

coastal law enforcement

Chapter 6

During the Bohol Environment Summit held in 1997, the key issue in Bohol's coastal resources sector was the lack of effective coastal law enforcement. Time and time again, the problems of coastal law enforcement resurface all around Bohol. This has led to a cat-and-mouse game between law enforcers and illegal fishers, with the latter just moving around the province and the law enforcers not quite able to catch up with them. This situation can be attributed to non-coordination of all concerned parties and lack of an integrated approach to resolve coastal law enforcement. Meanwhile, law enforcement also needs to be strengthened by all municipal LGUs.

The main agency concerned with the management of law enforcement activities within municipal waters is the municipal LGU. There are other agencies or involved entities in law enforcement such as the PCG, BFAR, DENR, PNP, and PNP-Maritime Group and fish wardens. The LGU, however, has to take the lead in coordinating and collaborating with these groups, with the local PNP as lead law enforcement agency.

Illegal fishing has had an enormous negative impact on Bohol's coastal environments. It can be cited as the main reason for the reduction in fish catch, and the destruction of coral reefs, seagrasses and other habitats. The introduction of dynamite during the Second World War marked the beginning of illegal fishing. Since then, new and "more innovative" fishing gears have been introduced, which are just as destructive to the various habitats as the fish stock.

EFFECTS AND IMPACTS OF ILLEGAL FISHING

- Destruction of huge areas of coral reefs, seagrass beds and mangrove forests (illegal cutting).
- Loss of income of the 80,000 small scale fisherfolk of Bohol.
- Loss of coastal habitats, which are the feeding and spawning grounds of fishes, causing further stress to the ecosystem and making it more susceptible to other external threats (e.g. sedimentation).
- Serious health problems experienced by those practicing hookah diving, using dynamite, cyanide, etc. (diving mortalities, poisoning, paralysis, dismemberment).

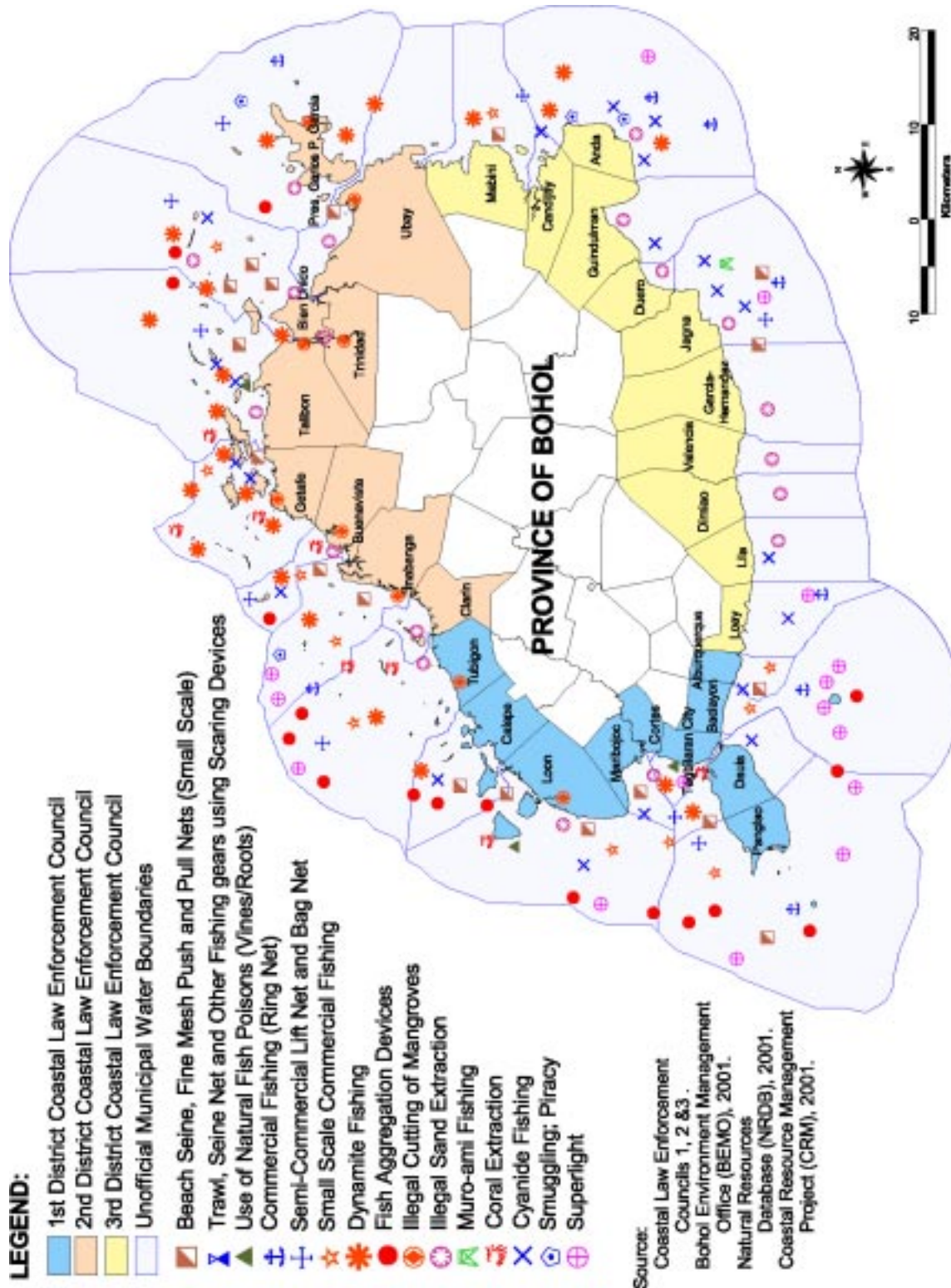


Figure 6.1. Map of illegal fishing used in Bohol

- Loss of food security for Boholanos and poverty of communities.
- Increased fish prices and reduced availability of marine products, and near extinction or disappearance of certain marine organisms and fishes.
- Increased use of illegal fishing gears due to lack of enforcement.
- Increased income (though temporary) for only very few individuals (e.g. illegal fishing financiers) and very little income for people who are directly involved in illegal fishing (some are children aged 10-15 years).
- Gambling, drug abuse, and other illegal activities due to “instant wealth”.
- Increased smuggling of guns and illegal commodities in association with illegal fishing activities

Illegal fishing activities follow a vicious cycle where illegal intrusion of commercial fishing into municipal waters depletes fish stocks that could otherwise have been caught by municipal fishers. Municipal fishers in turn resort to illegal fishing, such as dynamite and use of fine mesh nets, to catch what’s left behind by the commercial fishers. Without effective and consistent coastal law enforcement, typically law-abiding citizens are drawn into the illegal cycle, because of the need to catch food.

Most fish species have a juvenile stage and are unable to reproduce until they have reached a certain age and/or size. Fishes have a variety of reproductive strategies. Some are multiple spawners, producing eggs monthly starting from a quite young age at certain times of the year (e.g. rabbitfishes, locally known as ‘danggit’). Others spawn only once a year, are quite large, and form spawning aggregations (e.g. groupers), however, they are slow growing and can spawn only when quite old, up to ten years old.

With most fishes (relatively more than 60%) being displayed and sold in the markets of Bohol still at their juvenile stage (1-2 years as opposed to a life span of 4-6 years needed for reproduction to take place), it is not surprising that fish stocks in Bohol have decreased considerably in recent years. Reproductive capacity (fecundity) is also related to fish size, with the bigger fishes producing more eggs than small fishes. A 12.2-kg red snapper, for example, can produce 240 times more eggs than a 1.2-kg one (Bohnsack, 1990). Fishes in Bohol are a lot smaller nowadays than before, which in turn means they can only produce a lot smaller number of eggs.

Most of the aforementioned changes can be attributed to the increase in fishing effort through the use of new and more innovative fishing gears and the introduction of illegal fishing activities.

To give a clear picture of how serious the illegal fishing problems in Bohol is, the Provincial Government, in coordination with the Department of Interior and Local Government (DILG), conducted a survey on illegal fishing through a series of *barangay* consultations in April 2000.

