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Enabling Fisheries Conflict Management: A Case Study in Cambodia

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I. Introduction

Cambodia is rich in inland fisheries. Fish are vital to many Cambodians and are important for both local and national economies. The rich in fisheries have close connection with the Mekong River and Tonle Sap Lake ecosystem. Tonle Sap Lake, with reverse flow of water from and to the Mekong River during the wet and dry seasons, is by far the most important freshwater lake for fisheries in the Mekong Region. Fish from Tonle Sap Lake migrate up and down the Mekong River. Some migratory fish species migrate up to upstream Mekong in Thailand and Laos. So, fish from Tonle Sap Lake are not important only for Cambodia, but also for the region.

At present, the lake is home to more than 500 fish species and more than 200 waterbirds. About 60% of commercial catch fish from Cambodia comes from the lake. About 11% of Cambodian population generates direct livelihoods from the lake and many others who live close to the lake depend on it for a living.

While fish are important and Cambodia's Tonle Sap Lake is rich in fisheries, the lake itself is a source of conflicts. The conflicts have occurred not just in recent times, but for many years already. Conflicts in inland fisheries could be attributed to many factors. In October 2000, the government instituted reforms in fisheries. Fisheries policies were revised as part of the reform. The reforms led to the release of 56% of commercial fishing grounds for local community use. More than 264 community fisheries have been established following the reforms and a community legal framework has been drafted (DoF 2004). Despite the reform, natural resources in the flooded plain of the Tonle Sap Region have been characterized by breathtaking inequity of resource distribution, accelerating environmental degradation from unsustainable patterns of exploitation, including loss and degradation of forests, flooded forests and other habitats, decrease in fisheries resources and fish diversity, decline in wildlife resources, change in water quality and hydrology, and an escalating level of conflicts amongst stakeholders with the highest poverty incidence in the country (FACT 2001, NEAP 1998).

This paper looks at the conflicts in inland fisheries in the Tonle Sap Lake and their impact on the community and its livelihoods, and examines how conflicts are managed at different levels of government.

Communication is important to help improve conflict resolution in Cambodia. This paper was prepared based on two case studies on enabling fisheries conflict management, conducted in Anlong Raing in Pursat Province and in Tamol Leu in Kampong Chhnang Province. The object of this study was to explore the possibility of improving fisheries conflict management. Two groups of people—conflict managers and primary stakeholders—were interviewed. Conflict managers comprised district governors, fisheries officers, commune council members, village chiefs; a total of 27 people were interviewed. Primary stakeholders interviewed comprised fishers from the two sites, totalling 111. Only the summary of the survey results from the case study was included in this paper.

This paper is structured into different sections. The first section starts with an introduction of fisheries in the Tonle Sap Lake—a freshwater lake in Cambodia. The second introduces fisheries conflicts in fisheries management system, policy and legal framework, and the decline in fisheries. In this section, conflicts in study areas are discussed. The third discusses fisheries conflicts management, the people's attitude toward the conflicts, and strategies for conflict resolution.

II. Fisheries in Cambodia

Cambodia is rich in natural resources, which include extensive forests, fertile soils and a rich inland fishery within the Tonle Sap catchment area and its floodplains. Nationally, the landings from freshwater capture fisheries have been estimated to exceed 360,000 tons¹ (valued at US\$350 million) and it is estimated that 235,000 tons of this production come from the Tonle Sap Great Lake and the Tonle Sap River. This abundance of aquatic resources is driven by the annual flooding cycle, which inundates the flooded forests and flood plains of the Mekong River catchment and the Tonle Sap Great Lake, and increases the area of the lake from about 2,500km² to over 12,500km².

Cambodians do not harvest fish only, but also a wide variety of other living aquatic resources from inland waters, flooded forests, wetlands, and rice fields for consumption and commercial purposes. The harvests include frogs, prawns, insects, mollusks, bi-valves, toads, snails, turtles, snakes, tortoises and wetland birds. The annual production of animals from ricefields ranges from 25 to 300kg of aquatic organisms per hectare with a market value of approximately 40-80% of the value of national rice harvest (ADB, FAO & DoF 2003). About four million people in Cambodia depend on aquatic resources and inland fishing for their livelihoods, either as their primary or secondary source of income and employment. When associated activities are considered, this figure probably increases to more than 50% of Cambodia's 13.5 million inhabitants.

The inland fisheries shares 9.5% of Cambodia's GDP and provides food and income to the majority of rural households with access to permanent or seasonal waterbodies. Fishing and farming form the backbone of food security for many rural populations. The contribution of the freshwater fishery to the food security and nutrition is at least as important as its contribution to rural development and poverty alleviation, as fish provide 40-90% of protein intake for Cambodians. In Cambodia, the annual per capita consumption of fish is between 40 and 75kg a year. Importantly, fishing is the mainstay of the economy for more than 90% of those fishers who have little or no access to cultivatable land.

Despite these dependences, access to most fishing ground is generally not reliable and therefore, it affects the food security and livelihoods of small poor villagers living around the Lake. Apart from rich resources in Tonle Sap Lake, it is also a source of conflict and competition amongst different fishing groups, from small- to large-scale fishers. The conflict continues and differs with different fishing scales. Small-scale fishers fall into conflict for survival while their large-scale counterparts compete to maximize returns of their investment and to ensure security of their investments over the fishing grounds in the following years.

The recent decline in fisheries has further fueled the conflicts amongst the fishing groups. Coupled with weak fisheries governance, poor enforcement and fisheries policies, the conflicts put the life of small fishers in a difficult position, with large-scale fishers winning the competition, a winning game that largely benefits the corrupt.

III. Fisheries Conflicts in Cambodia

Cambodia is rich in fisheries, but it is also a source of conflicts amongst user groups. The conflict stems from various factors, most importantly weak fisheries management system, policy implication, high population growth rate, and decline in fisheries resources.

