

# COMPETITION AND DISPUTE

## SETTLEMENT FOR

## FISHERY RESOURCES

### A CASE STUDY OF PROPERTY REGIMES IN SARANGANI BAY\*



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I was walking along the beach one morning when I saw some small-scale fishers pulling their net from the sea. There were about seven fishers on either end of the net pulling it in a 'U'-shaped position from the sea. Because I was in this municipality to learn more about small-scale fishers and their relationships with their resources, I decided to join and help (not much actually) them haul in the net. They, of course, got a good laugh out of the fact that I had to wrap my uncalloused hands with my shirt to avoid getting blisters from the rope. We struggled with the net for some time and finally pulled it to shore where the fish were collected and placed in large basins. The catch consisted of small fish, barely three to four inches in length, and one small octopus. The fishers, still amused at my sore hands and my awkward way of pulling in the net, offered to give me a few fish in return for my so-called labor.

I asked them if that was a typical catch. They said that it was typical for the past few years, although before, the fish were (more) plentiful and bigger. Probing further, I asked them what kind of net they were using and they said that

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\*This article is based primarily on a paper presented at the 4th International Association for the Study of Common Property Conference, June 15-19, 1993, Philippine Village Hotel, Manila, Philippines.

it was a *baleng* (beach seine). It was at that point that I realized that I had just assisted them in pulling in an illegal net. Its mesh size was so small that people often refer to these kinds of nets as 'mosquito' nets. And yet, this happened not in an isolated place along the coast. It took place a few hundred meters away from the Municipal Hall, the police station, the Coast Guard station, and even a judge's own home.

The processes that lead to incidents like this are the reasons why I came to study the area. Why is the catch becoming smaller and less abundant? How come fishers can use illegal fishing gears and methods and not be apprehended by the authorities? Do fishers have rights to fish, and if so, how do they obtain these rights? Who do fishers compete with to gain access to fish? On the surface, this appears to be the classic "Tragedy of the Commons" introduced by Garret Hardin (1968) where anyone can fish in nearshore areas, but no one can prevent others from fishing.<sup>1</sup> This is referred to as an open access situation in which the fishery resources are available on a first-come-first-served basis and no one has a right to exclude others from fishing. In the absence of clearly defined property rights, each fisher will maximize his/her own interests and capture as much resources as possible. Because all the other fishers are doing the same thing, the resources are depleted.

In Sarangani Bay, resources are managed and controlled by property regimes that are developed into certain forms of institutional arrangements which allocate fishing rights. Bromley and Cernia define a property regime as a:

... structure of rights and duties characterizing the relationship of individuals [with] one another with respect to [a] particular resource.<sup>2</sup>

These regimes form institutional arrangements that govern the use of the resources. Gibbs and Bromley (1986:1) define institutional arrangements as:

...the rules and conventions which societies establish to define people's relationship [with their] resources into claims, and claims into property rights, which influence strongly patterns of resource use.

Thus, property regimes define institutional arrangements that manage resources in a particular community or area. According to common property theory, there are four types of property regimes — open access, state, private, and common — each having its own institutional arrangement.

<sup>1</sup>Garret Hardin, "The Tragedy of the Commons," *Science* Vol. 162 (1968).

<sup>2</sup>Daniel W. Bromley and Micheal M. Cernia, "The Management of Common Property Natural Resources: Some Conceptual and Operational Fallacies," *World Bank Discussion Papers #57* (World Bank, Washington D.C., 1989), p. 5.

Open access regime is a situation where no one owns or controls the resources. The resources are open to anyone on a first-come-first-served basis. The Philippine state is the property regime that has legal control over these resources. In practice, however, this property regime is too weak to effectively exercise its control and award rights to access the resources, and limit others from extracting the same. Private property regimes are regimes where individuals or organizations own and manage a specific resource area.<sup>3</sup> This is similar to private land titles or leases from the government that allow them to access resources on government land. In the sea, licenses or leases to gain the right to fish are granted by the government because ocean resources belong to the State. Common property regimes are made up of social units with defined boundaries and membership. These units share common interests, cultural norms, and authoritative systems. The community manages the use of the resources based almost entirely on community rules and norms, regardless of who legally owns or leases the resources.<sup>4</sup>

If there are property regimes that manage access and control over fishery resources in Sarangani Bay, why then are the resources being depleted? The answers vary — from inappropriate property regimes, lack of enforcement, and intense competition for resources to unequal distribution of resources, etc.

This paper will argue that one of the reasons behind the depletion of the fishery resources is the uncertainty in the way disputes over resource use are settled. Because a great deal of uncertainty exists over who actually has the right to the resources and who can be excluded, fishers compete with one another following favorable institutional arrangements which justify their claims to the resources. This uncertainty leads to both resource depletion — because many fishers do not follow or accept the rules of other property regimes — and at the same time, the opening up of possibilities for fishers to change institutional arrangements. Each property regime competes with other property regimes in order to have their form of institutional arrangements recognized as the proper way to manage resources and allocate resource rights.

This paper will describe the property regimes that exist in the Sarangani Bay and the ways in which users of property regimes manipulate dispute settlement processes to exert their power and control over the fishery resources. The paper concludes with a brief discussion on how the results of this study might contribute to Third World studies regarding access and control over natural resources. Although this paper shows how difficult it is to categorize and make

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<sup>3</sup>*Ibid.*, pp. 11-15.

<sup>4</sup>Fikret Berkes and M. Taghi Farvar, "Introduction and Overview," in Fikret Berkes (ed.) *Common Property Resources: Ecology and Community-based Sustainable Development* (London: Belhaven Press, 1989), p. 11.

clear distinctions between the state, private, and common property regimes, these terms are still used as bases for comparison. The data for this study were collected over a period of one year using key informant interviews, focused group discussions, participant observation, and secondary data.<sup>5</sup>

## Setting

Sarangani bay is located in the southeastern part of Mindanao, the second largest island in the Philippine archipelago (Figure 1).<sup>6</sup> The bay's fishery resources are the source of livelihood of thousands of people living in the coastal area. This paper focuses on the fishery resources within the bay and those that are caught outside, but landed in the bay.