Following are the consolidated results from the 182 questionnaires distributed to the coastal *barangays* covering 21 out of the 30 coastal LGUs.

Box 6.1. Percentage of *barangays* using outlawed fishing gears and doing illegal fishing-related activities in 21 coastal LGUs of Bohol

Outlawed fishing gear/activity	% of <i>barangays</i> which responded yes
Use of naturally occurring chemicals, such as root vines, etc.	50%
Manually pulled fine-mesh nets	50%
Fine-mesh nets pulled by motorized boats	44%
Trawls	40%
Use of cyanide and pesticides	48%
Use of dynamite	55%
Entry of commercial fishing boats into municipal waters	43%
Shiners or superlights	36%
Use of scaring device, throwing of rocks, and swimming to scare the fish into the net	43%
Gathering and breaking up of corals	7%
Illegal extraction of endangered marine faunal species (fishes, shells)	4%

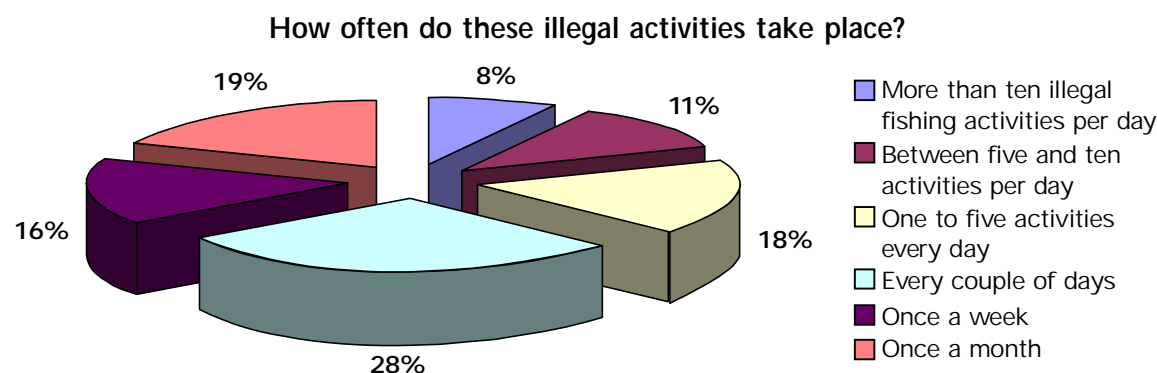


Figure 6.2. Occurrences of illegal fishing activities in 21 coastal LGUs of Bohol

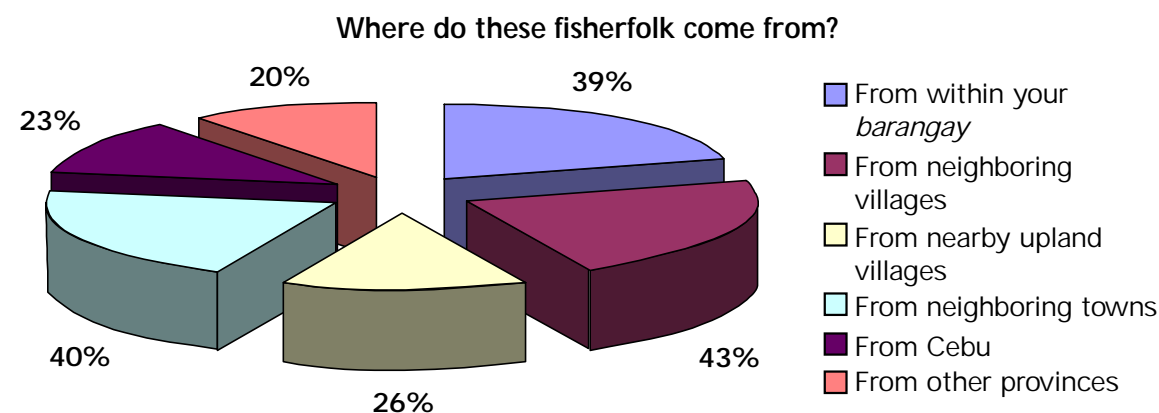


Figure 6.3. Origin of illegal fishers in Bohol

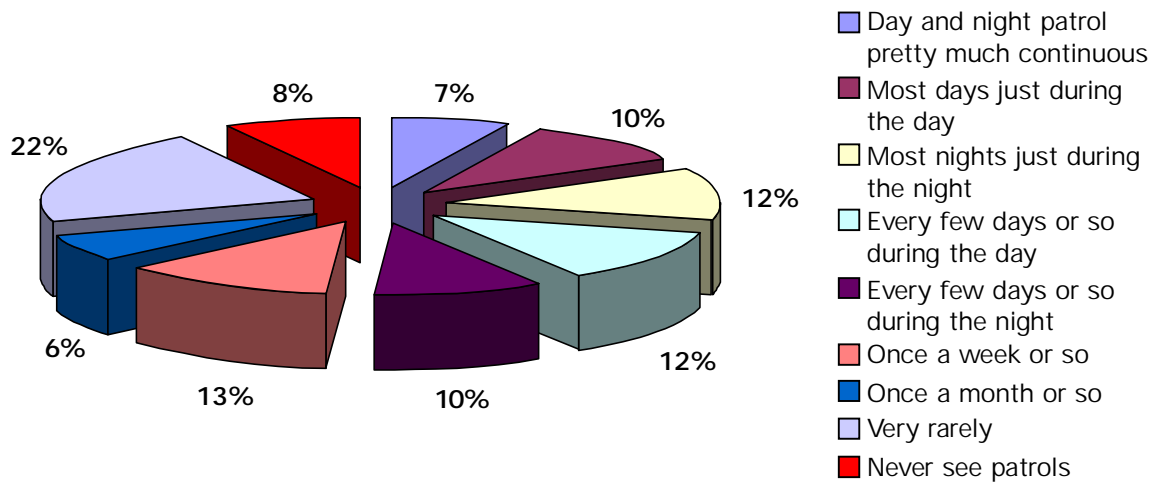


Figure 6.4. Occurrences of law enforcement activities in 21 coastal LGUs of Bohol

TYPES OF ILLEGAL FISHING and FISHING GEARS USED IN BOHOL

Confiscated fishing gears on display in Buenavista during the first "Saulog sa Dagat 2000" (Festival of the Sea), the Bohol celebration in support of the annual Month of the Ocean in May



The following sections describe some of the many types of illegal fishing gears and methods present in Bohol as well as their impacts on the coastal ecosystem.

Dynamite Fishing

Dynamite seems to be the oldest known and documented illegal fishing gear in the Philippines. It was introduced during the Second World War and was apparently used by the Japanese Imperial Army. Hand grenades and other explosives were thrown into the reefs to catch fish for food. After the war, the practice continued with the remaining explosives left behind. These explosives eventually ran out and were gradually replaced with the use of fertilizers and blasting caps. For the bombs, forms of nitrates are being used (i.e. calcium, sodium, potassium and ammonium). These are legally sold to farmers and seem to be freely accessible in the country. Mango growers and the mining industry can purchase these nitrates legally under the premise of use for their activities, however, large amounts are used in illegal trade for the manufacture of dynamite. One kilogram of ammonium nitrate can make 8 to 10 dynamite cocktails. Ammonium nitrate costs less than 40 pesos per kilogram (Guidote, undated).

To make the dynamite, the nitrates (in powder form) are mixed with gasoline or methyl alcohol and the mixture is then poured into a container that varies in size from a glass bottle to



Parts of a blasting cap and home-made explosive used in illegal fishing in the Philippines.

small, medium or even gallon drums. The bottle is then filled to the brim with fertilizer, covered with a blasting cap/ detonator and sealed with melted candle wax. Blasting caps may only be sold to licensed blast foremen of quarries, mines or construction companies. Despite the regulations and the fact that there are only eight licensed explosives manufacturers in the Philippines, blasting caps and nitrates proliferate in the market and are delivered to Bohol from Cebu.

