomez, 198±: and Panly, 1989). The catching oc'rvelk tah, pothtl ta ldustrles, and slletloa caused by deforestatlon depfete f.sh yields ad habits {Depntmeat of Agriculture, 1991). The lack of er&cement *of fislqy* laws especially le preventing hare eomnerelal veel

from fishing in mesrshore waters further depletes nershe fisheries (Pomeroy, 1991).

n a study presented by eve)lve durlg the 4 Annal Comroo Property Conference held in Msnils in June 1993, be examined **the relationships** 9mog ¢sure ens In Sarngnl Pay in tea of tbs way they pen:elve& the fishery resources and other rsource users. The **paper argued** that these perceptlos were importer¢ to understand hecue *of* te wy re4ounce users formulate strategies to compete fr aeces and con±l over re8ore.

Municipal fisheries perceive the encroachment of commercial vessels in mwok:lpl waters, llcgat &slag method of *her tihcrs* and unequal aeces rigiits as the major problems in municipal fisheries. Municipal fishers coplai aha sher who use nets mallr tba the legal three eentlnetera nlma. They also comp!ain about fishers who come from other coastal villages using dyales over the eol *eefs* ear thelr conmaitiea, her *ears of* municipal fishers include pollution caused by prawn *frers* and the use of polsn ie flshlg. W/th these empl»int, they he'eve that the government does llle to stop thee llkegal praetleea.

Municipal fislers also believe that they do not have equal access to fishery esources becouse of the kk of ehel and inadequate shlng gear. Surveys codueted by a local NGO indicate that over hal? of the municipal fisher receive no gslat@ne a ayoe, t those who **receive some fra** of assistance, majority receive aid from the fishing megnas$es and NGO'a Furthermore, 4 reult f a sueeenfl pr@grams *eondoeted* by «ea Na, they observe that tde artificial reefs csn tract mre fish, but they lack the resources to bald per: et artlfielal reefs.

Mckay (1993) sressed in his paper the need fr sustainable manemet of fabesy resouree. The peper applled a fanework developed fiom an analysis of' tradltnal common propenty manegemet o sone preliminary tents at implementing communly-bscd manageaent. W poitd out some of the gps in current projects ad sctivites, particularly the [sck of attentlonto the aeees *zad* use rght *laxes,*

Acording to Hingre and Rivera (1991}, the military and police play a lmnportant rokc la sustalnable ushery managemacnat. They often play ekietg roles, they may be closely involved l the illegal activities, yet thy sre also the enforcers of tke rwles, hey have hen lupllated as tradera en} sapliers of dynamite l blast fishery in the Phif$ppines. In Indonesls, military conpanies re reported t he ia jalnt ventse relatlonahlns whh frelga fhinag eonpenies implicated in cyanide fshlng fr grouper **and napoleon** wrasse. In many communities where lkegal fishlag is petkeed there ls an ltlmte relationship between te llegal tisbers snd the ratlary and police.

'The military and polke can also be effective enforcers **and ca assist** cotmunltkea {a dealiog w4h f@hers {om other eomrult.lea who are often ired, One of the importnt steps in establishing effective community. m099egemet la fr the conmun#!y mnegepent hatlutio to catgbllh else reltions with the enforcers. This may mean "feeding" them (food **ad pocket** mey} *l g* slmllr way tbe [legod *fishers* do, The enforcers slo seed to be sensitive s to when to intervene particularly in cases where there ls the posslslhty ofred et@llat}an ggist a community.