The political boundaries for the study include General Santos City, located in the northeast corner of the bay, and Sarangani Province, which borders the rest of the bay and the Celebes Sea. General Santos City is a chartered city of over 250,000 people and is not under the jurisdiction of the province. It is commonly referred to as a 'boom city' because of its rapid economic growth in the 1980s and 1990s. Sarangani province is a newly created province which split from South Cotabato as a result of the May 1992 elections. In terms of population, the coastal municipalities of Sarangani province are much smaller than General Santos City, averaging between 25,000 and 60,000 people (Figure 2).<sup>7</sup>

The major economic activities revolve around the fishing industry—both commercial and municipal—and agriculture. General Santos City is the major fish landing site with average annual municipal production of more than 60,000 metric tons (MT). Skipjack and yellow fin tuna are the two most abundant fish landed, accounting for around ten percent of all fish landed in the city. Although

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<sup>5</sup>There are literally hundreds of people in General Santos City, South Cotabato, and the Sarangani area who provided valuable information for this study and who are properly acknowledged in my dissertation. I was very fortunate to have a second chance to check my field notes and have access to additional information as a result of my work on the GSC/S/SC Groeth Plan under a contract with Louis Berger International, Inc. I am very grateful for the data, advice, and ideas shared by the LBI Environmental Team. Finally, I was very fortunate to have a wonderful and talented research assistant, my wife, Gigi, who conducted many of the interviews with me. Her valuable and enlightening contributions enriched my research and this paper and challenged me to make improvements and additions. Any errors that remain in this paper are solely my own.

<sup>6</sup>Louis Berger International, Inc., prepared under No. 492-0456-C-00-2014-00, a component of the SC/S/GSC Area Development Project, funded by the United States Agency for International Development under the Philippine Assistance Program in cooperation with the Department of Agriculture, Republic of the Philippines (1992).

<sup>7</sup>Louis Berger International, Inc., prepared under No. 492-0456-C-00-2014-00, a component of the SC/S/GSC Area Development Project, funded by the United States Agency for International Development under the Philippine Assistance Program in cooperation with the Department of Agriculture, Republic of the Philippines (1993).

Figure 1. Sarangani, General Santos City, and South Cotabato



the municipal production has stayed about the same over the past five years, the commercial production has dropped by 20,000 MT since 1988.<sup>8</sup>

The area has been influenced by a variety of different cultures that have created complex relationships and histories. Three major waves of human settlements migrated to Sarangani Bay's coast, with the first settlements believed to have begun in 4000 B.C. These earliest settlers probably came from the islands, which now make up Indonesia and were part of the Malay stock.<sup>9</sup> In the

15th century, Sharif Kabungsuwan of Arabia came to the area to spread Islam. Two tribal groups which had settled before this time, the B'laan and T'boli, resisted the Islamic missionaries and moved into the mountainous areas to preserve their cultures.<sup>10</sup> In 1939, General Paulino Santos brought 64 Christian settlers who established communities around the bay. Since World War II, the area has been considered to be a 'Land of Promise' like the rest of the island. Thousands of people from other parts of the country have migrated here to start a new life and avoid peace and order problems obtaining in their former settlements.

Today, the national government is interested in developing the area's resources by attracting more investment — both local and foreign — and

<sup>8</sup>Philippine Fisheries Development Authority, "Fishing Industry Profile for General Santos City," (July 1992).

<sup>9</sup>Teodoro A. Agoncillo, *A Short History of the Philippines* (New York and Toronto: The New American Library, 1969).

<sup>10</sup>Office of the City Planning and Development Coordinator, "Comprehensive Development Plan (1990-2000)," General Santos City, Region XI, Philippines (1990).

increasing exports. The area has been targetted as one of the growth centers in Mindanao. Other countries like the US and Japan are also interested in opening it for their investors. With these national and international interests, along with the local entrepreneurs and cultural groups competing for the fishery resources found in Sarangani Bay, it is interesting to conduct a case study on the interactions within and between the property regimes which establish rights over the use of fishery resources.

## Property Regimes

Government sources and the fishers themselves — both municipal and commercial — note as much as a 30 percent decline in fish production over the past 5 years.<sup>11</sup> The depletion of the Bay's resources may be partly traced to either an open access property regime where no management system exists or to the laxity in the application of the existing formal management system. Some fishing areas are open to everyone with few rules or norms being enforced to limit its accessibility.

Fishery resources have also been depleted due to unsustainable fishing methods. Illegal fishing methods in the area, which include the use of dynamite, poisons, and fine mesh nets, as well as the encroachment by commercial vessels in



Figure 2. Sarangani Bay

<sup>11</sup>Philippine Fisheries Development Authority, "Fishing Industry Profile for General Santos City," July 1992.

municipal waters, remain unchecked.<sup>12</sup> These methods result to overfished marine resources and the destruction of habitats, thus making them less viable in sustaining marine life. The destruction of mangrove habitats, due to small-scale cutting for fuelwood and housing purposes, and of coral reefs, due to coastal construction, also contributed to the deterioration of marine habitats. The denudation of nearby forested areas has led to wide scale soil erosion that has dumped soil and silt into the rivers. The rivers have carried soil and silt and have deposited them in coral reefs within the bay.

Since 1980, the number of fishers has increased tremendously, causing further depletion of fishery resources. Population growth in municipal fishing communities increased due to high birth rates and migration. The lucrative fresh tuna export industry has also increased the number of municipal fishers. The number of fishers is further increased by construction workers who often fish when they are unemployed and by farmers whose lands have become unproductive, especially after the drought in 1991 and 1992. Commercial fishers have increased mainly because of the demand for tuna and mackerel by the five canneries in General Santos.

### **State Property Regimes**

There are five levels of government units — national, provincial, city, municipal, and barangay. These levels are divided into two major groups — National Government Agencies (NGAs) and Local Government Units (LGUs). LGUs include provinces, cities, municipalities, and barangays. Provinces are made up of municipalities but are separate from chartered cities. Cities and municipalities are made up of barangays. Each level has three major branches of government — the executive, the legislature, and the judiciary. Sarangani Bay is bordered by General Santos City and four municipalities of Sarangani Province.

The major national law governing fishery resources in the Philippines is Presidential Decree (PD) 704, better known as the Fisheries Code of 1975. The Department of Agriculture (DA) is the major NGA responsible for implementing the Fisheries Code. Other national laws relevant to this study are PD 1599 which established the country's exclusive economic zone and Republic Act (RA) 5173 which created the Philippine Coast Guard — the main enforcer of fishery laws in coastal waters.

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<sup>12</sup>According to the Fisheries Code of the Philippines (PD 704, 1975), commercial fishers use boats that weigh more than 3 gross tons, fish in waters more than 7 fathoms deep, and fish more than 7 kilometers from the shore. Municipal fishers use boats less than 3 gross tons in weight or use gears that require no boats. Municipal waters extend 7 kilometers from the shore, but with the passage of the Local Government Code of 1991, coastal municipalities may exercise their right to extend municipal waters out to 15 kilometers.