Talisay City in Cebu Province is renowned for supplying cheap, safe (i.e. they don't often blow up early while in the hands of the fishers) and effective bombs. Its *barangays*, especially Tangke, have a thriving full-blown backyard industry based on this illegal trade. Barangay Tangke was named so because of some unused ammunitions and explosives left by the Japanese and US armies during the Second World War. The local residents of the *barangay* got to experiment with the explosives left in the area. Now, Talisay City is considered as the leading supplier of blasting caps and dynamite sticks all over the Philippines (Guidote, 2001).

About 10 pesos is spent to produce a bomb. Its materials and ingredients include an empty soda bottle, a small amount of gasoline, candle wax and blasting cap (bought at a price of 4-5 pesos). The bomb is then sold for up to 40 pesos and guarantees a minimum catch of 10-20 kg of fish. Not bad for a few minutes of work. Although an illegal trade, dynamite manufacturing has been considered as one of the main backyard industries of Talisay City. With the LGU's difficulty to provide alternatives, it has been hidden away for many years.

There are many areas associated with dynamite and cyanide use in the province's top ten hotspots (mostly islands), and have strong links with Cebu, more particularly with Talisay City. It also seems that most areas have a key supplier of dynamite and cyanide and that this is tied with the purchase of fish and regular delivery of the chemicals to the area from the suppliers in Cebu. The Cebu suppliers arrive in Bohol two to three times weekly. They ply their illegal trade by placing the dynamite and cyanide inside sacks of rice and animal feed. The sacks are provided with double compartments for the blasting caps and the nitrates. Even the boats have secret compartments carved into the hull to hide the deadly trade. The suppliers sometimes sell their products through *barangay* officials, and return to Cebu loaded with fish and the fruits of their trade, which they in turn sell to Cebu City.

Reams of blasting caps and their bottles shown here after an arrest in Cebu.



Dynamites come in a variety of sizes and shapes (e.g. small liquor bottles to liter-size beverage and lemonade bottles). They literally blow the reef apart, killing and maiming any organism within the radius of the large explosion. Some bombs are called sinkers. The addition of sand and rocks to the bottle make them heavier. Therefore, they sink deeper into the water column before exploding. Others are called floaters and are used especially for catching anchovies and small shoaling fishes near water surface.

Dynamite fishing is also synonymous with the use of compressors that enable the fishers to dive deeper to collect the fish. The dynamiters take their pick of the wounded fishes from the broken coral fragments. Many other fishes and organisms are affected by the shock wave, which is transmitted through the water column (water is a very good conductor of energy). Once a fish's bladder receives a shock, it tends to rupture and the fish is no longer able to keep its balance in the water, remains paralyzed, and slowly sinks to the bottom of the sea where they die slowly if not picked up by the divers.

Scared by the dynamite users, who have been known to pick up their dynamite bombs and throw them at local law enforcers, the local fisherfolk just watch in despair as the dynamites continue to explode in the seas. Once the dynamite fishers leave, the local fisherfolk get whatever is left as there always are "leftovers" from this type of fishing. Meanwhile, it will take some 50-100 years for the destroyed reefs to recover, if it is ever able to colonize again, thus becoming albeit ecologically and economically useless for all who fish and glean in the area.

Fish caught by dynamite are easy to recognize by their fractured body parts, red eyes due to ruptured capillaries, and ruptured and bloodied intestines and gills. Internal anatomical manifestations include ruptured air bladder and blood vessels and broken vertebral column. Any market vendor knows that a fish has been caught by dynamite. Certain species are commonly associated with dynamite fishing, e.g. rabbitfishes, striped mackerels ('alumahan'), fusiliers ('dalagang bukid'), anchovies and related species.

Dynamite fishing is a noisy activity and poses great hazard to anybody directly and indirectly involved in it. The identified illegal fishing hotspots in Bohol, which are mostly island communities are characterized by human-induced mortalities and disabilities. Most, if not all, of these hotspots have armless, legless — generally termed by the local residents as 'pungkol' — and/or blind residents. Dynamite users are hard to catch though because they can easily throw away their paraphernalia, head to shore and run into the village to hide. The law states that anyone will be

penalized if he is caught in actual possession of dynamite with other paraphernalia, or in the act of throwing dynamite into the sea. On the whole, the incidence of dynamite fishing is declining in the province but, in most cases, it is merely being replaced with more toxic and deadly cyanide.



There are eleven dynamite and cyanide fishing hotspots identified, in no particular order, in the Province of Bohol. These include the following:

1. Tintinan Island, Ubay (possibly the worst area in Bohol)
2. Mantatao Island and Barangay Talisay, Calape
3. President Carlos P. Garcia Island, especially Barangay Balod
4. Cabul-an Island, Buenavista
5. Barangay Doljo, Panglao Island
6. Cuaming and Hambongan Islands, Inabanga
7. Calituban, Noknokon and Guindacpan Islands, Talibon
8. Nasingin, Pandanon and Banacon Islands, Getafe

9. Bilangbilangan and Hingutanan Islands, Bien Unido
10. Bagong-banwa and Mocaboc Islands, Tubigon
11. Barangay Cogtong, Candijay

Cyanide Fishing

The secret trade of sodium cyanide, locally termed 'kuskos' or 'hilo', is almost impossible to trace. This deadly substance is a broad-spectrum poison (literally a nerve poison) used in the mining, electroplating and agriculture industries. Its use began in the Philippines in the late 1950s when the country began to explore the market for aquarium fishes. Spurred initially by the huge demand for aquarium fishes in the world market in the 1970s and onwards, its use has been encouraged by the huge demand for live food fish such as groupers and bumphead wrasses especially for the local, Hong Kong and Singapore markets.

Cyanide seems to be the number one replacement for dynamite but figures on its use in Bohol could not be established. In contrast to dynamite, cyanide produces no noise and can easily be dumped and thrown away if patrollers and law enforcers come close.

The effects of cyanide end up in a deadly food chain, especially for humans who are the highest form of consumers in the food chain. Cyanide builds up in the tissues of fishes and will not degrade. When ingested, the chemical is stored in the fatty and nerve centers of the human body and once it reaches a certain level, the person may die. Cyanide can also kill corals and other marine organisms that get in contact with it. Several studies show that sometimes corals can recover, but once subjected to second dose of cyanide, they will die. Once the corals die, they need to be biologically eroded and broken up. This takes at least 30-40 years depending on the species of coral and other features of the area.

Some estimates calculate that hundreds of thousands of kilograms of cyanide are sprayed on the reefs around the Philippines. There is only one cyanide test lab in BFAR-Region 7 (Cebu City), to which suspected samples can be sent for analysis. The laboratory technique used, however, is expensive and does not consistently produce accurate results, as the results depend on how the cyanide was used in the first place.

Cyanide is oftentimes used by those who use spear guns or gather aquarium fishes. It is squirted into holes and crevices to stun expensive fishes which are then collected by hand. If to be sold at the local market, the stunned fishes are speared ("double kill") to make them appear as though they were caught by spear gun.

The cyanide trade is very well protected and supplies emanate from Cebu Province, particularly Argao where there is one big supplier. With 40-50 pesos, enough chemical can be bought to last for about a week of fishing. A kilo of cyanide is retailed at about 250 pesos. This quantity is then sliced up and dealt very similarly to illegal drugs. The chemical can be mixed with

water inside baby feeding bottles or with fish bait. There is even a small store on one island in Bohol that openly sells cyanide and dynamite “over the counter”.

Cyanide fishing is lucrative as it targets the more expensive fishes. A kilogram of live grouper can fetch up to 600-800 pesos for rarer species, while each aquarium fish is sold at an average of 10 pesos up to 50 pesos. With this, many fishers are encouraged to turn to cyanide fishing to eke out a living. In a country where the fishermen are among the poorest, the “jackpot” they get from cyanide fishing is enough to make them unsympathetic to such “abstract concepts” as sustainable fishery and environmental protection and conservation (Pratt, 1997). The cyanide fishing hotspots of Bohol are strongly correlated with dynamite fishing.

Other chemicals, some as destructive as those commonly used in illegal fishing in Bohol, include Nyhindrin (a pesticide used in ricefields), and poisonous plant extracts like ‘lagtang’ and ‘tubli’ which are also used as pesticides for crops. Eating fish caught using these toxic chemicals poses extreme danger to human health as well as to corals and other marine animals.