Local government leaders are also very important i the implemesttion of cemulty management, emllon ateend, Cebu w the fr4 wellnesnaged marine pnel in the Philippines Established in 1974, i consisted of an u-fished mere nectury end e trodltlogl fshleg area whene destructkve (sling techniques were banned. These munlepal regulations were reinforced in 1$98) by a national gdmnlstrt{ve onder deelarig **slgeon** a National Plsh 8actuary. Then **a** new mayor who **was no-supportive** of the sanctuary led the illegal lshlg getivl#es that nesubsd to the beakdw of the sanctuary. Subsequently, the enforcement system» broke down **snd hesvy** illegal fishing occurred in 194 {WVhlte, 1989), The #sh pehs dectlned preelpitwsly sad the see was closed galo in 1988, The biological productivity of the reef somehow recovered and lshlg was per)ally opened l 1992, A present, there 9re fears that overflahlg and reef damage **are** cotinuing (Akola **and Rass** 199/). **Pomeroy sand Samonte** (1993) also stetd that local **mayors play a nage** af tokes le promoleg qustal»able **flsher** management l $aa Miguel Bay, Betnagas, Phlllnple$.

MscKay (1991) further studied the case of San Salvador Island **in** Zamhales k terms of nltorlg and enfoeemct f rules, Results dleated how complex the monitoring and enforcement cuid be and that all levels of guscermet needed to he lvalved wlth the ommaunlty, . Par toe the ip/eventstion of ccrmnity-based managenent, there were national fishery negule#ks {orblddlag the use *of* cyale and dynamlte and spa/! naesh neta but were not enforced. Commnuaity organizing resulted in an increase of community per pressure on tb cynlde Gsbe {wlo belonged to a mlgen eomunly) to stop their *destructive* fishing activties. This group then **became more** closely evolved ad aslsta ln settlng oew rues, tCpllance **was** neifreed by comuniy sociel sd religious pressure. Lcal community **members became** wakens of' the enctery at hey could at cle ues oa sheers O **other** communities who *were* often armed, Enforcing the **rules more widely involved** the *baragy captain,* th, col eayar, the harangay pee and oder blade, citias srmed fores genggrapfi l unk (CAFGU) with **sore additional support** trow the Philpple Cosetablry and he Phlllple Coast Guard. Thla euled in increased eforement with seizngeof fish, **gear and boats, heavy fines and** Jsll sentences.

Methodology

Researel» Dslg». This study which was conduced from January 2) 1 -- Deenaber 2)} employed the descriptive me!hd of' neerch with the si4 of a ques{ona ire supplemented y we;views. hut of the date goathend, *findings* were mmar had, analyzed, and Hterpreed,

Pepaltken aad Sussple. There were 18 coastal municipalities of locos 8urvolved la thls study, 'Theac were $inalt, Catgaa, $an hen, Megalogel, So, {omingo, Sena Vleente, a, (@taline, Vgan ad Cosy Kor the 1 District and Santa, Narvaean, S». Maria, San Esteban, Santiago, Candon, Sa. els, ... Cruz, 9nd Taguda r the 2" Ila±leg, 'There were 1$$ *respondents* which included the f!lowing: mayors, vice mayors, vie govemor, SP membor l-eharge of agriculture/fisherles, $% *ember l-charge of* agricultue/'fsaberles, chlaen of'FARM;'s, Barag ay Captal8 and Borag:y Secretaries.

Statistiel Treawest. Frequencies and percentages were used in the analysla *of the* @eta gathered, The weighted men w wed to mcue the extent of implemmrtatan af tte fishery laws. The following range of seares was used:

Rog ef Sers	*Desverl*
32-4.40	Pully Iplemeted
2.4-3.1	Well-implemented
1423	Felty kmplemeted
0.8-1.$	Swhat implemented
0-4,7	Never implemented

Discussion of Results

This portion presents the analysis and interpretation of' data gathered in this study,

I. Profile of Respondents

es. As refled in 'Table l, out of I5 rspods, there were more 4ls *(At4 or* 92.9%) a he locl government unls than Pents A1 *or* 7.1%). This finding implies ttat there were more males occupying positions in local government ueits tbgn emales,

Civil Status. Among the respondents, 133 (85.81%) were married, 11 (7.1%) were single, six (3.87%) were widowed and five (3.22%) did not give information on their civil status. This implies that most of the respondents had

families and parental responsk{ties which wwere sdded to their duties and responsibilities *in* their prtkekarjoh,

'Table 1. Prfle ofrespondents.