Fishery management is the responsibility of the DA. PD 704 divides fishers into two groups — commercial and municipal. Commercial fishers use boats that weigh more than 3 gross tons, fish in waters more than 7 fathoms deep, and fish beyond 7 kilometers from shore. Municipal fishers use boats that weigh less than 3 gross tons or use gears that require no boats. Commercial vessels must be weighed, inspected, and licensed by the Coast Guard, while municipal fishers are subject to regulations adopted by the LGUs. The use of fine-meshed nets is illegal for all fishers. The eye of the net must be greater than three centimeters when stretched. Other destructive techniques such as use of dynamite and poison are banned. LGUs have jurisdiction over municipal waters which include the waters between the shore and 7 kilometers out to the sea. The Local Government Code (LGC) of 1991 allows LGUs to declare municipal waters up to 15 kilometers from the shore. LGUs may award concessions for the use of municipal waters through public bidding for activities such as fish, corals, *bangus* fry gathering, and oyster culture beds.

To assist the Coast Guard in enforcing these laws, the DA developed the *Bantay Dagat* (watch the sea) program which deputizes local barangay officials and fishers to apprehend fishers using illegal fishing techniques. The Bureau of Fisheries and Aquatic Resources (BFAR), which is under the DA, used to be a line agency implementing fishery laws and regulations at the local level. But now it is a staff bureau mainly in charge of policy-making and research. Despite having a dynamic fishing industry, the Sarangani Bay area has only few fisheries extension programs conducted by the DA. As a result of the LGC, these functions have been devolved to the LGUs.

The LGC gives LGUs more powers to manage and control their environment and natural resources. LGUs may choose to increase their jurisdiction over municipal waters from seven kilometers to fifteen kilometers. The governors, mayors, and barangay captains are the chief officers charged with enforcing fishery laws. The LGC further provides for the assignment of an agricultural officer in every province, city, and municipality to take charge of managing fishery programs. In the legislature, local councils may have committees on agriculture, fisheries, environment, and natural resources or combination of these. Furthermore, the LGC allows local non-governmental organizations (NGOs) concerned with fishery resources to assist the LGUs.

NGOs perform many of the duties and functions of government. For the purposes of this paper, NGO work is considered a service. It is further asserted here that the actual organizations and associations established by NGOs themselves provide the private or common property regimes set-up. In Sarangani Bay, several NGOs have had programs in the coastal areas. The latter part of this



paper will discuss in detail the projects of Structural Alternative Legal Assistance for Grassroots (SALAG), the Mahintana Foundation, Inc. (MFI), the South Cotabato Foundation, Inc. (SCFI), the Fisherfolk Research and Development Center (FRDC), and the Business Resource Center (BRC).

### **Private Property Regimes**

One reason General Santos City is considered a 'boom city' is because of the rapid growth of its fishing industry. The annual commercial fish production is more than 60,000 MT (PFDA, 1992). The high value of fresh tuna in the Japanese market turned this small town into a boom city. In the late 1970s and early 1980s, Filipino businessmen with connections with a Japanese fishing company, began buying fresh tuna caught in the bay and in surrounding waters from hook and line fishers. Before, these fishers were selling to the domestic market, but they welcomed the better prices they were receiving from the commercial vessels. Shortly thereafter, a local fishing magnate set up an ice plant and fish landing on shore in Barangay Bula, General Santos City. This proved to be a very lucrative business and soon other entrepreneurs began buying tuna from the local fishers and export them to the Japanese fish auction markets. A few years later, these tuna exporters increased in number and became unhappy with the fish landing in Bula because it was controlled by one person. They moved their operations to a landing site known as Lion's Beach in downtown General Santos near the public market and the domestic fish landing. The domestic landing has some landing facilities, but up to now the government has not allowed any permanent structure to be built there. The tuna exporters may only construct tents. Eventually, the landing will be located at the new fish port to be completed in 1995.

Tuna exporters either own pumpboats or at least finance the fishing trips of pumpboats. Pumpboats, or *bancas*, are motorized boats that weigh between 2 to 5 gross tons, but are licensed as municipal vessels. They are about 30 feet long with outriggers made of bamboo on either side and have large ice boxes in the middle of the hull to preserve the fish while at sea. These boats take a crew of 5 to 7 fishers on fishing trips that last between 10 to 15 days. The fishers fish with hook and line which allow them to drop their hook deep enough to catch the yellow fin tuna. Yellow fin tuna commands the best price in the Japanese fresh fish market. They also catch skipjack tuna and marlins. The major fishing grounds are the Celebes Sea, Moro Gulf, and Indonesian waters. The peak years for the tuna industry came in the late 1980s when close to 6,000 pumpboats were in operation. Today, only 3,000 to 4,000 are operating regularly.

One fishing trip costs about P10,000 (\$400). At the fish landing, the tuna are classified in terms of quality and the fisher is paid based on the classification and size of the fish. In the mid to late 1980s, fresh tuna were bought at Lion's

Beach for over P100/kilo (\$4), but in the last two years, the prices have dropped to P50 to P80/kilo. Prices fluctuate day to day and are highly variable because they are dependent on prices at the Japanese fish auction markets. Tuna fishing is a risky business due to the flexible market prices and uncertainties of fishing in the high seas with small pumpboats.

Also in the 1980s, tuna canneries began to be constructed in General Santos City. There are now a total of five canneries with two more being planned. Some of the canneries are owned by local businessmen while others are owned by big corporations based in Manila. The canneries are supplied with tuna and mackerel caught by purse seine vessels. Most of the vessels landing their fish in General Santos are owned by local businessmen whose boats are licensed commercially. These local fishing companies set *payaos* in the open sea to attract tuna. *Payaos* are fish aggregating devices that attract small fish first and eventually attract the larger fish like tuna. With the help of other boats, the purse seiners or ring netters will set their nets around the *payaos* and scoop all the fish, the majority of which are skip jack tuna. In effect, *payaos* establishes the property rights at sea because the companies set them and attach radios so that they can be located at a later time. General Santos City has a very active domestic fish market. The major fish landed here are *borot* (roundscad), *tulay* (big-eye scad), *bangsi* (flying fish), *bilang-bilang* (moonfish), *bangus* (milkfish), and *pusit* (squid). While some of these fish are landed in other places around the bay, the city remains the major market. These fish are caught from the shore using motorized and non-motorized boats and fish cages. The gears used are hook and line, multiple hand line, longline, bagnets, beach seines, fish corrals, and drift gill nets.