Fine-Mesh Net



The by-catch from one pull of a small beach seine shows the amount of disturbance to and destruction of marine habitats and organisms (San Isidro, Talibon, Bohol).

Fine-mesh nets, such as beach seine or ‘baling’, double net (two layers of nets that result in a fine-mesh net), tri-ply (three layers of nets that result in an extra fine-mesh net), small beach seine or ‘sahid’, and other net types, are also destructive and illegal as defined by law.

These nets are commonly used in all coastal municipalities of Bohol, coupled with ‘muro-ami’ type of fishing methods that involve the use of scaring devices, throwing of stones and rocks, and striking the water surface with oars or large sticks to scare the fish into the net. These nets are dragged to scrape the seabed. In so doing, they pull up or break the corals, sponges, seagrasses and other habitats of fishes and catch other marine organisms including juvenile fishes.

The fisherfolk claim that fine-mesh nets are only used to support their daily dietary needs. They, however, catch juvenile fish and destroy their habitat, thus, in the long term, leaving less and less fish to catch. Juveniles of other marine organisms like crabs, squid and other mollusks are also caught. This deters spawning and the production of more and bigger fish.

'Kurantay', a type of fine-mesh net, has been modified and made a lot larger to resemble the 'liba-liba' (large seine net with scaring device). The smaller version of 'liba-liba' is called the 'hulbot-hulbot' while the larger one, which is mechanized and of commercial size, is called 'de-siper' and 'de-ring'. These modified fishing gears destroy the bottom substrates and scare fishes into the huge nets that can cost up to 50,000 pesos each. They are commonly used in the northern and eastern parts of Bohol, from Getafe to Candijay, and in the deeper seas of Loon and Tubigon. Commercial fishers from Cebu, some from Bogog, also move around Bohol with this type of net to catch fish. The community does not complain much because these fishers also buy fish from the local sellers.

Like all the other fishing gears discussed earlier, fine-mesh nets are illegal. The Fisheries Code of 1998 defines them as "active" fishing gears (also laid down in FAO 201).

Baby Trawl

Illegal fishing gears piled outside the municipal hall of Talibon, after a strong law enforcement drive of the LGU under then Mayor Juanario Item.



Locally known as 'palakaya', the baby trawl was introduced in Bohol by BFAR in the 1970s to increase the fish catch of small fishers. Since then, it has evolved into an even larger version which is known in Ubay as the 'lupad-lupad'. Baby trawls literally plow through the bottom substrate.

Fishers who use baby trawls are noticeable through the two plywood boards positioned at the rear of the boat. These otter boards drag the trawl in a straight line. Fishing boats with baby trawls are hard to catch as they are equipped with at least 16-hp engines. Once they see a patrol boat coming, the illegal fishers just cut their nets and flee. The boats can easily attain speed of up to 20 knots.

Baby trawls can be recognized through their noisy engines and constant movement at night. They catch shrimp, crabs and high-valued fishes. They tend to move everywhere and anywhere. The marine sanctuary in Macaas, Tubigon was not spared. They destroyed the buoys, signboards and other paraphernalia as they "plowed through" the sanctuary. Several families involved in baby trawl fishing are based in Tinangnan, Tubigon and Jao Island, Talibon. Due to increased law enforcement efforts in some areas of Bohol, most have moved to other towns where the fishing ground is large and coastal law enforcement is weak.

Commercial Fishing

Commercial fishing is banned from the shoreline and offshore islands of Bohol out to 15 km of the coastal waters. Only small- and medium-scale commercial fishing vessels with 3-150 gross tons may enter the 10.1-km to 15-km allowable area within the municipal waters provided that the LGU has delineated the municipal waters and the FARMC and the LGU passed an ordinance to this effect. At present, no LGU in the entire province has finalized the delineation of its municipal waters.

With the majority of fishes on municipal waters caught by about 1,000 commercial fishing operators in Bohol, the fish catch of about 80,000 subsistence fishers has been greatly affected. This means that only a few individuals, particularly the well-connected and influential are benefiting and making profit from Bohol's fisheries. The small subsistence fishers are left with literally nothing in their nets, and just 'asin' (salt) for their food.

Purse seiners from Negros and Cebu were the main problem during the early 1990's in Bohol, but as time has gone, these have been replaced by the local ring netters.

Ring Net

The main type of fishing gear used by commercial fishers in Bohol is the ring net, locally called 'likom'. Ring nets harvest from 50 to 100 'banyera' (one 'banyera' is equivalent to 40 kg of fish) per haul. They usually to haul fish two to three times per night depending on the time of the year. The boats are well equipped with fish finders, sonars, power blocks, radios, cell phones and Geographic Positioning System (GPS), and are thus aware of whether or not they are fishing within permitted areas. The ring net operators, mostly coming from Siquijor, Camiguin and Negros, have moved to Bohol apparently because of the abundant fisheries and made huge amounts of money at the expense of Bohol's small-scale fishers. They also seem to have lawyers and some media personalities their payroll who readily look for loopholes in law enforcement to secure their clients' income. It is interesting to note that legal offices have sprouted near the causeway in Tagbilaran City where abodes of big-time fishers are also located.

Commercial fishing has literally decimated Bohol's small and large pelagic fish species. It is common to see four to five big boats harvesting within 2-3 km from the shoreline almost every night in most southern towns of Bohol. With the advent of fish finders and sonars, the boats can even go 'scanning' on moonlit nights and catch fishes, something that was impossible to do in the past because fishes tend to scatter during moonlit nights. The complete range of communication facilities enables the commercial fishers to detect the presence of patrol boats. They even have a string of informants around Bohol to keep them aware of any patrol operation or provide inside information relating to the activities of the law enforcers. They provide these cohorts free radio equipment and accessories and get regular updates of where patrols are taking place. There is even one commercial fishing "dispatcher boat" which follows the CLEC-1 boat every time it patrols.

Small-scale commercial fishers continue to encroach the municipal waters to the detriment of the small fisherfolk, here shown Barangay Napo, Loon.



There was even one case of a small fisherman who was shot by a commercial fisher because he refused to remove his net and allow the commercial boat to harvest a group or 'apong' of fish. The small fisher had all the rights over the resources, but he was bullied and shot for refusing to succumb to an encroacher (pers. comm. Natalio Lajera).

It is therefore very necessary that the law enforcers must be better equipped and prepared if they are going to win the war against illegal fishers. Commercial fishing is apparently used as a front by some fish dispatchers and unscrupulous owners in the trafficking of illegal drugs. Meanwhile, the smaller fishing boats that use ring nets on municipal waters (most of which are dubiously registered as weighing below three gross tons) are also illegal. The net is also as an active fishing gear, thus not allowed on municipal waters as per Fisheries Administrative Order (FAO) No. 201.

Light Boat



Commercial fishing boats equipped with "superlights" to attract fish well within the 15 km from the coast of Panglao (photo taken from Balicasag Island, Panglao)

Commercial fishers encourage the use of light boats or large boats with attached dynamo which carry huge lights (up to 2,500 kW) in a variety of colors. More recently, halogen lights are submerged in order to attract and catch more fish.

In Bohol, there are about 200 light boats with strong lights or "shiners" which are by law not allowed within municipal waters. These are mostly financed by private individuals, including some influential people.

Fish Aggregation Devices ('Payaw')

These payaws are a great attracting device for fish who are lured by the shade and slower currents. They are however a great temptation too for commercial fishers, here shown in Pamilacan Island, Baclayon.



Commercial fishers have also launched hundreds of illegal Fish Aggregating Devices (locally known as 'payaw'). This has encouraged many non-fishers to set up their own 'payaw' and purchase light boats. FADs are now becoming a nuisance to commercial vessels plying the Tagbilaran–Cebu route as they are anchored everywhere. Reportedly, the Philippine Coast Guard (PCG) hired divers to cut the 'payaw' which almost caused some accidents to boats navigating through the Maribojoc Bay (pers. comm. Lt. Lopez).

Like lightboats, 'payaws' have a variety of influential owners. Teachers, several politicians, municipal employees, even Cebuanos and Ilongos not even from Bohol own their FADs in Bohol waters.