A,

Profie	No.	%
Seif		
Male	144	**92.90**
Fesale	11	7.10
Ci 4etus		
Sile	11	7.10
Mi±red	133	**85.81**
Widow/er	**6**	**3.87**
No·	5	3.22
Age		
21-30	4	2.58
31-40	21	13.55
41-50	**58**	37.42
51–60	**48**	30.97
Give	**16**	10.32
Dose	8	**5.16**
Posktia ia tte L@es4 Goernet Jalt		
Lsyor	10	**6.45**
Vice Mayor	20	12.90
Vice Comar	1	**0.65**
SM Jasta ofAi-i: be±ies	1	*0.65*
BM In change o?gr!-Flglcreg	20	12.90
FARM Gceiran	12	7,74
gzpgcy Coton	$0	32.26
Peggsise	41	26.45

Age. As shown in Table 1, 58 (37.42%) belonged to the age bracket of 41-50, 48 or 30.97% belonged to age bracket 51-60. Only 21 or 13.55% belonged to the age bracket of 31-40. Eight (5.16%) had no response and four (2.58%) belonged to 21-30 age bracket.

Position in the Government. Less than two-thirds (50 or 32.26%) of the respondents were *barangay* captains, 41 (26.45%) were *barangay* secretaries; 20 (12.9%) each were SBM in-charge of Agri-Fisheries and Vice Mayors; 12 (7.74%) were FARMC's chairman, 10 (6.45%) were mayors; and one vice governor and another SPM In-Charge of Agri-Fisheries. This implies that barangay captains comprised the greatest number of respondents from the local government units.

II. RFkery hrdlses of tke Dereut Meaklpwlites

Bsed on records available in the LGUs, the following are the ondinntes made nd impleoenpd. 5anti@go had the oost pubes of ordinances, followed by San Esteban, Cabugo, Magsingal, and Cando. 'The mieiplilies fta, C'nu nd Tagdin had no fishesy di»an _

Flet District of Iles Sur

Sinait

- *Odin9nee gist* illegal fishing nethods wsing dynamite nd cyanide and otter similsr activities

Cab#go ('The Munk/pality f'bung hs existing fishery lws b» 1 S in the process of codifying the fishery laws.) The following are e f the existing odinaes:

- Ordinance regulating the use of noxious or poisonous substances, ele~rig and air epnessor, tte,
- Ordinance providing 4 system of identification or color-coding of mpotrive} ad ton-motorized hma o ts Mo identify pooching fisherman
- 0rdinanee regulating the harvest of different res f fishes {bogus, seabess, harpes, etr.)
- Hg clipper 4 pn4ping 1#fa etch{pg mil!ms Pf1Pd9 vi)g 21 typie O cynide and other similar activities

San Juan

- Ordinance regulating fbing eriviries *sad/r* fisheries in this mauniiplicy.
- 4dine¢ prohibiting fishing with the use of dynamite ad poisonous substances

Mogslg?

- Ordinance prohibiting and penalizing illegal fishing **with the** use of dynamite, rte.
- Ordinance regulatig **the use of** spotlight **and other** shiners as fishing cqupmept
- Ordinunee barning the f@dig of pandas
- 3ndinunce pohibig illegal ve of dypie, txie materials *in* etching fish **and other marine** products within the municipal wasters **of Magsingal**

Sa, Dowlop»

- Ordinance against ilieggifisting methods such as **the** uso oaf dynamite and toxic materials

igen

- Ordinance prohibiting the use f illegal fsbig aberials like dymite Mens$ *bkatot*

Caoayan

- Glance poh{biting a$ penalizing al illegal fishing methods
- Ordimce regulating th use offine meshed pets in fishing

S'an Vcente

- Ordinance strictly prohibiting **the use of** illega! fishing eterials lloe dymitead *bha#ot*

Sa. alias

- 0ndi»anee establishing PAYA) in this mwwwipality {9$3)
- Ordinance prohibiting **and** penalizing all illegal fishing **methods and** regulating Bhe use of {ie msbedwets *in* fshg

[redacted]