¹ Kingdom of Cambodia Statistical Year Book 2003, National Institute of Statistics, Ministry of Planning, Cambodia (see also www.nis.gov.kh)

3.1 Fisheries Conflicts Arising from a Weak Fisheries Management

Fisheries management is weak and is potential for breeding conflicts within the sector. This started from allocation of inland fishing areas into the fishing lots about 100 years ago. This fishing lot system is still practised today. The current population growth rate of 2.5% a year has put pressure on fisheries and fishing lots over an increasing demand for fish as food from an equally increasing population. As most fishing areas are under the fishing lot areas, the incidence for the occurrence of conflicts is high. The Tonle Sap Lake is home to about three million people², most of whom derive their livelihoods directly from its natural and fisheries resources. These people actually face problems with large-scale operators when trying access to fishing areas.

In the Tonle Sap Lake and elsewhere in inland fisheries, the current exploitation system of capture fisheries is formally divided into three types: large-scale fishing, referring to the fishing lots; middle-scale fishing or licensed fishing; and family fishing, also called subsistence fishing (Fiat-Law No. 33 KRO.CHOR, articles 10 and 11, 1997). The conflict has occurred in each of the three scales. Somehow the system has potentials for conflict creation. This depends on the type of stakeholders involved in each fishing scale.

Table 3.1. Legal Categories of the Freshwater Capture Fisheries

Categories	Condition of accessibility	Duration of fishing operations	Fishing ground
Fishing lots	Leased out through an auction Leased as a research fishing lot	Only in the open fishing season : - 1 st October to 31 May for the fishing grounds located north of Phnom Penh - 1 st November to 30 June for the fishing grounds located south of Phnom Penh	Inside the fishing lot area but outside the area that is set aside for open access
Middle scale	Through a license for marine fisheries	Only in the open fishing season : - 1 st October to 31 May for the fishing grounds located north of Phnom Penh - 1 st November to 30 June for the fishing grounds located south of Phnom Penh	Public fisheries domain (the area outside the fishing lots, fish sanctuaries, and the protected inundated forest zones)
Family scale	Free	Whole year round	Everywhere except inside the fishing lot during the open season, and inside the conservation area

Most fishing lots in Cambodia are located in the Great Lake and the rivers and are referred to large scale. The fishing lot is divided into two types: the auctioned lot and research lot. The research fishing lot is a new management strategy. The idea of the research lot³ is to improve the management of the fishing lot through improving research on fish catch assessment, fishing operation, and the socioeconomic condition of fishing communities residing inside or nearby the fishing lot. However, as these lots are leased by private negotiation and not by public auction, there has been much suspicion about possible collusion in the arrangements for determining

² These people reside in five lakeside provinces; Siem Reap, Kompong Thom, Battambang, Pursat and Kampong Chhnang. The population around half of the lakeside and riverside depends on the lake and its associated wetlands for livelihood.

³ Research fishing lots started in 1997 with seven fishing lots; recently 35 fishing lots in TSGL were included.

payments. There are currently 36 lot fisheries in TSGL, of which 35 are earmarked for development and improvement (research fishing lots) and one as an auction lot.

Map 2.2 illustrates the fishing areas, the fishing lot and the areas released from the fishing lots. Most of the areas released for local people are located in the periphery of the lake body, most of which are less productive areas, dry out in the dry season, and the fish migrate down along the water. The productive fishing areas remain kept as fishing lots. For these reasons, the conflict continues, particularly around the Tonle Sap Lake.

Lot owners and leaseholders for both auctioned and research lots actually sell fishing rights to individual fishermen or groups of fishermen with certain conditions after the end of main fishing operations. The main fishing right arrangements include: fee per boat, fee for certain fishing grounds, fee for certain fishing gears, sharing of fish catch, or catch for certain fishing grounds or certain fishing gears. In some cases, lot owners offer some part of the fishing lot to the military in exchange for protection services. In practice the informal fishing lot management is quite complicated. The lot owners, leaseholders, sub-lease holders try to maximize their income by intensively exploiting the resource beyond rules, regulations and other conditions being documented in the burden book.

The medium scale fishing operation requires permission for the use of fishing gears from the Department of Fisheries and this license is subject to system fee for the gear uses. It is allowed to fish only in open fishing season starting from 1st October to 31st May every year, and is allowed in the public fishing areas. The medium-scale fishing operator actually conflicts with small fishers who also fish in the open or public fishing areas. The medium-scale fishing industry uses large fishing gears and is subject to government fee for the use of gears, increasing fishing efforts, but to some extent, affecting small fishers who use small fishing gears.

Large-scale fishing operators are actually having problems with other fishers, particularly the small fishers. In many cases in the past, fishing lot owners extended the fishing lot boundary into the community fishing areas. This happened due to unclear boundary and weak community fisheries. There are some problems when local people travel across the lot areas.

In recent years, the RGC regulates the medium scale as tax free (no permission fee). Both medium- and small-scale fishers compete for the resource in the common pool resources. Small- and medium-scale fisheries actually conflict, since the small cannot compete with their medium counterparts. Oftentimes, small-scale fishers are expelled from the fishing areas due to the limited size of their gears, power relations, and small capacity for fishing.

Inasmuch as they are not subject to tax, small fishers eventually graduate into medium scale. In the Tonle Sap Lake, none of the small ones practises small-scale fishing operation. Most of them fish with gears larger than subsistence. At the same time, medium fishing gears upgrade their gears also to maximize their catch over declining fish harvests.

Apart from the three main fishing scales and people involved in their operations, there are other key stakeholders as well that are involved in fishing operation in the Tonle Sap Lake. These include the military, local authorities, fishers from within and outside the village, fishing lot owners, lease and sub-leaseholders. The Department of Fisheries, its provincial offices and its local offices, are responsible for the management of fisheries resources.