### Common Property Regimes

The level of community organization in the fishing villages around the bay is quite varied. Religion plays a major role in how villages are organized. In some of the small fishing villages located on the east and west coasts of the bay, there are Muslim fishing communities. Many of the families in these villages migrated from the island of Jolo (in the southwest part of the Philippines) to avoid peace and order problems on that island. These villages are usually controlled by a strongman who has authoritative rule in the village and is responsible for distributing some of the materials and goods in the community. These communities believe that they have been deprived of government support and seek more government services. In other areas, Christian fishing villages exist. These communities tend to form cooperatives among the fishers to gain access to markets, sell their catch in bulk, and protect themselves from piracy. These fishers generally want loans to finance fishing trips and to buy better fishing gear.

Some of the NGOs that have conducted programs in the area have been able to capitalize on the community-based resource management systems that were already in place. This is one reason why the associations have been

sustainable. These and other NGO initiatives in developing community-based resource management will be discussed in the next section.

This section has provided a simplified description of the major property regimes operating in the Sarangani Bay area. In practice, however, these regimes are difficult to categorize due to variations within the regimes and their interactions with other property regimes.

## Variations within Property Regimes

Variations occur within each of the property regimes — there are variations in the way individuals and groups apply the rules, norms, and codes of their regime to access and control common pool resources.

### Variations within the Philippine State

Historically, the Philippine State has lacked the economic resources, military and political strength, and administrative skill to enforce its will through policies and laws.<sup>13</sup> Compared to other Southeast Asian countries, it could be characterized as a weak but intrusive state. Weak in a sense that it is not able to maintain its control and authority over the actions of its citizens, but intrusive in such a way that it does not make attempts to intervene in some areas of the society in ways that will benefit the state and strengthen its ability to remain in power.

The Fisheries Code of the Philippines only makes three distinctions between commercial and municipal fishers — those who use boats that weigh more than three gross tons, and fish in waters more than 7 fathoms deep outside municipal waters are commercial fishers while the rest are municipal. This Code, however, seems to be inappropriate for fishing practices in Sarangani Bay because it fails to check the continued use of illegal fishing methods. Most of the pumpboats in the bay weigh between 2 to 5 gross tons and most of the fisheries are overfished. Some of the more than 6,000 pumpboats use active gears such as ringnets while others use hook and line methods. Some fish for tuna in far away waters while other stay within municipal waters. As a result, regulation of the fisheries in and around the bay has been minimal and the state laws and policies do not have much impact. Whenever possible, boat owners try to get their boats licensed as municipal boats because they are cheaper and permit the owner to fish anywhere. Furthermore, the *Bantay Dagat* program has had only a minimal impact. While it has helped curb the use of dynamite fishing in some areas, only a few fishers using this method have been apprehended. Other illegal fishing

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<sup>13</sup>Ed C. de Jesus, "Conclusion: An Agenda for Philippine Studies," in Alfred W. McCoy and Ed C. de Jesus (eds.) *Philippine Social History: Global Trade and Local Transformations* (Asian Studies Association of Australia, Southeast Asia Publication Series, 1982), pp. 448-453.

methods, such as the use of fine-meshed nets and poisons continue to be used. Municipal fishers are complaining of the encroachment by commercial vessels in municipal waters but their complaints are rarely acted upon.

The LGC provides LGUs more opportunities to regulate their common pool resources including fisheries. They may come up with their own licensing schemes and fishing zones. Some LGUs in Sarangani Bay have passed legislation zoning nearshore areas for *bangus* (milkfish) fry catching and banning certain fishing methods, but few have taken an active role in improving the enforcement of laws and in coming up with more appropriate licensing schemes. Furthermore, the people in charge of fishery management within the LGUs are the agricultural officers who have been devolved by the Department of Agriculture. These officers have been trained in agricultural practices and only a few of those assigned in the Sarangani Bay area have fishery backgrounds. The rest practically do not have any training in fishery management.

Enforcement of fisheries laws and regulations is lax throughout the area. Politicians, police, local officials, and the fishers themselves do not fully understand the laws and procedures, or when it is convenient, pretend not to understand. In most cases, the state acts only whenever it receives a complaint from an individual or group with enough clout to convince the state to act. It is rare to find cases where the state anticipates problems and responds based on its own data collection. The state's capability to enforce laws is limited. The Coast Guard is the main agency charged with apprehending illegal fishers but they only have a few patrol boats which are too slow to catch the illegal fishers. Several of the municipalities in the area were given boats to patrol the coast, but within a couple of years these

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**“Thus, the Philippine state, both at the national and local government levels, is a relatively weak state — unable to enforce its will, and in some cases, unwilling to exert its authority and control over common-pool resources. The application of its authority is vulnerable to manipulation by political leaders, officials, and private citizens. This leads to the variations in the application of its laws and policies...”**

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boats were no longer operating due to lack of maintenance. There are more incentives not to enforce laws rather than to do so because some powerful or influential individuals are the ones not following the laws, especially with respect to water pollution and commercial fishing in municipal waters.

Thus, the Philippine state, both at the national and local levels, is a relatively weak state—unable to enforce its will, and in some cases, unwilling to exert its authority and control over common pool resources. The application of its authority is vulnerable to manipulation by political leaders, officials, and private citizens. This leads to the variations in the application of its laws and policies described above.

### **Variations in Private Property Regimes**

Private property regimes are based on the assumption that the market forces of supply and demand will determine the quantity and price of goods and services. Each individual or firm must compete for resources and only those which are most efficient will remain in business. In spite of the inherent competition for common pool resources in private property regimes, there are many examples of cooperation between private sector individuals and companies from this area.

Most of the sub-industries within the fishing industry have banded together to protect their businesses. The South C otabato Purse Seiners' Association (SOCOPA) was established in 1980 by pumpboat owners and purse seiner owners to combat piracy<sup>14</sup> at sea and to bring harmony within the industry. They lobbied for the support of the government to protect their vessels at sea, and as a result, the government assisted them by forming the Citizens Armed Forces Geographical Units (CAFGU), a paramilitary branch of the army. The number of incidents of piracy declined after 1987, partly because of this strategy, but mostly because nearshore areas were overfished by the tuna boats. Now, the fishers are fishing farther away from the shore where few pirates are located. In the late 1980s, SOCOPA limited membership only to purse seiner owners. The pumpboat owners later started their own association. SOCOPA is a closely-knit group that is active in government councils and task forces. They have close ties with city officials.