It must be stressed that he who dropped a 'payaw', does not own part of the sea. By law, one should have permission from the LGU and pay a fee for the use of a FAD. In fact, there is a moratorium from the BFAR disallowing the use of FADs and artificial reefs on municipal waters because of their detrimental effects on fisheries. There are more or less 1,000 'payaw' installed within the waters of Bohol, with majority of them found in Buenavista, Inabanga, Tubigon, Loon, Maribojoc, Dauis, Panglao and Baclayon.

Once a light boat or 'payaw' has aggregated fish, the message is passed on through handheld radio, and more recently through the highly popular text messaging via cell phones. Lights are flashed on and off at sea to attract the attention of other commercial fishing boats. The latter immediately come close to "scan" the area and estimate the size of fish, how deep the net should be set, and whether there is enough fish to make a harvest worthwhile. Dispatchers of different commercial fishing boats also roam around at night trying to find good fish aggregations. Once the fish is hauled in, the owner of the 'payaw' or the light boat then gets one-third share of the catch after expenses have been taken away. This amounts to 20-30,000 pesos for one night's work.

Meanwhile, local hook-and-line fishers just watch in despair and if lucky they are given a handful of fish as the boats leave. Local fishers have been known to cut nets in the water because of their anger over losing all the fish to the net of a commercial fisher.

The fishing boats also catch large numbers of dolphins, whales and, more recently, whale sharks. In Baclayon in late 1999, over 70 dolphins were caught in a ring net. Most of them drowned while a few were taken home for their intestines, a good ingredient for 'dugo-dugo' (cooked intestines with blood of the marine animal), a local delicacy. Whale sharks are still occasionally caught and secretly sold through the southern ports of Bohol and delivered to Cebu. Cagayan de Oro in Mindanao is also a port of call for these whale sharks.

The fisherfolk of southern and western Bohol are tired of waging a silent war against commercial fishing. In March of 2001, some 200 small-scale fishers marched from the CPG Avenue to the PNP Maritime Group Sub-station at the K of C Drive in Tagbilaran City. Their tempers flaring, they voiced out that they have been stripped of their livelihood and are left with nothing to catch. Some commercial fishing operators even hire underaged boat helpers. These fish workers rarely receive any benefits (e.g. SSS) and most do not even have a legal fish worker's license from their 'amo' (boat owner or "boss"). Some of the boats also carry inadequate safety equipment such as life vests. In 2001, there was even one commercial fisher from Loon who was lost at sea, his disappearance discovered only when the boat docked in Loon, and his body was never recovered.

Fishes caught within the waters of Bohol do not always get landed in Bohol since most are traded to dispatchers at sea who ship the catch to other provinces, like Cebu and Negros. Meanwhile, the limited supply of fish to Bohol has resulted in high price, and the consumers can do nothing but pay high to taste their own fish. Meanwhile, Cebu and other provinces buy fish from Bohol at a price lower than its price when sold in Bohol. One person in Loon who lives in Cebu, buys fish in the latter and brings it over to Bohol on a weekly basis because it is 20 pesos cheaper in the city. When the local politicians asked the fish sellers where the cheap fish come from, the latter said that it is from Bohol (pers. comm. Atty. Barbarona).

FADs normally aggregate spawning ('bidhan') or fecund fishes, or those at their spawning run. What could grow into large sizes are caught before they are able to spawn. The unscrupulous fishers have in their minds the volume of fish they could harvest regardless of size and season. They catch juveniles which have not and never will be able to spawn, thereby, depleting fish stocks and drastically affecting food security. Certain species have begun to disappear. The once strong stocks of 'tulingan' (tuna), which were seen yearly in Bohol from March to June, are now rarely seen.

Regular harvests of shoaling individuals are also being done especially in the months of March to May. Aggravating the situation, during August-September when these fishes have spawned their young, they are caught and sold in huge volumes. Catching these juveniles or 'pirit-pirit' means that fewer adults will return and spawn a new generation. It is obvious that commercial fishing operators just want to catch anything and everything as long as it is in volume.

The fisheries condition in Bohol is very serious, fishes continue to disappear (such as tunas in recent years), fish prices will continue to increase, and Bohol will no longer be able to

supply fish as the main source of animal protein. It is also essential that big-time fishers should be the first to be apprehended by the law enforcers, as they are the main illegal fishing problem in Bohol far ahead of the damage done by other illegal fishers. With their exit, the small fishers will be able to stop their small-scale illegal fishing activities and return to catching enough fish legally to live off. There are about 80,000 small fishers in Bohol, and they get only a very small share of the fish stock. In contrast, commercial fishers, who comprise less than 1% of the total fishers in the province, get most of the fishery resource and revenues.

On the other hand, the commercial fishers claim that their collapse would cause fish prices to increase and would threaten fish supply. This is not true at all, because all they have to do is move out of the municipal waters into the deep sea areas off Bohol and stop competing with the small fishers. Fish supply will increase if the fish stocks are allowed to recover. By putting a stop to commercial fishers' monopoly on fish sales, the small fishers will become the main suppliers of the local markets in Bohol. Fish price will eventually drop and the small fishers will have a much more secured income, thereby, ensuring a better and more sustainable fish supply in the long run. Bohol will also be able to have a greater access to its fishery resources, and the supply of fish to Cebu and Negros will decrease.

Within the waters of Bohol, there are a number of identified areas where illegal commercial fishing still exists, to wit:

1. Tagbilaran City
2. Dausi
3. Panglao
4. Baclayon
5. Loay
6. Mabini
7. Maribojoc
8. Loon
9. Tubigon
10. Clarin
11. Inabanga
12. Pres. Carlos P. Garcia (formerly Pitogo)
13. Buenavista
14. Getafe
15. Ubay

COASTAL LAW ENFORCEMENT SITUATION IN BOHOL

The Local Government Code of 1991 mandates that the municipal LGU is the main agency tasked with the management of the municipal waters. This responsibility is reinforced by the Fisheries Code of 1998.

Some LGUs have had astonishing impacts on illegal fishing within Bohol. The consistent law enforcers of the province have contributed to the decrease in the frequency of illegal fishing



Participants of the Trainers' Training on Boarding Procedures conducting patrolling and inspection of one of the commercial fishing vessels in Tagbilaran City with the BEMO, PCG, CRMP, PNP-Maritime Group, PNP Provincial Command and CLEAR7 staff.

in some areas, although a few have managed to raise people's awareness of the real economic benefits that a municipality can have with heightened law enforcement. Put simply, better coastal law enforcement can ensure more fishes, thus, more socio-economic revenues for the municipality and all its stakeholders, as well as sustainable fish supply in the local market.

Strict imposition of penalties, through fines, can cover the costs of law enforcement. Active coastal law enforcement also ensures that other illegal activities (e.g. illegal trade in lumber, drug trafficking, gambling, etc.) get caught red-handed, and navigation of seaborne vessels made safer. The experiences of those directly involved in coastal law enforcement prove that this activity should get a very high priority.

Some politicians who have fully understood the importance of strict coastal law enforcement in municipalities have won the hearts of the people, especially the ordinary fisherfolk. The LGU of Inabanga, a northern municipality, is an excellent example of how a local chief executive, serious on implementing coastal law enforcement, waged a serious campaign against illegal fishing and greatly minimized it during her terms as local chief executive. Mayor Josephine Socorro Jumamoy is one of the first local executive in Bohol to take a stand on law enforcement. It was not a very easy job for her at the start, but Mayor Jumamoy took the risk of losing the trust of her townspeople. Fortunately, many of her constituents were happy that the LGU, legislators and law enforcers dared the illegal fishers to stop their unscrupulous activities. Other LGUs worthy of mention are Tubigon, Calape, Clarin, Talibon and Candijay whose chief executives are making sure that their coastal law enforcement programs are very consistent and well implemented.

Relative to its mandate as regards the management of the municipal waters, the LGU, through its *Sangguniang Bayan*, is responsible for drafting and passing adequate policies and ordinances. The PNP and the PCG are two national agencies that are mandated to enforce coastal, including fishery, laws in coordination with the concerned coastal MLGUs and other deputized law enforcers.