Table 3.2 Main Stakeholders and their Interests

Main stakeholder	Resource base	Function	Interest
Fisheries Department	All fishing grounds	Manage the fisheries resource	<ul style="list-style-type: none"> • Revenue • Management • Research

Main stakeholder	Resource base	Function	Interest
Lot owner, lease/sub-leaseholders	<ul style="list-style-type: none"> The area of the fishing lot 	<ul style="list-style-type: none"> Concessionaires, private fishing right holders Large-scale fishing operations 	<ul style="list-style-type: none"> Maximize income: <ul style="list-style-type: none"> Fish exploitation Leasing out some areas Selling fishing rights
Military	<ul style="list-style-type: none"> Common access areas 	<ul style="list-style-type: none"> Employees of lot owner: protection services Control some open access De facto lease holder 	<ul style="list-style-type: none"> Revenues from: <ul style="list-style-type: none"> Selling open access areas Selling fishing rights Checkpoints in and outside the fishing lot
Local authorities	<ul style="list-style-type: none"> Common access area 	<ul style="list-style-type: none"> Selling open access area outside the fishing lot 	<ul style="list-style-type: none"> Income from selling open access
Villagers	<ul style="list-style-type: none"> Common access areas Agriculture Common property resources (CPR) 	<ul style="list-style-type: none"> Subsistence fishing: <ul style="list-style-type: none"> Own family labor Small-scale fishing gear 	<ul style="list-style-type: none"> Food security Income generation and subsistence from: CPR (fishing, farming, firewood, vegetable and wild animal gathering)

Source: Fishing lot inventory and PRA exercise, CCF.

The Table above shows fishing operations by various stakeholders, indicating the type of gear and type of fishing ground they use. Majority of the fishing operations by these stakeholders practise use of barrage, bamboo fence fishing, seine net operations, sweeping operations, pumping out lakes, ponds and electro fishing. These practices compete with one another, marginalizing small fishers in the use of most fishing grounds.

These fishing operations are conducted in different types of fish habitats, depending on the suitability of fishing gears to the fishing ground. It has been generally observed that sweeping the fishing ground more than once with small mesh size of seine net or using the bamboo fence method is common in almost every fishing lot. In addition, poaching inside the lot occurs also in almost every fishing lot. This is because most of the common access areas inside the fishing lot that are “set aside for the people” are used by the powerful and by lot owners. Illegal fishing in public fishing area is also common, using small mesh-size net with a long, electrocution fishing gear and seine net with motorboat.

3.2 Fisheries Policies and Their Implications for Conflicts

Existing fisheries management follows three deep-rooted philosophical ideologies: colonialism, capitalism, and socialism., Each ideology has a conflict in itself. The management carries colonial ideas that favor commercial fishing, but disfavors subsistence fishing and treats local people as less important. At the same time, the existing fisheries management follows Marx's theory of the socialist state, that the large- and medium-scale fishing activities are operated by state enterprises and solidarity groups at the community level, yet promotes large-scale fishing operations that conflict with small-scale fishing.

The current Fisheries Law prohibits private property rights (ICLARM 1999). Allowable fishing gears include drop net (gillnet) of less than 5m, scoop net with an opening of less than 2m, spear, harpoon, etc., all of which have been recognized since the French Protectorate regime and at present, not viable any more for survival. Small-scale fishing is limited for subsistence purposes only, but not for sale; in practice, though, subsistence floating community around the Tonle Sap Lake completely depends on sale of fish for their day-to-day livelihood.

Conflicts in the sector are rife. Competing claims arose from commercial interests, subsistence needs of a growing population, illegal fishing, violations by the commercial operators and poor governance in general in the fisheries sector (FACT 2001). In 2000, the fisheries sector was reformed. The government handed over 56% of commercial fishing lot areas to local

communities. Community fisheries⁴ were established in areas taken from the commercial fishing lots as part of the decentralization process. There are about 329 community fisheries established across Cambodia, and most of them are in or around the Tonle Sap Lake (DoF 2004). At the same time, a draft Sub-decree on Community Fisheries (SDCF) was developed to support community fisheries, while a new Fisheries Law is being elaborated by MAFF as part of the policy reform (DoF 2002). However, the areas released to local communities were the less productive fishing grounds and degraded. Even though community forestry and fisheries have been established, most of these groups are organized by the government in areas that are less valuable or degraded⁵. This aspect affects the capacity of local communities to effectively protect their resources⁶.

Community fisheries suffer from lack of recognition from the Department of Fisheries. The reason is that the draft SDCF has not been passed yet. In Pursat, despite the Memorandum of Understanding (MoU) between the Provincial Authority, Provincial Department of Agriculture, and Provincial Department of Environment, the decree has been designed to be used at the provincial level and is not considered as complete legal support to the Anlong Raing community fishery at both national and provincial levels. In Kampong Chhnang, the Provincial Fisheries Office has been involved in the formation of Tamoul Leu community fisheries, but the DoF has not given them full recognition.

The draft SDCF indicates that the DoF is the only agency responsible for fisheries domain and that community fisheries development should go through them. There is need to organize community fisheries under the DoF and the MAFF. Despite the development of community fisheries following the Government Decree on Community Fisheries after the fisheries reform, none of these community fisheries has yet been recognized by DoF. The Anlong Raing Community Fishery and Tamoul Leu are two of those that have not been recognized yet.

There is recognition of the role of Commune Councils to protect "the environment and natural resources," including, perhaps, fisheries. This is stated in Article 43 of the Law on Commune Administration. However, in the draft SDCF, the Commune Councils and other local authorities are required to *facilitate* the formation of CF. Another area where Commune Councils and other local authorities could be involved in is the settlement of disputes. In its current form, the draft SDCF stipulates that resolution of conflicts should be facilitated by MAFF and DoF. Given people's high level of distrust in both administrations, one may doubt about the efficiency of this mechanism. Consequently, one may think about introducing alternative conflict resolution mechanisms involving Commune Council members and representatives of other local authorities.