Rawat#iat a#t*Sar*

- Ordinate beatetisgthe use *of*cyanide id dyiarite fishing
- An ondine regulating the cateb ofpo#as fry

Sta. Maia

- ·¢ Ordinane banning the disposal of garbage alng rirs Md 9chn
- Ortinansbarntiutg the use ofeysidead dyatit f6sting
- }pdipa9c¢ gg!at@g the ue of fine ppeshed et9 ad providing the sin ofnets frrivers **ind** shores lines
- Ordine¢ ngwaling fishg or *fisheries* in the diffnpt eosl! *barangays*

Sau Esteban

- Ordinance regulating fishing and/or fisheries in the municipality of Sm Estebsn
- Ondinanee prohibiting the use of compressor in fishing **along the** fishing 208Ms ▾ 5$f *1$* and pealizlpg vol8tors then¢of
- Ordinate prohibiting etchingpa&as, *tinongs.,* ete in the moth of August
- €Gdis#nee pwohibitig illegal fishing with the ue f dy4anise, dim, compressor, *odo-od,* abiogg
- ¢ rdintee pr/biting he ue ofsmall sine fisbing oets

NOTE, [he municipality also enforces the **provincial ordinance oe color-**coding ofotrbot vessels.

Santigo

$sbery ordinates had hen pseed by tbe #8nggwhag Baya evena before **the spprova!** of RA 855). In this **municipality, the** following are some ofhe diet» p$d and *kepa* ,

A. REGULATORY ORDINANCES

- ¢ 9dine prohibitig the 4pee of fine mesl$ nets
- Ordinance prohibiting the use of illgl **compressor, poisonors and** noxious materials

Ordinance providing color-codes for motorized and nor-motorized *bancas*

- Ordiu»nee providing for the negtry of tumicipe! fistr folks
- Ordinanee prohibiting th gathering of fish corals and *he!ked$* mollusks

B. REVENUE ORDINANCES

- Ordinance **providing for** classification reatals and division of punjeipel we$rs;
- OrdioAprovdiug rants ft fish orals, fieh peas ad fish digs
- Oise requiring license fees fr {ly nets
- Ordinance providing for the issuance of individual kiceases in case o holders opt to {ave fishing 2ns

sndo

- 9rinate prohibiting the use of fine meshnets
- Ordinance against tle us of compressor and poisonous ad axjrus materials
- Ordinance regulating fishing ado fisheries in the municipality **and** for or purposes

Sa Lwckr

« Misting meicipa! *fishery* ordinance ip»9ne with R4 $$$$

Sa. CCra ad Tag«din

None

Table 2. **Nuber** of fshery **ordieees** paved ageist ilegal fkiig methods be en the@wanengs of the rep99s@en ,

Nrater of Or@isarces Parsed	No.	%
Provisial Level		
1-3	48	*30.97*
4-6	20	12.90
7.9	-	-
10-12	1	0.65
13-15	-	-
16 and above	I	0.65
No response	85	54.84
Bukeipal **Level**		
1-3	94	*60.65*
4-6	19	12.26
7.9	-	-
No response	42	27.10
laraagey Level		
1-3	57	36.77
4-6	14	9.03
7.9	2	1.30
No c=+s	82	52.90

Table 2 presents the number of ordinances passed on illegal fishing methods has$ on the awareness of the nspondents, in the provincial level, 4t o 30.97% were aware that there wee 1-3 ordinances passed, 20 or 12.9% knew f 4.6 one said 1)42 cl another kpew of more than l6 *ondinanes* pod, Howevar, 85 respondents had no response, 'This implies that majority of the ft+pent; were pt aware of the *flery laws psd* in the provincial kev}.

l the municipal level, 94 or 60.64% of the respondents were aware of 1-3 fishery ordinances passed; 42 r 27.10% had no response sod 19 or 12,26% aid 46 ordinances were passed. 'This implies that few ordinances were passed nd i least the respondents from th municipal overt unity wewar of these isws.

ln tb bkarangay kevck, mjoriy (82 or 52,9%) gve*n* rpors, S7 or 36,77% sai} 3-3 *ordinances were made;* 7# }4 r *9*03% knew of 4-6 rims made. Like the results in the provincial level, the *barangay* captains and secretaries were not alo aware of the fishery laws peed in the different *haragays*.