The General Santos Traders and Tuna Exporters Organization, Inc. (GSTTEOI) was formed during the Gulf War in 1991 to protest the SOCOPA monopoly over diesel fuel supplies. Ironically, some of the members of this association are also members of SOCOPA because they own both pumpboats

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<sup>14</sup>Referred to locally as 'Ambak pari' (jump) which is the phrase that the pirates use when they attack a boat.

and purse seiners. They have also benefitted from the CAFGU because their vessels are small and are easier targets for pirates. Although not as active as before, the association is still lobbying the government for loans to finance fishing trips and research studies to determine why tuna fisheries in Philippine waters have been depleted.

The actual producers of the fishery resources — the small-scale fishers — being more prone to manipulation by the financiers, are the ones who benefit the least from the industry. The financier pays for the fishing trip on the condition that the fisher sells the catch to him, usually at a lower price. During lean periods, fishers must borrow from their financiers, which they are rarely able to pay, thus, remaining heavily dependent on the latter. Despite having to loan money or buy rice for the fishers during lean times, the financiers benefit from the steady supply of fish from the fishers at relatively stable prices. The more fishers they control, the steadier the supply will be. Small-scale fishers cannot spend a lot of time looking for the best price for their fish because they have no place to store them. They often enter into agreements with just one or two large companies even if it means receiving lower prices.

Fishers and laborers of big fishing industries are worse off because they do not have direct ties with their bosses and, thus, have no one to look after them during the lean times. Companies avoid hiring them as full-time employees to avoid having to pay them full-employee benefits.

The small-scale fishers supplying fish to the domestic market have formed cooperatives and one large association, the Umbrella Fish Landing Association (UFLA), in General Santos City. This association is composed of fishers, laborers, buyers, traders, and financiers. The leaders of this association come from the latter three groups and own and operate a variety of commercial fishing vessels and fishing gears. The fishers benefit from this association because it gives them ready buyers for their catch. Their leaders are influential as they are also members of other fishing associations such as SOCOPA and are serving on city task forces and committees.

At the tuna fish landings at Lion's beach and at the private wharfs the fishers are at the mercy of the classifiers who determine the quality of the fish, and therefore, the price. Syndicates operate at these landings where tuna are first classified at a lower grade so that the fisher (producer) gets a lower price, and then later sold to other traders and exporters at the actual value of the fish. There are people at these landings whose incomes solely come from cheating the fishers of the actual value of their fish. Fishers who complain about this system risk being

labeled as trouble-makers and no one buys their fish. Besides, many of the fishers are dependent on their financiers and are compelled to sell at prices dictated by the latter.<sup>15</sup>

In General Santos, some hook and line tuna fishers organized themselves into the Calumpang Development Cooperative, Inc. (CFDCI), which includes five associations. Their main objectives are to combat piracy and to try and gain access to the tuna export market without having to go through the tuna exporters. The CFDCI fishers were successful in pursuing their battle against piracy but not in gaining access to the export market. Their failure was caused by a consultancy group that tricked them into acquiring a large loan from a bank for new pumpboats equipped with refrigerators that were supposed to preserve the tuna longer and thus, would enable them to get higher prices. The consultancy firm also agreed to link them directly to a buyer in the Japanese fish market. After receiving part of the loan from the bank, the cooperative paid the firm a large consultancy fee and then bought twenty-five new pumpboats from the same. The refrigeration facilities on these boats turned out to be no better than the ice boxes that the fishers previously used. The cooperative was stuck with the loan payments while the consultancy firm closed down and left the city. The bank repossessed the boats and now the cooperative is no longer able to obtain new loans.

The five fish canneries in General Santos are not operating at full capacity and compete with each other for the fish that are landed in the city. Each cannery must submit a bid for the fish and the cannery with the highest bid gets the fish. However, the canneries have agreed to rotate the catch among themselves to ensure that they each get their share and avoid paying higher prices for the fish by deciding beforehand which cannery will submit the highest bid.

The provision of waste water treatment facilities has been a problem for the canneries. They complain of the high costs in building and operating these facilities, while the community complains about the odor and wastes being dumped in the bay. Although the results of the water sampling being conducted by the DENR are available to the public, the canneries are doing all they can to avoid being monitored and keep the data from being made available to the public. Furthermore, one cannery was able to open and start operations without any waste water treatment facility at all, even though such is a prerequisite for the issuance of a permit to operate. When the city government tried to shut down its operations, the cannery was able to continue operating in the middle of the night and eventually forged an agreement to be permitted to continue operations while a waste water facility was being constructed.

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<sup>15</sup>This information comes from interviews with fishers and tuna exporters. Only one classifier was interviewed.

What these examples have shown is that private firms in this area do not operate independently nor in complete competition with each other. They will pursue any means which will help them protect their control over resources whether through cooperation, competition, lobbying, or forging ties and linkages. The producers (fishers) who initially capture the common pool resources (fish) do not get a fair price for their product unless they are able to make connections with the next level of buyers, traders, financiers, and exporters. The fishing magnates in the area have successfully established these vertical linkages within the industry and as a result, control a large portion of the industry. These methods do not always follow market forces theories or private property rules, norms, and codes. Rather, they show that individuals and firms will manipulate situations and maneuver within the industry and government to create a favorable environment for their business. Without these manipulations of the institutional arrangements, individuals and firms cannot maintain their current access and control over the common pool resources.

### **Variations within Common Property Regimes**

Common property regimes in Sarangani Bay consists of several levels of organization. In general, the ones that have been the most successful in asserting their rights for access and control over the fishery resources have had some sort of assistance from the NGOs operating in the area. It is interesting to use these relationships as an example of the variations within common property regimes. The objectives of the NGOs, target groups, sources of funds, and types of assistance are the variables that influence these common property regimes. Table 1 will serve as a guide for this discussion:

#### **SALAG**

SALAG, a national NGO made up mostly of Ateneo de Manila Law School graduates, teaches fishers how to use the law to demand rights from the government. It also supports fishery reforms such as changes in PD 704 and the creation of management zones and land tenure arrangements for fishers along the coast. These fishery reforms have not yet been realized in the bay. The subsistence fishers will have to lobby the LGUs to allocate resource rights and access them; however, LGUs will be reluctant to give up this control.