3.3 Fisheries Decline Leads to Conflicts

The people have attributed decline in fisheries to several factors, including irregular flooding, damming of the Mekong, deforestation, etc. Destructive fishing activities have almost always been universally cited as the primary reason for declining fish populations. Illegal activities include electrocution, use of lights to spear breeders, use of *manh*, *yangkao*, *zip*, motorized *uon*, mosquito net gear, and pumping ponds. There has also been a lot of fishing in the closed season. New destructive gears include the use of lights to attract fish and use of chemicals ("narcotics") to

⁴ Twelve *anukrets* or sub-decrees providing for the abolition or reduction of fishing lot areas were adapted from 15 December 2000 to 27 March 2001. Provinces affected by the reform included Battambang, Kompong Thom, Kandal, Kompong Chhnang, Pursat, Seam Reap, Banteaymean Chey, Kompong Cham, Phnom Penh Municipality, Kratie, Prey Veng and Takeo.

⁵ See Levinson, J. 2003. An examination of the Community Fisheries Sub-Decree: Changes and Developments during the Drafting Process, Stream Cambodia

⁶ Over 25 versions of the draft sub-decree were discussed (Levinson 2003). In addition, through sub-decree no. 24, dated 19th February 2001, license **fees** for middle-scale fishing gears were removed, although this category of gears was still licensed through the Provincial Fisheries Offices.

attract fish. The people likewise mentioned destruction of flooded forest to clear land for farming, cut firewood, or catch wildlife.

Several studies have shown that one fundamental determinant of fish production in TSGL is the hydrological flow in and out of the area.⁷ Some studies on the long-term trend of discharge from the Mekong River suggest that around 10-12% decrease in discharge happened since the construction of major dam building started in the middle and upper basins in the 1960s (ADB, FAO & FAO 2003).⁸

There are various reasons behind the decline in fish catch. Many people in the study areas agreed that the decline occurred because of destructive fishing practices. The practice got worse due to weak enforcements of the existing Fisheries Law in which the fisheries agents are held accountable. Destructive fishing has been practised by all fishing operators—small-, medium- and large-scale operators. Large-scale operators have been viewed as having great impacts on fisheries resources as their scale is obviously bigger than those of the others. Small-scale fishers in many cases fish to feed their families, their fishing gears evidently smaller than the large-scales' gears.

Overfishing is common along with destructive fishing practices. All fishing scales, small and large, aim at maximizing fish catch. Therefore, they intend to overfish in order to sustain their incomes. Illegal gears are used to overfish, including electrocution fishing gears, small mess-size nets, collecting fingerlings, and so on.

The Fisheries Law clearly divides fishing operations into small-, medium-, and large-scale fishing. In practice, however, it found no small scale fishers. All small-scale fishers graduate to medium-scale fishers in terms of use of gears. Small fishers claimed that it was not possible to catch fish for their survival using small-scale fishing gears. They then use bigger gears for catching enough fish for their survival, putting pressures on fisheries resources.

The current fish catch has so declined, small fishers have not been able to meet their need for food and to sustain their livelihoods. They have been compelled then to do whatever they could to survive, often beefing up fishing efforts by enlarging their fishing gears or using gears that would give them quick returns. They are aware such practices are illegal, but feel helpless with declining fisheries. Their key question is: Survival or respect for the law? If fisheries law on small-scale fishing is to be followed at the present state of decline in fisheries, subsistence fishing gear is no longer useful to catch enough fish to feed a fisher's family of 5-6 people. This drives many small fishers to illegal fishing and the only way is to use big gears for bigger and quicker returns. They also agreed that the existing Fisheries Law could not ensure their livelihood. In this instance, all fishing activities fall into illegal types.

Many people question the delay in updating the existing Fisheries Law, although none of the fishers follow it. Fishers who do not follow the law are considered engaging in illegal activities, but small fishers will not survive if they fish according to the Fisheries Law. To survive and to keep their business, small fishers are forced to pay an informal fee during official crackdown on illegal fishing. By the time the new is passed, the fisheries would have already been severely depleted. The initiative to update the Fisheries Law started in 1999. It took more than five years to get the

⁷ The relationship between fishery production and hydrology has been well-documented by an ongoing study of the *dai* fishery in the Tonle Sap River. Results to date indicate that the magnitude of the annual fish catch (mainly small migratory cyprinid species) is strongly correlated with the magnitude of the wet season river discharge. The key operational parameters subject to annual variation appear to be the quantity of fish seed transported into the TSGL by the Mekong River backflow, the size of area seasonally flooded in the TSGL, which is available for grow-out, the flood duration and the quantity of nutrients available in the system.

⁸ There is also no apparent long-term trend in rainfall for the middle Mekong River area (ie Luang Prabang).

final draft of the law to the National Assembly. While the old law is still valid for the existing fisheries management, fishing by small fishers remains illegal.

The flooded forest, surrounding the lake, which is important for fish growth and habitat, has also declined from about one million ha in 1960 to 362,000ha in 2000 (ADB 2002). An interview with local community fisheries committee disclosed that the flooded forest within the study areas has declined. This disclosure, however, is yet an unofficial record. The flooded forest in Tamol Leu has also almost disappeared while in Anlong Raing has large areas still under the flooded forest.

Conversely, in Tonle Sap, the fisheries staff from the Provincial Office of Kampong Chhnang and Pursat reported that the fish catch had not declined and would remain the same. The reason, they said, was because the fisheries sanctuary in the Tonle Sap was well-managed and the campaign on illegal fishing was made more effective than before, and that many illegal fishing operations were prevented, which contributed to increased fishing production. Only the fisheries staff, however, provided the explanation that there was no decline in the fish catch contrary to the report of other government people, commune council and the local community who confirmed the decline. Also, amongst the fisheries officials interviewed, one officer indicated a declining fish catch.