III. Compliance to the Major Fishery Laws in the Local Government Units

Table 3 presents data on be issuance of licenses for the operation of fishing vessels, The data is bed o th 4wanness of the nespoden4g,

Table 3. Issuance of licenses for the operation of fishing vessels

Isusnsat Liens	Na. of	%
Baler f Lkeesse used *for* Fa'tag Vessels Wekghtag 3 Too sud above		
1-3	II	7.1
4-6	'	'
79	1	0.65
10-12	-	'
13-15	-	-
16 and above	S	5.16
Nueaber Leees (sued *tor Fling* Vessels WelgMing Less than 3 'Toms		
1-3	1	0.65
4.4	5	3.23
7.9	'	-
10-12	-	-
13-15	-	-
16 adabov	7	5.18

In Table 3, 11 respondents were aware that 1-3 licenses were issued to fishing vessels weighing 3 tns nd above; eight r $,36% wen 4wre of more than 16 licenses issued **and one respondent said that** 7-9 licenses were issued. **Moreover,** 9even or $.&1 *of the respondents wen* awe that mone than 1€ licenses were issued for fishing vessels weighing less **than 3** tons, five or 3.23% knew of 4 ad ope sid there wene only 13 liens irued fr smaller vessels,

This implies **that there were more licenses** issued to fishing vessels wcihing non ththr tons bcrre mon specs ckd be ccommolted *in* these big vessels. It also implies that most of the **respondents were not aware** of the issuance of licenses to f6sling veels ad'or that only *a few* rally aplie for liceses because the fisheen did ot lave or could not afford to buy fishing vessels, #4 cul@ also be that the ffishermen used fishing vesels without license,

Table 4 presents data on the establishment and operation of fishery infrastructnes hoed ou the awareness of the respondents

Take 4. Estts[redacted]and Operation of **FElery Itasretunes.**

Isuaces of Lenses	**No. of Resrandsets**	%
Naber of' LJers fr Flsk Cages lssued		
1-3	46	29.68
4-6	17	10.97
7.-9	2	1.3
10-12	-	-
13-15	.	-
16 and above	*22*	14.19
No response	**68**	43.87
Nuber of Feetlwg Port		\
1-2	72	46.45
Nor9e	83	*53.55*

As to the number of ticeses issued for the operation of' fish cages, 6& 43,87%, respondents had po response, 46 or 79.6$% knew of 1-3 licenses is&; 22 or 14.19% were aware of mre than 16; 17 r 10.97% said 4-6 and two or 1,3% *swcres$ 7-* lines wse issued, This implies that few fol cage owners or operators were issued ilieeses, hence there is a necd to check on illegal fish

'There were &2 r *$3.55%4* of the respondents who gave no information about the number of portstructed or being used in their places, {Seventy-two r $,45% were 4wane of 12 fuctjning fish ports, Th implies tht more thn

half of the repondents were not aware of the existence of fishing parts in their 8ras.

IV. Management Practices and Protection of the Marine Environment

Table $ presents data on the management practices sod potegtioa of snariuevirnnt ... the Boca! goves$unit; fleo Sur.

The table slows *tdat* 78 or $032% were not sware of say violation zuade ginct *the* oedinaces providing *fr* the protection of the ..... environment. Fifty-on (Si or32,9%) kaew of 1-3 violations; 20 r 12.9% we ..... *4-$* ..... fr ... *2,58% krn ... 7-»* .... two ... . wees a% of mane tbmn *I6* a;is violating the laws on the preservation of the marine rironrent.

S to the umuber of cuses filed in court relative to the violatioas, 9? or 60% d i nt res p *t» the* item, *$3 or* 39,$8% wee war *of* 4es; two r 1,29% esch said 1-3 and 79 cases, respetively; and one was aware of 10-12 cases fked in the curt.