In 1988, SALAG helped develop the Maguindanao, Samal, and Badjao Fishermen Association. These are Muslim groups found in the villages around Sarangani Bay who usually fish using the hook and line method. The association was converted into a cooperative and received its first loan from the local congressional office to assist them in organizing themselves. From the very beginning, there were problems with its internal organization, with the Maguindanaos on one side and the Samals and Badjaos on the other. Most of the disputes were over money and the groups could only work out their differences



Table 1. Sources of Assistance for Common Property Regimes

NGO	Target Groups	Type of Assistance	Main Sources of funds for fisheries projects
SALAG (a)	Small-scale Muslim fishers	loans; legal and organizational	Law graduates from Ateneo de Manila
MFI (b)	Small-scale fishers (mix) of religions)	grants; technical and organizational assistance	Dole Philippines and USAID (f)
SCFI (c)	Small-scale fishers (mix of religions)	loans; technical and organizational assistance	USAID and international church groups
FRDC (d)	Small-scale fishers (mix of religions)	research; legal and organizational assistance	AASAI (g) and Pamalakaya Pilipinas
BRC (e)	Small-scale fishers (mix of religions)	loans; research; financial management assistance	USAID and Notre Dame of Dadiangas College

(a) Structural Alternative Legal Assistance for Grassroots; (b) Mahintana Foundation, Inc.; (c) South Cotabato Foundation, Inc.; (d) Fisheries Research and Development Center; (e) Business Resource Center; (f) United States Agency for International Development; (g) Agro-Aquatic Services Association, Inc.

temporarily. Finally, in early 1991, the cooperative split into two different cooperatives.

### MFI

MFI was established by Dole Philippines and was given grants by the same company and the US Agency for International Development (USAID) to conduct marine conservation programs around the bay. Fishing communities which demonstrated evidence of organization to a certain extent, were chosen as project sites. MFI organized ten associations of small-scale fishers into a federation. The successful fisher associations in the federation are those that are able to screen members and keep out those with vested interests. These associations look for worthy members who are willing to undergo training and seminars to prove their sincerity about joining. In general, the leaders of these associations are young and energetic, not old, traditional leaders. Barangay officials are considered advisers rather than members because the associations want to avoid being politicized.

Projects were started with the technical assistance of MFI. These projects include seaweed culture, artificial reefs and *payas* construction, mangrove replanting, purchase of a commercial vessel, and training in the *Bantay Dagat* Program. Under the seaweed culture project, MFI paid participants for their

labor, instead of giving them loans. While the project was successful, fishers had been unable to sell their products due to marketing problems. The artificial reefs and *payaos* were also very successful in attracting fish and increasing the fishers' catch, although it is not yet certain if the artificial reefs have rehabilitated fish habitats. The first ones constructed were made of bamboo which had disintegrated within a year. MFI has recently started building artificial reefs made of cement. In general, mangrove planting projects were successful in areas where mangroves had grown before, but were unsuccessful in other areas. More research must be done regarding mangrove planting sites and the proper species to plant not only in the bay area, but also in many other coastal areas in the Philippines. A commercial vessel, referred to as a *sampana*, was also purchased for the federation. The catch from the *sampana* is shared among the associations with ten percent of the earnings put in rehabilitation projects in the coastal area. Although the *sampana* has raised the income of the fishers, it has run into a legal problem because it is a commercial vessel that fishes in the bay's municipal waters. Finally, the members of the associations were trained and deputized by the DA's *Bantay Dagat* program. This has helped in curbing dynamite fishing in some areas around the bay.

### **SCFI**

SCFI's program organized the fishers into associations, provided technical assistance for the construction of artificial reefs, and loans for the purchase of new fishing gears and equipment. The organization and artificial reef construction aspects of this project went well, but ultimately, the project was not sustainable because only 50 percent of the loans were paid back. The community members said that they had to use the money for more immediate livelihood concerns rather than for buying new gears and equipment. Furthermore, SCFI's office is more than 90 kilometers away from the project sites which made it difficult for the organizers to monitor the program.

### **FRDC**

FRDC projects have organized fishers on the north coast of the bay and have assisted fishers in filing cases against landowners who illegally cut mangroves to make room for prawn and salt farms and who have illegal titles to the foreshore areas. These cases have remained pending in the municipal court since 1987. They also assisted the Tambuyog Development Center in conducting a study of tuna hook and line fishers.

### **BRC**

Currently, the BRC has the best statistics and research studies of small-scale fishers around the bay. They wrote the first study of the fishing industry in General Santos in 1985. Since then, they have continued to update their

statistics. They have provided financial assistance and advice to fishers but have not engaged in community organizing.

These NGOs have capitalized on the existing community-based regimes that have been suppressed or changed over the past few decades due to the increase in population and competition for the resources. The lesson that many of these regimes have learned is that they must compete against others from outside their communities for access and control over the common pool resources. How they settle disputes with other property regimes for the right to access resources is the subject of the next section.

## Dispute Settlement Processes

In this section, disputes between fishers involving access to the common pool and the settlement processes involved will be discussed. The first part will discuss the dispute settlement processes that exist in the area. The second part will discuss the disputes between the groups of fishers — commercial vs. municipal, commercial vs. commercial, municipal vs. municipal, and local fishers vs. Indonesian government. The application of current dispute settling processes and some of the problems with current processes and institutions will also be described. The section will conclude with a discussion of the competitive and cooperative strategies employed by fishers to settle their disputes.

### Types of Dispute Settlement Processes

In Sarangani Bay, dispute settling processes have been influenced, in general, by two major legal traditions — 1.) local codes based on culture, ethnicity, and religion, and 2.) the state legal code based on Western law. I use the phrase 'in general' because lumping local codes under one category will seriously undermine the dramatic cultural differences of this area as a result of hundreds of years of immigration. The existence of both state law and traditional systems creates a situation where two or more legal systems co-exist in the same social field. This is known as legal pluralism. This view stresses the importance of understanding the interactions and contradictions between normative orders as well as how local systems have been historically derived.<sup>16</sup> The dispute settlement processes that currently exist in the area have been molded and influenced by other processes, partly as a result of the interaction between legal codes and partly as a strategy to exert control over other groups and resources. People are influenced by the whole of their universe and select legal systems and normative

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<sup>16</sup>Sally Engle Merry, "Legal Pluralism," *Law and Society Review*, Vol. 22 No. 5 (1988), pp. 869-896.

codes that are relevant to specific situations.<sup>17</sup> The reasons why people choose to follow a certain legal system or normative code at a particular time and in a particular situation are revealed more by determining their behavior than by describing the legal codes. Therefore, the emphasis on this section is on the application of dispute settlement systems.