The *barangay* has no legal jurisdiction over the municipal waters but it can formulate laws, either through resolution or ordinance for the SB to consider, in relation to some activities they want to undertake in coordination with the Municipal FARMC. The *barangay*, however, has jurisdiction over activities that affect the coastal waters within the *barangay*, e.g. solid waste management (see Chapter 4).

Although there is no such thing as provincial waters, the Provincial Government of Bohol plays a big role in facilitating and catalyzing province-wide initiatives in relation to coastal law enforcement. In this regard, it has taken the lead through its pro-development stand.

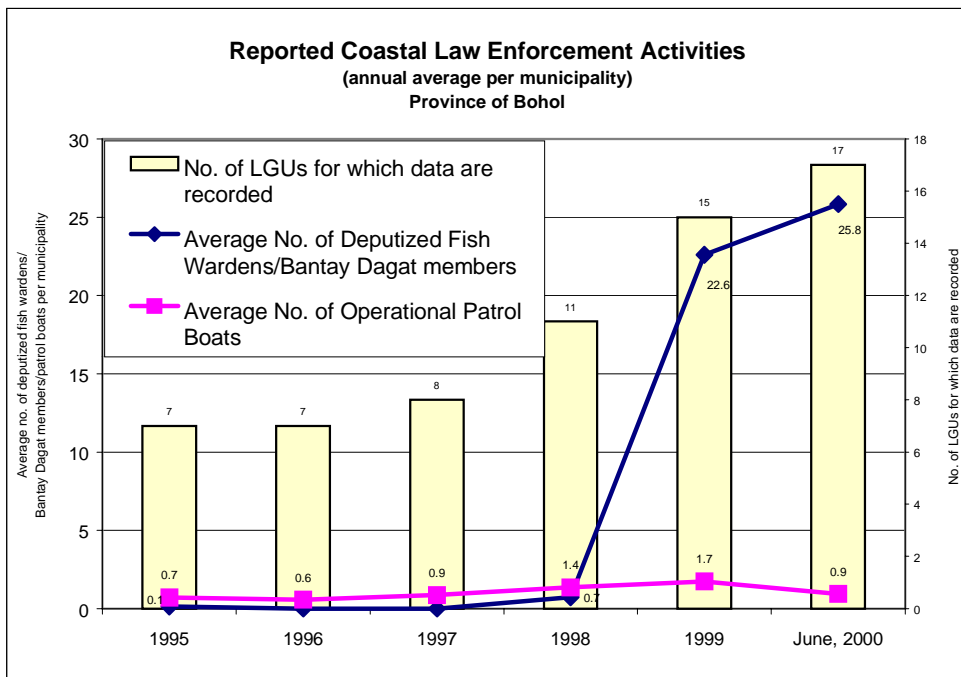


Figure 6.5. Graph showing reported coastal law enforcement activities in Bohol

Bohol Coastal Law Enforcement Summit

Inspired by the success of the Bohol Environment Summit held in 1997, the Provincial Government decided to mount a follow-up activity to focus on local coastal law enforcement issues.

For years, coastal law enforcement in Bohol has been like a cat-and-mouse game wherein illegal fishers evade the coastal law enforcers by transferring from one town to another. Triggered by a suggestion from then Vice Governor Edgardo Chatto, the BEMO facilitated the holding of the Bohol Coastal Law Enforcement Summit in May to June 2000. The activity was supported by the Office of the Provincial Governor, DENR-CRMP, and BCRMTF.

The gathering of all fishery stakeholders in the province served to highlight the celebration of May as Month of the Ocean. The ten-day summit centered on the problem of coastal law

Culmination of the Bohol Coastal Law Enforcement Summit (June 2000), highlighted by the signing of the MOUs on the creation of the Coastal Law Enforcement Council (CLEC) in the three congressional districts of the province.



enforcement in Bohol. Workshops were conducted and facilitated by the BCRMTF and participated in by the mayors and vice mayors of all coastal LGUs, chairpersons of SB/SP Committees on Fisheries and Environment, SB/SP secretaries, municipal/city fish wardens, FARMC heads, members of the judiciary, provincial prosecutors, and the private sector including commercial fishers and representatives of civil society.

The members of each sectoral group were asked to share their thoughts on the current reality on coastal law enforcement in Bohol and share their own experiences. A priority list of issues and activities on law enforcement was drawn up (see Box 6.2.). An action plan was then formulated upon which the Provincial Government could focus its resources. During the workshops, it was agreed that a multi-sectoral and inter-LGU approach to law enforcement is needed for Bohol. This should be supported with sufficient logistics (personnel and materials) and equipment to realize a concerted response towards an effective coastal law enforcement for Bohol.

Box 6.2. Outputs of the series of sectoral workshops held during the two-week-long Bohol Coastal Law Enforcement Summit 2000

EXECUTIVES OF PROVINCIAL GOVERNMENT AND NATIONAL LINE AGENCIES AND SANGGUNIANG PANLALAWIGAN	
Priority Issues	Strategic Directions
<ul style="list-style-type: none"> ▪ Absence of a provincial coordinating body for local coastal law enforcement ▪ Undelineated municipal waters ▪ Limited logistics and financial resources ▪ Lack of incentives for witnesses in the prosecution of violators ▪ Lack of alternative livelihood 	<ul style="list-style-type: none"> ▪ Create coastal law enforcement council in every district ▪ Delineate municipal waters ▪ Source/appropriate funds ▪ Conduct IEC

continued

Box 6.2 continued

RTC AND MTC JUDGES, PROSECUTORS, LAW ENFORCERS AND THE MEDIA	
Priority Issues	Strategic Directions
<ul style="list-style-type: none"> ▪ Lack of coordination among the five pillars of the justice system ▪ No financial support from some municipal LGUs ▪ Political intervention ▪ Unholy alliance between law enforcers and illegal fishers ▪ Undelineated municipal waters 	<ul style="list-style-type: none"> ▪ Institutionalize a network of line agencies ▪ Appropriate sufficient funds for coastal law enforcement ▪ Strictly implement the law ▪ Strengthen IEC on coastal law enforcement
NGOS AND ACADEME	
Priority Issues	Strategic Directions
<ul style="list-style-type: none"> ▪ Ordinances not harmonized nor standardized ▪ Lack of political will ▪ Lack of logistical support ▪ Lack of IEC ▪ Unholy alliance between some law enforcers and illegal fishers ▪ No municipal judge 	<ul style="list-style-type: none"> ▪ Standardize fishery ordinances ▪ Create and strengthen coastal law enforcement councils and task forces ▪ Provide support mechanism ▪ Conduct IEC, advocacy and networking ▪ Enhance existing management and judicial systems ▪ Conduct monitoring and evaluation
MUNICIPAL MAYORS, MPDCs, MAOs AND SB REPRESENTATIVES (1st, 2nd and 3rd Congressional Districts of Bohol)	
Priority Issues	Strategic Directions
<ul style="list-style-type: none"> ▪ Lack of logistics and financial support ▪ Lack of IEC ▪ Ordinances not harmonized nor standardized ▪ Undelineated municipal waters ▪ Illegal fishing still rampant 	<ul style="list-style-type: none"> ▪ Allocate budget for CRM ▪ Conduct information education and communication (IEC) ▪ Create District Coastal Law Enforcement Council ▪ Provide alternative livelihood ▪ Delineate municipal waters ▪ Sustain efforts in coastal law enforcement
VICE MAYORS AND SANGGUNIANG BAYAN SECRETARIES (1st, 2nd and 3rd Congressional Districts of Bohol)	
Priority Issues	Strategic Directions
<ul style="list-style-type: none"> ▪ Financial constraints ▪ Lack of political will ▪ Inter-LGU conflicts on ordinances ▪ Inactive fisherfolk ▪ Absence of coastal zoning, undelineated municipal waters 	<ul style="list-style-type: none"> ▪ Allocate budget for CRM ▪ Create coastal law enforcement board in every municipality ▪ Harmonize fishery laws and ordinances ▪ Solicit technical assistance from concerned agencies