Population growth, fish catch, and fishing technology are in different development patterns. Population and fishing technology have increasingly been in the upward trend, while fish catch has been deteriorating. Competition amongst small-, medium- and large-scale fishers in Tonle Sap has significantly intensified vis-à-vis use of influence, technology, and financial capital, which large-scale operators have in abundance. Violations from all fishers have become rampant that naturally led to conflicts. Conflicts differed between the two sites.

IV. Results and Discussion

4.1 Fisheries Conflicts in Tamol Leu and Anlong Raing Villages

Anlong Raing, in Kampong Por Commune, Krakor District, Pursat Province, is a floating village located in the eastern shore of Tonle Sap Lake. The village is home to 93 families, most of them engaged in fishing as a primary occupation.

Tamol Leu is located in Koh Tkov Commune, Chulkiry District, Kampong Chhnang Province. This village is situated along the Tonle Sap River in Kampong Chhnang. It is home to 284 families, most of them engaged in fishing and farming. Fishing is an integral part of their livelihood and forms the basis for food security of villagers. This village is submerged by flood when it is at peak, from July to September.

Conflicts in fisheries in these areas have long been occurring, due mainly to competing claims on fisheries resources predicated by rising commercial interests, a growing subsistence population, illegal fishing, and an increasing demand for agricultural land, water, and fuel wood. Conflicts have involved fishing lot owners, local authorities, military, police, fisheries officials and local communities.

Poor governance—reflected in the absence of formal structures for complaint resolution and a lack of transparency and participation—has excluded fishers from decision-making and resource management. The disparity in power between the various actors has compounded the escalating situation and ensured that conflicts tend to be resolved by the use of force rather than negotiation. Although conflicts are widely documented in existing literature and media reports, there is currently no central focus for the accurate collation of conflicts or for dispute resolution.

Table 4.1. Fisheries Conflicts in Anlong Raing and Tamol Leu

Type of Conflict	Anlong Raing	Tamol Leu
Conflict between small fishers and larger fishers	Conflict between community fisheries and fishing lots 7, fish sanctuary about the unclear boundary	Conflict between farmers and fishing lot owners over the use of water for agriculture and fishing
Conflict between fishers and fishers	Fishers from outside encroached the CF areas, did illegal fishing using electrocute fishing gears, small mess-size net, push boats and trawler	Fishers from outside encroached the CF areas, did illegal fishing using electrocute fishing gears, small mess-size net, collecting the fish fingerlings
Conflict between fishers and powerful people	Powerful people support illegal fishers to fish near CF areas	Powerful people confiscated the fishing grounds from public use to grow lotus
Conflict between fishers and fisheries officials	Fisheries authorities do not give clear roles and responsibility to CF to manage its areas.	Fisheries authorities did not give clear roles and responsibility to CF to manage its areas.
Conflict between fishers and local authority	CF in Anlong Rain gains strong supports from local authority	CF in Tamol Leu gained strong support from local authorities
Conflict between fishers and armed group	No	No

Source: Field Survey, 2004-2005

The Table above illustrates the types of conflict between fishers and other actors in the two studied sites. It also highlights specific cases of conflicts compared with the overall conflicts in the Tonle Sap Lake.

Table 3.4. Main Conflicts in Fisheries and Stakeholders Involved in Selected Fishing Lots

Sources of Conflicts	Parties Involved	Trade-off	Effects on Fisheries
Sale of common access areas	Lot owners, powerful people, military, community	<ul style="list-style-type: none"> • Benefit for lot owners and military • Reduced income of the community 	<ul style="list-style-type: none"> • Intensive fishing activities taking place • More fishes were caught
Extending the fishing lot boundary	Lot owner, community	<ul style="list-style-type: none"> • Benefit for lot owners and military • Reduced income of the community 	<ul style="list-style-type: none"> • More flooded forest protected • More fish caught
Confiscating the fishing ground for lotus planting, fishers	Fishers, fisheries officials, local authorities.	<ul style="list-style-type: none"> • Benefit to other fishers, • Spread of illegal fishing 	<ul style="list-style-type: none"> • More and more fishers following those who did illegal fishing.
Poaching inside the community areas	Individual fishers	<ul style="list-style-type: none"> • Short-term benefits for individual fishers • Destruction of community fisheries areas 	<ul style="list-style-type: none"> • Illegal fishing gears used • More fish and habitat destroyed
Agriculture activities in the fishing ground	Community, lot owners	<ul style="list-style-type: none"> • Short-term benefits of the community • Reduced fish productivity 	<ul style="list-style-type: none"> • More flooded forest area converted to agriculture land

Source: Field Survey, 2004-2005

The wealth of fisheries resources, on the one hand, and the revenue-oriented governance mechanisms lead to high competition for the control of these resources. Conflicts occur almost everywhere. The main conflicts amongst the stakeholders are shown in the Table above. These include the sale of common access areas by lot owners or by the military, extending the fishing lot beyond its boundaries and closing waterways by the lot owner, poaching inside the community areas, and agricultural activities in the fishing areas.

4.1.1 Illegal Fishing Practice and Poor Governance in Fisheries

It is acknowledged that enforcement is very inadequate in fisheries, and identified collusion as a major problem. Authorities end up charging fees, but not actually stopping illegal activities. This was tied to inadequate rewards for people making arrests, lack of motivation, low salaries, lack of equipment. In Kompong Chhnang, various authorities charge fees for mosquito-net gear, based on the length of the gear (protection fees). People said that the illegal gears were often given back to the offenders rather than being destroyed. They also said that rich people would always get away with illegal activities.