Oat of 155 respondents, 104 r *67.09 4* dd ut respond to the iten regarding the number of revoked licenses to fish in muykeip@l waters; 46 r *29,$8%3* were aware of 4-; d fie r *3.23%* knew of 1-3 revk} linses.

As regrds the number of cyanide detention centers established, *$5* or $4,84%4 *did ot respond* to tis particular *iers;* 6? or 43,234 wese aware of 4-6 centers; and three or 1.94% knew of 1-3 cyanide detention centers established in *their paces.*

As to the nuraber of informatioa dissemination programs on fishery laws conducted ... their respective areas, 3O*4$*.16%% *&id* not give Any repose; 6$ or 43.87% were aware of *4-5* programs; 12 or 7.7494 knew of 7-9 seminars ondueted to inforn the constituents *rgs$ing* fishery .....

As regards the number of fish wardens deputized, 75 or 48.38% gave no response; ?1 *or* 45.31% tte that there were $-3; sior3.$7 were Aware of 4. *6* and ttre r 1,94% wntimd that there wer more than 16 deputized ff:h wsrdea.

Table 5. Protectioa of uarline environment,

Protwtin of Maris Evirss omot	No. of Rgondeat	%
Nuber of viirtios made		
1-3	51	32.90
4-6	20	12.90
7.9	4	2.58
16 and above	2	1.30
No response	78	$0.32
Nuber of eases fled is eoart		
1-3	2	1.29
4-6	57	36.77
79	2	1.29
10-12	I	0.64
No response	93	60
Nuber of revoked leases to fkl i aa kipal waters	5	3.23
1-3	46	29.68
4-6	14	67.09
No response		
Number of cyanide detentions enters	3	1.94
1-3	67	43.23
4-6	85	54.84
No response		
Namber of tt to dissmtmatton programs oa fishery las	3	1.94
1-3	68	43.87
4-6	12	7.74
7-9	I	0.65
10-12	I	0.65
13.15	70	45.16
No repose	71	45.81
Naber of fish wardes depatizad	6	3.87
1-3	3	1.94
4-6	75	48.3$
16 and above		
, No response	65	41.94
Nuber of'sactarleas established	4	2.58
1-3.	3	1.94
4-6	3	1.94
7-9	&0	51.61
16 and above		
No response		

Out of the total number of respondents, 80 or $1,61% did not give my infnatin on their avrwnoss of the establishment of fish saturies; 6$ or 41.94% mentioned that there were 1-3 satuarics; fur or 2.58% mentioned 4-6; ad thre ar 1.94% were sware that there rere more ttr even ff:h sctriez establish in their locality.

V. Implementation of Fishery Laws

The laws that are included in this part of the study were made sd promulgated by te law-making bodies at the national level ad were implemented at the local kevel. T'ble 6 reveals the extent of implementation of fishery laws in the povire of {locos Sr.

Table 6. Implementation of fishery laws.

FsMery Law±	X	DR
1. The State shall protect the natio's marine wealth in its archipelagic aters, territorial seas, ad exclusive economic zone and reserve ls use and enjoyment exclusively to Filipino citizens.	3.71	Fully implemented
2. Local Govemment Code of I99I, Rep. At 7160 Sec. 149.	3.23	Fully implemented
3, Fisheries Administrative Orders		
3.1 Regultions goveming scientific examination of fish caught or curried by fihing boats and for other purposes.	1.79	Fairly implemented
3.2 Coliction of fees incident to the filing ad disposition of protesns, appeals and other petitions in counction with the administrative settlement of cli mm» and conflicts on public fishponds or fisbery conssbs, etc; domain of the Republic of the Philippines under the Administration of the Bureau of Fisheries.	1.37	Somewhat implemented
3.3 Collection of fees for cerni services of the Bureau of Fiseries rt specifically provided Or in the Fisheries Act	1.30	Somewhat implemented
3,% Regulations goverrng the issuance of fishpond pemts and/or ksses on public forestied.	1,64	Fairy implemected
3.5 US and rvgulatkms governing importation of fish and *fsbery/equti:* product.	1.57	So0mewtat implemented
3.6 Rule and regu leis on commercial thing.	1.96	Fairly Implemented
3.7 Adopting all exitig rules and regulations on fisheri	2.39	Well-implemented
SVGriii WeftedMe.a	2.15	Falrty Impkemoated