continued

Box 6.2 continued

PO LEADERS AND MFARMC CHAIRMEN	
Priority Issues	Strategic Directions
<ul style="list-style-type: none"> ▪ Continued illegal fishing activities ▪ Lack of logistical support ▪ Lack of alternative livelihood ▪ Lack of political will ▪ Undelineated municipal waters ▪ No municipal judge 	<ul style="list-style-type: none"> ▪ Create and strengthen Coastal Law Enforcement Councils ▪ Provide/solicit financial support ▪ Conduct IEC ▪ Conduct monitoring and evaluation ▪ Conduct advocacy and networking activities ▪ Lobby for the assignment of municipal judges
PHILIPPINE NATIONAL POLICE, BANTAY DAGAT AND FISH WARDENS	
Priority Issues	Strategic Directions
<ul style="list-style-type: none"> ▪ Lack of manpower and dedicated law enforcers to sustain a 24-hour operation ▪ Lack of facilities and equipment ▪ Alternative livelihood for illegal fishers not sufficient ▪ Continued illegal fishing operation 	<ul style="list-style-type: none"> ▪ Establish a composite seaborne patrol team ▪ Appropriate sufficient funds for coastal law enforcement ▪ Allocate funds for alternative livelihood projects ▪ Strictly implement fishery laws and ordinances ▪ Strengthen IEC activities
BUSINESS SECTOR: FISH VENDORS AND COMMERCIAL FISHERS	
Priority Issues	Strategic Directions
<ul style="list-style-type: none"> ▪ Intrusion of commercial fishers from other provinces ▪ Regulations limiting the use of marine resources ▪ No regular monitoring of public markets for fish caught by dynamite fishers ▪ Undelineated municipal waters 	<ul style="list-style-type: none"> ▪ Strengthen coastal law enforcement ▪ Improve licensing/permit system ▪ Strengthen Municipal FARMCs ▪ Conduct IEC

Congressional Coastal Law Enforcement Councils

Heads and representatives of local and provincial LGUs and national agencies witness the signing of the MOU on the creation of Congressional Coastal Law Enforcement Councils (June 6, 2000).

On the last day of the Bohol Coastal Law Enforcement Summit, a Memorandum of Understanding was signed by and between heads of concerned agencies and the local chief executives of all coastal towns of Bohol. The MOU stresses Bohol's commitment to create a congressional coastal law enforcement council in each of the three districts. Each council will serve as the main planning and coordinating body for all activities related to coastal law enforcement within the district and will be fully represented by all coastal M/CLGUs of each district.



The Roles of the Three CLECs

Laid out in the MOU are the roles and responsibilities of all agencies concerned with coastal law enforcement in the Province of Bohol. The MOU ensures that each agency will commit its resources and time for the coordinated undertaking. It also consolidates the mandates of the collaborating agencies in order to harmonize their roles in the Council.

Each of the three CLECs shall:

- identify a base of operations (i.e. office) for the district;
- organize a composite coastal law enforcement team including advisers;
- produce a district-wide coastal law enforcement communication and operations plan;
- procure budgetary allocations and logistics for district-wide activities;
- determine the share of each MCLGU from the fines resulting from the law enforcement activities of the council and/or explore other innovative methods of fund raising;
- acquire patrol boats through interagency/counterpart funds;
- coordinate with coastal LGUs that share common boundaries to ensure uniform policies and activities;
- provide the Provincial Government regular updates on the councils' activities;
- advise LGUs through their respective mayors and MCFARMCs on the suggested standardization of policies and proposed policy changes;
- prepare a training and capability-building program for its members; and
- convene in a general assembly each year to assess and evaluate accomplishments and plans, and explore areas for closer collaboration between districts.

Composition of the Three CLECS

Each CLEC is composed of all CRM partners present during the Summit and who were elected in October and November 2000. To date, the three councils are doing exceedingly well and are becoming the main coastal law enforcement leaders in the districts. The current chairmen of the three CLECs are Mayor Gabino Redulla (LGU-Maribojoc), Vice Mayor Apolonio Aparece (LGU-Buenavista) and Vice Mayor Felix Casingcasing (LGU-Duero) for the first, second and third districts, respectively.

The following shall compose each of the three CLECs of Bohol and will be duly elected in a forum of all LGUs of the district:

- One FARMC Chairman
- One fishwarden representative
- The Provincial Director of the PNP or his representative
- The Provincial Prosecutor or his representative
- One representative from the DENR
- One representative from the BFAR
- Representative of all the coastal Municipal Mayors and City Mayor
- Representative of all the coastal Municipal Vice Mayors and City Vice Mayor
- Representative from the *Sangguniang Bayan/Sangguniang Panlungsod*, preferably the Chairperson of the Committee on Fisheries and Agriculture

- Representative from the Philippine Coast Guard
- Representative from the PNP-703rd Maritime Group
- One representative from the civil society
- One representative from the Bohol Environment Management Office
- One representative from the *Sangguniang Panlalawigan* (SP)

The advisers of each CLEC include the:

- representative (congressman) of the district to the House of Representatives,
- Provincial Director of the DILG or his/her representative,
- representative from ELAC,
- representative from the Judiciary,
- representative from the Provincial Prosecutor's Office,
- representative from CRMP (coterminus with project),
- representative from PIA,
- representative from PIO and other media, and
- other representatives deemed necessary by the council.

The councils meet regularly. A one-year plan, which includes IEC, serves as a guide in their activities.



After their blessing and launching, the three CLEC patrol boats started off for environmental awareness campaign, dubbed as "Duaw Sangyaw", in identified illegal fishing hotspots of Bohol during the whole month of May 2001 to celebrate the Month of the Ocean.

To strengthen the operations of the CLECs and address the problem on lack of equipments, the Provincial Government purchased three patrol boats with complete equipment and allocated funds for maintenance and

operating costs. Each patrol boat is manned by one boat operator, one maintenance crew and the members of the composite law enforcement team of the district.

THE COASTAL LAW ENFORCEMENT ALLIANCE IN REGION 7 (CLEAR7) AND THE BOHOL COASTAL LAW ENFORCEMENT COUNCILS



Established through a Memorandum of Agreement signed in June 2000 by the DENR, DA-BFAR, DILG, PNP, PCG, NBI, ELAC, IMA, Philippine National Association of Fishwardens, LMP-Bohol Chapter and CRMP, CLEAR7 was developed to pilot and package an integrated coastal law enforcement strategy in the Central Visayas Region. Most CLEAR7 signatories are the regional offices-counterpart of the CLEC signatories.

Participants and instructors to the Coastal Law Enforcement Trainors' Training conducted by CLEAR7 for the CLECs.



At the onset, CLEAR7 through a support from the DENR-CRMP-USAID and the United States Coast Guard International Training Division (USCG-ITD) trained key enforcers from the provinces of Cebu and Bohol on the rudiments of Joint Boarding Exercises. Some of the trainees from Bohol consequently became members of the CLEAR7 pool of trainors that were mobilized to conduct a trainors training for the CLECs. The CLECs has now an independent pool of trainors coming from the PNP Bohol Provincial Office, 703rd PNP-Maritime Group, the Coast Guard Station in Bohol and ELAC.