Communities claimed that when they reported on illegal activities, there was often no response; or when illegal fishers found out they were reported, they would stop their illegal activities before authorities could even come. In Pursat, the communities said the authorities would show the communities's report to the illegal fishers who would then blame the communities, not officials, for trying to stop them. Businessmen were said to buy electrocution gears for people and buy fish back from them at a cheaper price. The problem was that people who produce or sell illegal gears (like electrocution gears) aren't arrested. In two provinces there were recent cases on illegal activities, but when fisheries officials did not take any action, the communities intervened and brought the illegal gear to fisheries offices. The illegal fishers sued the communities but the courts sided with illegal fishers. Fisheries officials were also accused of giving permits for large gears like *manh*, *neam*, and *uon*. These activities are not supposed to be pulled by motor, but inevitably are.

Definitions of family-scale gears in Fiat Law 33 were described as too restrictive and unrealistic, leading people to engage in illegal fishing. On the other hand, in Pursat, people said that *chuch* should be made illegal; currently it is defined as a family-scale gear.

4.1.2 Sale of Common Access Grounds

This happens when fishing grounds are taken away by powerful people, military and other people. The benefits go to the individual lot owners and the military. The livelihood of the community is affected. There was this case in Tamol Leu where public fishing areas were taken by the powerful people for lotus planting. The rest of the community was not given access to this area.

4.1.3 Illegal Extension of the Fishing Lot Boundaries

Extending the fishing lot boundary commonly occurs in lots located around the Great Lake. This happens when the fishing lot boundaries are not clearly marked. For example, an open side of the fishing lot boundary allows the lot owner to extend his lot. Extending the fishing lot boundary brings more benefit to the lot owner. This happened in Anlong Raing village in 2003 and 2004 due to unclear boundary between community areas and fishing lot No.7 in Pursat.

In Anlong Raing, one of the major conflicts is between community fisheries (CFs) and lot owners over the boundaries of their respective areas. The CFs were established in 2001 in fishing areas released for community use, but there was no clear boundary demarcation for community. This conflict led to a series of re-demarcation efforts over the boundary areas with the involvement of different stakeholders in overseeing the issue and deploying boundary poles, but these were removed again and again. The boundaries of the CF areas remained unclear.

4.1.4 Poaching inside the Community Fisheries areas

This happens almost everywhere, especially in areas where the CFs were established. Both Anlong Raing and Tamol CFs faced these problems. In Tamol Leu, CF areas were poached by illegal fishers for fingerling collection. The CF Committee (CFC) tried to stop illegal poachers, but was charged by illegal fishers for violating their rights as individuals. The case was brought to court that scared the CFC in performing future roles. In most cases, poachers had the backing of

powerful people and sometimes were the green light by the powerful. The CFC remained undaunted and took the risk to stop illegal fishing.

In Anlong Raing, despite the establishment of the CFs, fishers from outside the community came to fish, using different fishing gears, including small mess-size net with motorboats to push and trawl near the community areas. The CFC also reported that electrocution fishing was also commonly practised by neighboring communities into the CF areas. Efforts from CF members to stop these activities were futile. Sometimes villagers would arrest the poachers and bring them to fisheries office nearby, but they would soon be released, would commit the same illegal practice again and hold enmity against CF members who arrested them. The CFC likewise reported that these poachers were supported by unidentified powerful groups. This posed risk to CF members to arrest them. The CFC was accused by fisheries officials of usurping their roles and responsibilities. According to Fisheries Law and Draft Sub-decree on CF, the CF people could not make any arrest but could only report to the nearest fisheries office. This has made way for more illegal fishing activities inside the CF areas, making the poachers more daring in their illegal fishing activities.

Once the CFC allows these people in and fish with gears, other community members would learn to do the same. If the CFC continues banning illegal poachers, they would be bold enough to strike back as they are supported by some powerful people.

4.1.5 Agriculture versus Fishing Activities

This conflict relates to the differences between lot owners and farmers over the use of water for irrigation and fisheries. In Tamol Leu, fishing lot owners limited local fishers from using water from their lot areas for irrigating their rice field. The issue in contention was that ricelands belong to local people, but these lands are within the fishing lots. During wet season, ricelands are under water and fishing lot owners manage the water. When the dry season comes, farmers have a need for the land for agriculture purposes. They would then need to irrigate their ricefield with water from the Tonle Sap River. Conflict ensues when farmers are prohibited from using the water for irrigation because fishing lot owners believe it would disturb the fish. A similar conflict occurred in fishing lot numbers 13 and 14 of Kampong Chhnang Province near the study areas, when fishing lot owners and residents within the lot had a row over the use of water for different purposes.

Sometimes, fishing lot owners demand the community to pay them for the use of water. There had been instances when lot owners would pump the water out of the lake to catch fish, inundating and spoiling rice crops of farmers.

In Anlong Raing village, due to shortage of water for upland agriculture and decline in fish catch, some flooded forest near the villages were burned down and cleared. Villagers opted to grow paddy rice during low fish harvest. Given this situation, it was believed that farming inside fishing areas could be made.

4.1.6 Conflict between Community Fisheries and Fisheries Officers

The CFs were established involving different stakeholders from Pursat and Kampong Chhnang Province, but they have not been legally recognized yet. The draft SDCF has not been approved after its first draft in 2001, leaving the CFs volatile.

Local authorities, such as the Commune Councils and District Authority, provide a strong support and recognize the CFs from the start. Despite this support, however, the CFs have not been fully recognized by the national government, especially the DoF and the MAFF, making the CFs uncertain of their fate.

In Tamol Leu, despite the CFs, illegal fishing activity continues. A case involving the CFC and illegal fishers is still pending at the provincial court of Kampong Chhnang. Illegal fishers accused the CFC of attempting to hurt them; the CFC accused them of illegal fishing inside the CF areas. There is no support from Fisheries Office or other agencies for the CFC. As a result, two CFC members were taken in custody for about a week after accusations were filed. Investigations on the alleged illegal fishing activities have not been made, and offenders have remained free from legal action.