As a result of this research, six dispute settlement processes were identified in the area — 1.) traditional, 2.) the state's *Katarungang Pambarangay* system, 3.) the state's formal legal system, 4.) state policies and law enforcement, 5.) LGU's policies and law enforcement, and 6.) international law. The first process, the traditional system, is based on culture, religion, and/or ethnicity and tend to depend upon village leaders to settle disputes between people within their community. The *Katarungang Pambarangay* system gives local barangay officials authority to settle disputes within their barangays. This system resembles the traditional system in such a way that it relies on elected barangay officials to resolve conflicts through amicable settlements. It also resembles the state legal system because these settlements legally bind the disputants. If the dispute cannot be resolved this way, then the disputants may take their case to the courts. According to Machado (1985), this system was a strategy by the state during the Marcos regime to penetrate local systems and increase state control at the local level.<sup>18</sup> The third process, the state's formal legal system, is incorporated in the Municipal Trial Courts and Regional Trial Courts. Municipal judges hear formal court cases, deliver judgments, and levy fines and penalties. The fourth process, state policies and enforcement, is mainly implemented by the DA through the BFAR. The major DA program in Sarangani Bay is the *Bantay Dagat* Program, while the Coast Guard and the Philippine National Police (PNP) shoulder most of the enforcement responsibilities. The fifth process, LGU policies and enforcement, has become more significant with the passage of the LGC of 1991. LGU officials now have more powers and responsibilities to develop their own local laws, policies, and enforcement procedures. The sixth process, international law, was established by the *Law of the Sea Convention* in the late 1970s. It allows countries to claim ownership of the ocean waters up to 200 kilometers from their shores or the midpoint between countries closer than 400 kilometers. The following is a discussion of the types of conflicts that have occurred in the area and how the six dispute settling processes are applied.

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<sup>17</sup>Franz Von Benda-Beckman, "Scapegoat and Magic Charm: Law in Development Theory and Practice," *Journal of Legal Pluralism and Unofficial Law*, Vol. 28 (1989), pp. 141, 144.

<sup>18</sup>G. Sidney Silliman, "A Political Analysis of the Philippines' *Katarungang Pambarangay* System of Informal Justice Through Mediation," *Law and Society Review*, Vol. 19 No. 2 (1985), p. 284.

### Conflicts over Fishery Resources

The major conflict between commercial and municipal fishers is the encroachment by commercial vessels in municipal waters. Commercial vessels are able to catch larger volumes of fish in a shorter period of time, thus, taking resources away from municipal fishers. Municipal fishers also complain that commercial vessels catch the female milkfish which depletes the lucrative milkfry fishery in nearshore areas. Many municipal fishers rely on milkfish fry for their livelihood and many traders make large profits from the sale of these fry. Another area of conflict is over the use of the *payaos* by the tuna fishing industry. Purse seine vessels set the *payaos* in the open sea to attract the tuna. The *payaos* are made with expensive ropes that often are cut and stolen by municipal fishers who fish around the *payaos* to catch yellow fin tuna or other types of fish with hook and line gears. These ropes are later sold in General Santos. In some cases, the owners of the purse seiners end up buying these ropes back in the city's market. A few years ago, the purse seiners retaliated by not allowing municipal fishers to fish near their *payaos*. They would chase them with threats and warning shots.

Local government executives play a major role in settling disputes between commercial and municipal fishers. Municipal fishers complain to mayors and barangay captains. Sometimes, they go to the fishery officers or the Coast Guard. The municipal fishers are dependent on the actions of local officials. Because the commercial fishers usually live outside the barangay or municipality, traditional and barangay systems of dispute settlement are ineffective. In one recent case, the municipal fishers reported a commercial vessel in municipal waters to their mayor. The mayor got the local police to confiscate the boat and arrest the thirty fishers on board. After a few days in the municipal jail, the mayor released the fishers because he said he could no longer afford to feed them in jail. No one interviewed in this study is aware of any case like this one that was tried in any court. Therefore, these types of disputes are usually resolved by local officials with the assistance of the Coast Guard or the Philippine National Police (PNP).

In the case involving the *payaos*, the conflict between the purse seine owners and the tuna exporters who finance the fishing trips of the municipal fishers was eventually settled. The purse seine owners agreed to allow the pumpboats of the municipal fishers to fish around their *payaos* if they agreed not to steal the ropes and turn in anyone whom they would find cutting the ropes. The number of ropes stolen in recent years has decreased partly because of this agreement and partly because of the fact that the *payaos* are now set farther away from shore.

Among commercial fishers, conflicts have been over diesel fuel supply, fish landings, and spawning areas. During the Gulf War, diesel fuel supplies were short and the purse seine owners had a monopoly over this supply. The fresh tuna

exporters formed their organization mentioned earlier in this paper just to demand a more equitable share of diesel supplies. During the early 1980s, the commercial fishers came into conflict over where to land their fish. The first private landing became monopolized by one fishing magnate such that others had to move to Lion's Beach. Those companies that became wealthy enough started to buy land and obtain foreshore area leases from the state along the northwest coast of the bay. They set up their own private wharfs in these areas. Today, this whole coastline is lined up with private fishing wharfs while other tuna exporters continue to use Lion's Beach.

The most recent conflict among commercial fishers is over spawning areas. Tuna fishing companies are complaining that commercial fishing in spawning areas leads to the depletion of tuna. They refer to the BFAR's reports that identify the Celebes Sea, including the mouth of Sarangani Bay, as possible spawning areas for tuna. Although more data need to be collected to verify these findings, many tuna fishing companies are eager to convince the government to enforce its law against commercial vessels fishing in municipal waters, specially in potential tuna spawning areas.

In conflicts among commercial fishers, the diesel fuel and fish landing conflicts have already been worked out. Since the end of the Gulf War, diesel fuel supply has been adequate. The construction of private wharfs lessened the problems around fish landing sites and the new fish port will give the tuna exporters a permanent place to land their tuna. The conflict over fishing in spawning areas still exists. At the moment, the tuna fishing industry is only complaining and asking for studies to be conducted by the government. They have chosen to pursue this dispute through national government agencies. In the meantime, commercial fishing continues in these possible spawning grounds.

Conflicts among municipal fishers center around the use of illegal fishing methods including dynamite fishing, poisoning, use of small mesh seine nets, and piracy.

Most disputes among municipal fishers are settled at the barangay level using both traditional systems and the *Katarungang Pambarangay* system. The institutions at the barangay level seek to obtain amicable settlements between the parties in dispute. Some cases are resolved within the local communities especially in cases where those involved in the dispute come from the same ethnic background, religion, or culture. In cases where the fishers involved in the dispute come from different municipalities, the national government agencies or local executives are asked to step in.

When Philippine waters are overfished for tuna, Philippine vessels and their *payaas* sail to Indonesian waters. In the open sea, it is difficult to determine the exact border between Philippine waters and Indonesian waters as provided

under the *Law of the Sea*. In 1991, fishers from General Santos were apprehended by the Indonesian navy and their boats confiscated. The Indonesian state, unlike the Philippine state, enforces its exclusive economic zone boundaries in this area.