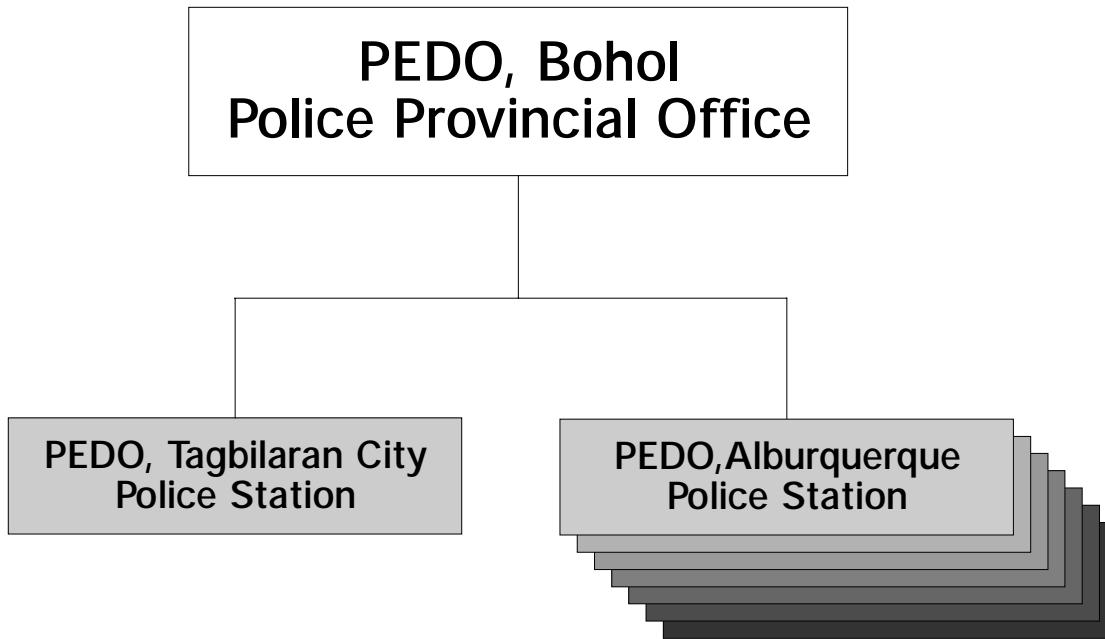
Another product of the CLEAR7-CLEC partnership is the initial drafting and eventual implementation of PNP Letter of Instruction 10 series of 2001 (LOI10/01) entitled "Perfect Environment" which provides for the creation of the Police Environment Desk. Although a project of the PNP Regional Office, CLEAR7 and Police officers coming from the CLECs participated actively in reviewing the draft of the LOI.

CLEAR7 being supported by the USAID through the DENR-CRMP and the CLEC through the BEMO-CRMP work closely in areas of training, planning and coordinating coastal law enforcement activities (Guidebook 8, page 135). Owing to the centralized character of law enforcement agencies, this tandem proves to be an ideal environment for a provincial coastal law enforcement activity to prosper.

The Police Environment Desks in Bohol

One of the most recent developments in the Central Visayas Region is the creation of the police environment desk in all police stations. In Bohol, all 48 police stations have been required to create such as desk and appoint their respective Police Environment Desk Officers or PEDO (Figure 6.7).

Police environment desk is the PNP Regional Office's response to the growing clamor for a more active and sustained police involvement in environmental protection. Current situation in environmental policing is characterized by fragmented approaches and problematic strategies as there are many agencies tasked to enforce the same laws resulting to none of them doing the job. Under the program, the PEDO is mandated to take on the lead role in environmental law enforcement especially in areas where the government agency, whether national or local, directly responsible is physically absent.



* PEDO's are preferably station's investigator or Police Community Relations Police Commissioned Officers/PNCOs

Figure 6.7. Communication flow/hierarchy of the PEDO in Bohol

It is a given fact that government agencies with environmental law enforcement functions have very limited reach to monitor, accept reports, and more importantly to act quickly on violations. The DA-BFAR and DENR monitoring, control and surveillance officers are virtually absent in remote localities of Bohol so much so that violations on fishery and forestry laws remain unabated.

Police stations are present in all localities of Bohol however most of their personnel are ill-equipped of the technical intricacies related to environmental law enforcement which are mostly governed under special laws that only lead agencies understand. But with proper information, training and logistical support from these agencies, the police can be their immediate extensions. The PEDO serves are the direct and accountable extension officer of such agencies as DENR, DA-BFAR and all other law enforcement agencies. It is hoped that full maturity of the Police Environment Desk will make every policeman capable of taking cognizance of environmental law the violations, assume jurisdiction quickly and dispose of the case more efficiently (Figure 6.8).

The Bohol Coastal Law Enforcement Councils and the PEDOs

Consistent with the creation of the Congressional District Coastal Law Enforcement Councils the PEDO of all police stations in coastal towns of Bohol automatically becomes the action officers to the CLECs.

The primary activity of PEDOs is the enforcement of coastal laws. This means that PEDOs are required to obtain all necessary information and skills relative to effective enforcement of

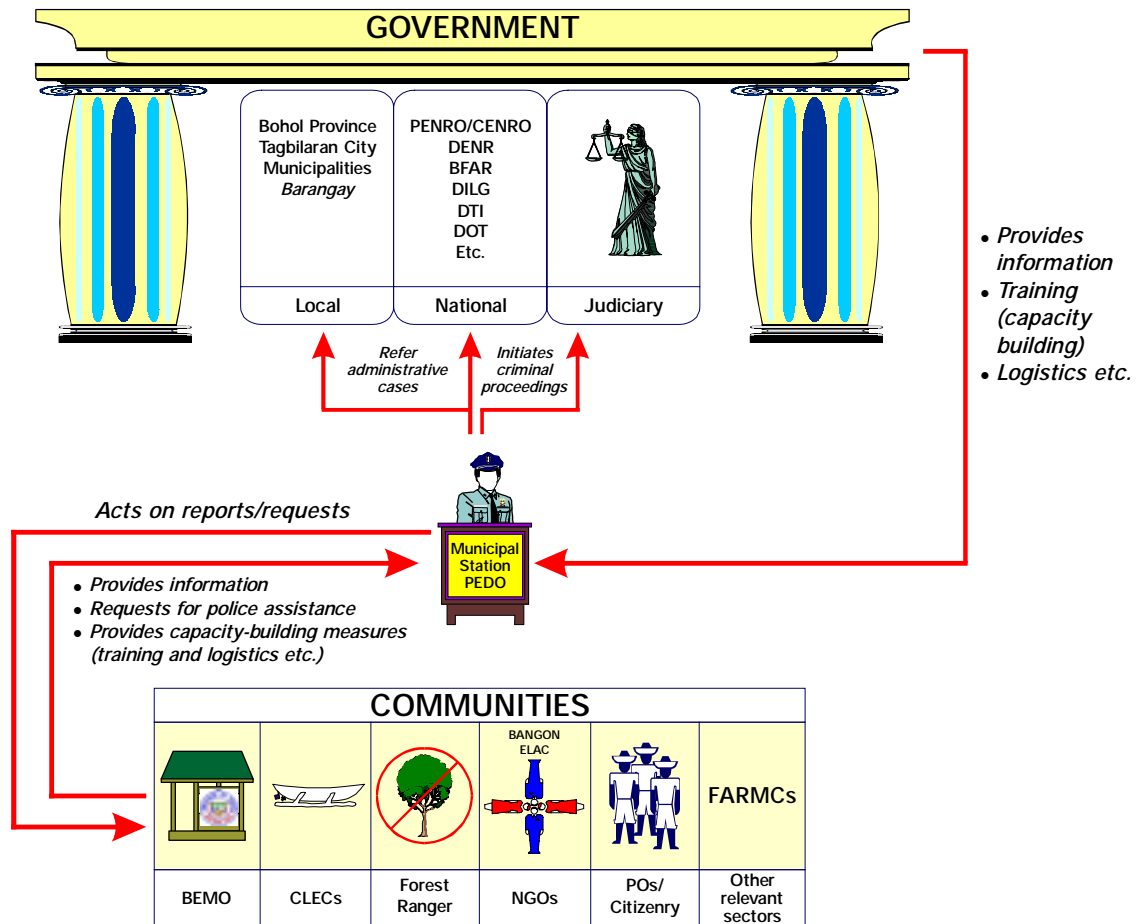


Figure 6.8. Flow of environmental law enforcement in the Police Environment Desk

maritime and fishery laws such as basic fish and gear examination, seaborne patrolling, proper boarding and search procedures, navigation and seamanship, evidence handling and case presentations.

Initially, the BEMO with the PNP Bohol Provincial Office sponsored a Boarding and Para-legal training for some of the PEDOs of Bohol in Tagbilaran City.

SUMMARY

Coastal law enforcement is definitely not a new concept. Although there exists a continuing battle against illegal fishers, Bohol is one of the very few provinces that have taken a bold step in its pursuit to sustain its fisheries sector. The Bohol Coastal Law Enforcement Summit succeeded in highlighting the fact that illegal fishing is a problem for everyone to face and resolve, and that a multi-sectoral, multi-strategy approach is needed to resolve it, with IEC and land-based and sea-based patrols.