As a result, the CFC became less active in preventing illegal fishing activities inside the CF areas. Illegal fishing activity continues, mainly through electrocute fishing, small mess-size net and catching fingerlings, which was quite common in the area. The CFs had difficulty confronting the illegals because of the support they get from the powerful in government.

Anlong Raing and Tamol Leu CFs have not been given any responsibility; however, they take it upon themselves the responsibility of protecting the resources, which, ironically, the fisheries administration considers illegal. Because the administration did not allow the CFs to act on illegal fishing, the activities went on as usual. The CFs struggled to stop them, but received retaliation instead and were blamed by the administration for doing things without legal basis. The local community, in turn, blames the authorities for being lax in their enforcement duty, on the pretext that the place is quite remote and that they lack the needed resources to come for enforcement. When, in their absence, the CF members act against illegal fishing, they fault the members instead of being commended for doing the duty that is duly theirs. The CF reports on illegal activities have often been ignored by the fisheries officials and whenever they complied to come, they would be late, such that by the time they arrive at the place, illegal fishers have already escaped. Moreover, the CF reports revealed, illegal fishers are not afraid of meeting the officials, since no action has been meted on the offenders. This has emboldened the illegal fishers to continue with their business despite their blatant violation of the law.

4.2 Enabling Fisheries Conflict Management

The DoF is responsible for fisheries management. The Fisheries Law gives DoF the legal basis to oversee the fishing areas. The Law focuses more on fisheries management and enforcement, but less on people who use fisheries resources. The Law provides no clear conflict resolution mechanism.

On fisheries conflicts, about 81% of the conflict managers interviewed believed that powerful groups of fishers would be able to win their conflicts over their less powerful counterparts. There is small chance for small fishers to win due to weak legal system, weak juridical system, and low level of understanding the legal framework. Their being politically weak and financially poor makes the small fishers' relations with other government officials equally weak and poor. There is also the lack of a legal framework over such conflicts in the absence of the SDCF.

This legal discrepancy has affected the community fisheries in the study areas in that they were not able to cope with illegal fishing activities and, more importantly, became unable to manage fisheries conflicts. Fifty-six percent of conflict managers (CMs) and 90% of primary stakeholders (PSs) (Table 4.3) agreed that the CFs could not manage fisheries conflict themselves. Quite the contrary, 33% of CMs and 10% of PSs (Table 4.3) disagreed, indicating that the CFs could manage conflicts in their community given a clear role and responsibility, and if they have ownership of the fishing areas as guaranteed by law.

In general, about 30% of CMs and 82% of PSs believed that fisheries conflicts could be resolved, while 67% of CMs and 14% of PSs disagreed (Table 4.3). Some of the conflicts are deep-seated and involve many stakeholders. Evidently, they could not be resolved by a single party. In addition, 41% of CMs and 77% of PSs indicated that conflicts could be resolved by the government only; 55% of CMs and 19% of PSs (Table 4.3) disagreed, indicating that the CF

members themselves could also manage conflicts if they are given proper support. The NGOs could also help the community to manage conflicts effectively.

Conflicts could not be resolved by DoF alone because its focus is more on fisheries resource, not on people, even if these resources are located in areas of their particular administrative boundary and local people in these areas use these resources. It is imperative, therefore, to involve the institutions responsible for the administration, resources management, and fisheries together. The provincial authorities should be participating in conflict management as they co-exist with those causing conflicts and those using the resources.

Amongst those interviewed, 93% of CMs and 95% of PSs (Table 4.4) indicated that fisheries conflicts could be resolved, if relevant parties get involved and are willing to contribute to conflict resolution. They believed that conflicts could not be addressed by fisheries administration alone. It should involve commune councils, the provincial authorities, environment departments, and other relevant agencies. NGOs can play an important role in conflict resolution as an independent body.

Conflict managers, such as commune council leaders, village chiefs, CF leaders, district governors, provincial governors, and fisheries officials could initiate problem-solving exercises for fisheries conflicts, rather than waiting for solution from the top and outside the area. Communities often approach local authorities, particularly the commune councils for conflict resolution, because they have voted for them and because they trust that, since commune council members live with them, they could represent them during conflict resolution. They should start solving the conflicts, which 96% of CMS and 99% of PSs (Table 4.4) believed they could do so effectively what with local people also trusting them, particularly if they could engage different stakeholders.

In conflict management, understanding the legal framework is important, especially when discussing legal and non-legal matters and issues pertaining to the conflicts. Twenty-six percent of CMs and 99% of PSs (Table 4.4) thought it was important to understand existing and policy-related issues on fisheries. However, in local Cambodian context, informal and out-of-court system of conflict resolution works better and people often prefer this as it costs less, involves less time, and maintains cordial relationships between conflicting parties. This arrangement, however, requires third, independent and powerful party that both sides trust only from their locality. The third party needs to build communication between conflicting parties and through meetings that could sometimes improve conflict situation. Thirty-three percent of CMs (Table 4.4) agreed that an informal legal system work more effectively than the formal system. The reason is that local communities have simple traditional conflict-resolution mechanisms, most of which have not been used for conflict resolution. Oftentimes laws and policies are imposed on people, but are unacceptable to most of them, who are, in return, feel victimized.

This does not mean that communities do not need government. On the contrary, the CFs need the government and government could influence conflict resolution, help reduce conflicts in fisheries and, more importantly, encourage use of indigenous practices for fisheries conflict resolution. The CMs (89%) and PSs (92%) (Table 4.4) believe that the community needs government influence to reduce conflicts in fisheries and that community is part of the solution. While the government's role is essential in conflict resolution, government institutions must understand local contexts, needs and practices if real solutions are desired. Better understanding of the needs of conflicting parties could help resolve conflicts much easier; 55% of CMs and 80% of PSs agreed with that. However, other factors may need to be considered if the conflict is complex, which 41% of CMs and 20% of PSs (Table 4.4) agreed, such as involvement of different agencies, and a policy and legal framework to guarantee sustainability.