It can be observed on the table that based on the awareness of the respondents o the extent of implementation of the fishery laws, two were flly implemented with weighted means of 3.7i and 3.23. The law on the adoption of all eisling Laws dl regulations n *fisheries* was wefl-implemented as evikeneed by a weighted mean of 2.$9. Three administrative orders on fisheries were fairly impleren;ei, The administrative onkns on the coll:tionof fes nd rules ad regulatioas goverging importatioa of fish and other fish products were somewhst *implemented*

As a whole, the fishery laws promulgated by Philippine legislators were fairly implemented in the province of llcs S as evidenced by the overall weighted men of 2.15. This calls fr an exteusive implementation of tho fishery sws at the provisial level.

Conclusions

Based on the findings, the following conclusions were drawn:

1. The local govemmeat units (LOUs) in llocos Sur are doinatcdby male *barangay cptaius* who are mostly marid an 4I-$8 years ok#,
2. 'The municipality of Santiago, Ilocos Sur had the most number of ordinances p:de.
3. The respondents who were mostly legislators were not aware of the follbwing,:

a) the fistey laws mde sand implemented
b) the violins made by tie fishermen
c) the establishment and operation of fishery infrastructurs and the regulations involved, and
d) low the marine eavircmentwas given protection.

To syn it»/t, the fishbry laws wee fairly implement! by the kcal govemmemt uits in the *province* of {los Sur,

1emrendations

l. 'The local government units in llocos Sur should deepen their swarcnss on fishery laws, Thre is a dire need to ixvte *adept {egisl#tors* ad environentzliis to speak on Fishery Laws and Environmental Management end Practiau. There shoukd bc close z! cantinuons ccar±irzticn of the LGUs with D}NR, BF'AR, PCAMRD, etc for more informatioa.

2, The al govemmet units in ts Su especially the mi insl ad barcaruy 0ff5iaL, shuk! make and ....,lemeat the fishery ordian;cs, T'be PP

being tne deputized implementers of the laws of the land should strictly eaforce the !ur.

3. The fishermen should strengthen their capability .in organizing themselves purposely to casel egal fishing.

4. Fishermen should attend semiasr-workshops ad trainings regarding the effects of itlegal fishing on the eaviromet so that they will vale the unporane of freshwater ad marine resources

S, A similar study which includes other varabis is highly recommended to be c>ad±ct.

Refierences

ALIRO M. **PORFIRIO rd MARIE ANTONETTE JUINKO-MENEZ,** 1993. *Whal is .awwwwanAho ha Ma40gen of ks Pk$ipp Ca4g Renowns?* UR-. MS1, Diliaan, Q.C., Ptilppims.

OLIVE, STEVE, 1993. *Te Power of Perceptions: the Rake and Effect of Perceptions cw Flshewkes Nan;gem in Savgwk Boy, Fillies.*

GOMEZ, **E.D.,** 198, *Owrview af rv tranmental Problems in the East Asian Seas Regions.*

PANLY, D., 1989, *Faheries Resorce* Maaagement *in Southeast Asia,* KCLARM, Manila, Fhilipins.

POMEROY, R.8, (991. Small-scale *Fheres Management and Development.* **Marine** Palicy.

MACKY, KENNETH, 1993. *Sustainabke Management of Fisheries Resores: Cmmas Property Issues.* btwcafixaak ievkpmust Rs ah **Cwt.** Csava, N K33 3Hg Curs#a.

HINGG3, T.G, and RIVERA. 181, *Aquarium Fish frdustry in th Philippines: To»works 2ewops* ar *astrckn?* KC3ARM, Maida, Flippin.

WHITE, A,, 1989, 'Two *Cazaity-Based Marine* Reserves: Lessons *for Coastal Mn»gee .* CZ.ARM, Manila, PhPipninas.