At first, the fishers wanted the local government to make a strong statement denouncing these apprehensions by the Indonesian government. But the mayor at that time chose to pursue more diplomatic channels. The national government did not respond at all. This diplomatic route took a very long time and the fishers were held in Indonesia for over a month. Neither country was prepared to settle this kind of dispute. Furthermore, by not standing firmly behind the tuna fishing industry in this case, the mayor may have lost some of his supporters in the 1992 elections. Once again, the heavy reliance on local officials to settle this dispute is significant even though this is an international conflict that should have been settled at the national government or international level.

These cases show reliance on LGU's national policies and law enforcement in resolving cases. Few are resolved in the formal court system. The traditional systems and the *Kasarungang Pambarangay* system work well for disputes involving people from the same community or barangay, but are weak in settling disputes involving people from different communities and barangays. The main problem with these existing dispute settlement processes is that outcomes are very uncertain and dependent on action by government officials. The formal legal system is slow and people speak of this system as if once a case goes to court, the decisions will inevitably be dragged on or favor the wealthier claimant. Individuals lobby government officials to intervene in some situations, though not in all occasions, depending on the course of action which is most advantageous to them. Those in dispute shop around looking for the dispute settlement forum that gives them the best chances of winning.

These findings are consistent with another study conducted in the northern part of the country. Wiber found that the people in the community she studied maneuvered between legal systems to pursue their economic strategies. Local people used either the law or the local system depending on which one was more advantageous to them. She found out that while this was a successful strategy for some of the poorer people in the community, it also fractionalized the community. The plurality of legal systems and normative orders in this community broadened the context of rights, gave dispute settlers more latitude in rendering settlements, and affected the way decisions from the dispute settlements were applied. In both her study and this study, local people took advantage of the different legal systems and normative codes operating in their societies to achieve their goals.<sup>19</sup>

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<sup>19</sup>Melannie G. Wiber, "Who profits from Custom? — Jural Constraints on Land Accumulation and Social Stratification in Benguet Province, Northern Philippines," *Journal of Southeast Asian Studies*, Vol. 21 No. 2 (1990), pp. 329-338.

Another interesting finding of this study is that individuals pursue both competitive and cooperative strategies to settle disputes. Apprehending pirates and illegal fishers is a competitive strategy. The incidence of piracy declined after the government started the CAFGU program and armed fishing boats. However, the fishing boats remain armed even with the more manageable situation. Many illegal fishers are now armed, therefore, law enforcers must now come prepared to apprehend boats that could potentially fire on them. This decreases the effectiveness of the *Bantay Dagat* program which relies on the municipal fishers to assist law enforcers in apprehending illegal fishers. Furthermore, illegal fishers often fish at night, further frustrating law enforcers.

The federation of fishers and farmers mentioned earlier has chosen to compete against commercial fishers by operating their own commercial vessels in municipal waters. They have decided to compete within a private property context rather than a common one. This strategy may help in distributing the fish catch more equally within the bay. However, this may be another detrimental factor to the proper conservation of fishery resources. A positive outcome of this strategy has been the development of a more vocal and active federation in influencing local policies, thus, increasing the potential for marginal fishers to gain more control and access over resources.

Cooperative strategies have also been pursued in the bay. An agreement between municipal fishers and local government officials in one municipality set up a checkpoint to watch for dynamite fishers. This has helped in curbing dynamite fishing in the area. The purse seine vessel owners worked out an agreement with the pumpboats owners to stop the stealing of ropes from *payaos*. Both have benefited from the agreement and this shows the value of bringing disputants together to allow them to work out their own agreements without forcing settlements between them. In the Indonesian waters conflict, the Indonesian government is now charging rent for the use of its marine resources within its economic zone. This agreement was worked out between the local commercial fishers and fishing industries and the Indonesian government.

These results show the need for dispute settlement processes that follow traditional systems of bringing disputants together to provide mechanisms for broader participation and greater capacity to settle disputes between people from different communities and municipalities. By creating larger institutions that operate under local rules and enhancing public discussion and debate over how fishery resources should be managed, more cooperative strategies can be pursued and outcomes from future disputes can be more certain. The need for settlements to be enforced will be reduced if the disputants have entered voluntarily into their agreements.



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**"Dispute settlement processes cannot be separated from the larger political arena. In the area where dispute settlement mechanisms are weak, the political arena becomes more competitive and outcomes less certain....As long as strategies remain competitive with uncertain outcomes, fisheries are likely to continue to be depleted."**

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### **Conclusion**

Studies of property regimes in the Third World need to recognize the variances within property regimes and the relationships between property regimes. The state is often too weak to enforce its authority over common pool resources. State property regimes are easily manipulated by state officials who either act in pursuit of their private interests or, under the influence of powerful groups who attempt to manipulate the rules and regulations that control access to common pool resources. The users of common property regimes have learned to put pressure on the state to enforce laws and regulations in their favor, but these end up being isolated cases that do not strengthen or create institutions that are better equipped to deal with disputes over access and control of common pool resources.

Private property regimes are often supported by the state and their users generally know how to construct favorable relationships with government units. They sometimes function like common property regimes as when their users cooperate together to protect their control over resources.

Common property regimes have individuals that operate according to private property rules and principles. The goal of these individuals is to cooperate with each other to improve their ability to compete against property regimes. Common property regimes often require the support of the state or NGOs. Compared to other regimes, common property regimes are generally not well-

equipped to influence institutional arrangements outside their communities. They need to become more competitive to assert their rights to resources.

When comparing and contrasting the effectiveness of different property regimes, power is an important variable to consider. If common property regimes are to be promoted as viable management options, it must be understood that they do not act in a vacuum. They will be influenced, manipulated, and dominated by other property regimes. To assert their rights over common pool resources, they must understand the political arena in which they operate and compete.

Dispute settlement processes cannot be separated from the larger political arena. In the area where dispute settlement mechanisms are weak, the political arena becomes more competitive and outcomes less certain. The overall strategy of most individuals is to choose the dispute settlement process that is most advantageous to them. This creates competition as to which process to apply. It is important to take note as to who controls dispute settlement processes. As long as strategies remain competitive with uncertain outcomes, fisheries are likely to continue to be depleted. Although it is extremely important to understand the power dynamics in the local area before creating new institutions or strengthening old ones, government officials and resource managers should strongly consider developing dispute settlement processes that maximize public participation and debate, and that work for more cooperative strategies towards fisheries management.

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