Fisheries conflicts could not be resolved by a single party and by the Fisheries Administration alone. The Commune Council should be involved in conflict resolution. It has been a mistake in the past to ignore the Council's role in this aspect. Actually local people trust the Council more than anyone else because they elect its members to work for local people. Besides, the CFs are

under the Council's jurisdiction and, in the event of a conflict occurring, the Council's administrative boundary makes it responsible to take any action leading to arrest and detention of offenders. Although the Council has fewer roles in fisheries management, the fisheries resources under their jurisdiction are by no means their responsibility. Ninety-six percent of CMs and 99% PSs support the idea that the Council and village leaders should work together to solve fisheries conflicts (Table 4.4). Only 26% of CMs and 58% of PSs (Table 4.5) felt that the lower level of local authorities could not resolve conflicts by bringing conflicting parties together to discuss the issues.

It is not only the Council that should be involved in conflict resolution, but also the local fishing community. The community can be organized as CFs, an alternative way of building capacities to manage fisheries resources at the local level. Given the CFs' important role and responsibility, guaranteed by laws and decrees, they will be able to manage fisheries to avoid conflict. This is part of decentralization strategies of the RGC. About 70% of CMs and 97% of PSs (Table 4.5) agreed that conflicts could be resolved by building the capacity of community fishers, which could be more effective than waiting for enforcement from a distant fisheries officer. Another 74% of CMs and 99% of PSs (Table 4.5) indicated that if the Community Fisheries Committee could institute its own by-laws, respected by all stakeholders, conflicts would be minimized and at the same time help empower the CFC. Despite this, however, conflicts in the study still prevailed.

Nineteen percent (out of 70%) of CMs and 1% of PSs felt that it is easier said than done, because in reality, although the CFs' capacity has improved, the politics and interests of different stakeholders over fisheries resources are the ones that often cause the conflicts. And another 15% (out of 74%) (Table 4.5) of CMs did not feel the importance of the CFC by-laws because they have not been prepared to serve the people needs, but to satisfy the approval of the Fisheries Administration, and have only been set for subsistence. The fact is, subsistence is only on paper, but nobody hardly found its use. Not all people in the community have also joined the CFs; therefore, there are still other people who do not follow the CF by-laws.

The existing fisheries management is believed to be weak. Enforcement is also weak. This gives rise to conflicts. Strict enforcement of regulations can certainly improve fisheries management, leading to reduction of fisheries conflicts. About 85% of the people interviewed agreed with this. However, this is not that simple in the Cambodian setting, where strict enforcement could jeopardize the small fishers' livelihoods as most regulations cannot ensure meeting their basic needs.

Fisheries conflicts could not be resolved by force because fish is food, which the community cannot live without. The poor would much rather suffer under conflict than wait dying without food. There must be a simple way though to end fisheries conflicts and the best way possible is through dialogue and negotiation, which could be done through open communication between conflicting parties, facilitated by an independent party or group that both parties could trust. Seventy-eight percent of CMs and 98% PSs shared this view (Table 4.5). Negotiation and dialogue should not be held just once or twice, but many times. Apart this technique, fishing could be resolved through a public forum and building consensus building, which 85% of CMs and 95% PSs agreed (Table 4.5) are the key to end fisheries conflicts. On the other hand, 11% of CMs and 5% PSs (Table 4.6) did not agree that these techniques would always work, saying that it would require time for conflicting parties to consider and it would also have to consider laws pertinent to this.

Conflict resolution should be a government responsibility, yet the key here remains to be the community. Government must work with the community in finding solutions favourable to the conflicting parties. Both CMs (52%) and PSs (83%) agreed that the government is the only agency that could manage conflict as opposed to 41% and 15% of CMs and PSs, respectively, who considered otherwise (Table 4.6). The community should actively participate to ensure that the resolution benefits them. During the old regime, government-prescribed solutions were not

what the community desired. A democratic society guarantees community involvement in conflict resolution.

The community considered it necessary to assist government agencies in reducing/resolving conflicts, since it is to their interest to protect their fisheries resources not only for their livelihood, but more importantly for the future generation. The CFs felt it is their responsibility to enforce pertinent laws to help reduce conflict, which the CMs (67%) and PSs (99%) agreed (Table 4.6). Both groups of respondents (CMs, 89% and PSs, 98%) likewise agreed that community leaders should take the initiative to resolve the fisheries conflicts (Table 4.6).

Some sector of the community felt quite apprehensive about the capacity of the community to deal with conflicts, primarily those conflicts that involve armed group and powerful people. Confronting these offenders poses a threat to the life of CFs members, since the existing legal framework does not delineate their role and responsibility to act on conflict resolution. This was primarily the reason why 26% of CMs and 1% of PSs were particularly cautious about giving suggestion (Table 4.6). Yet another sector felt that if community the does this, it would lessen the benefits they were poised to get from fisheries management.

It is a must that all stakeholders and institutions join with the community in managing fisheries conflicts, a decentralization effort that could help improve and make the CFs effective. Even an individual CF member can do something to help resolve conflicts, which 78% of CMs and 33% PSs agreed (Table 4.6). Individual members could likewise join any social group or join force with other members of the community to help reduce conflicts, or so 92% of CMs and 95% PSs agreed (Table 4.6).

Fisheries conflicts, therefore, need to be resolved through multistakeholder participation. Communication amongst stakeholders is important along this line. Communication should pervade at all levels; specifically, the best communication strategies should be implemented at the level close to the areas in conflict. At the study sites, the most ideal strategies were organized at the provincial level.

Use of communication can be through such means as phone calls, tri-media (radio, TV, and such print media as newspapers and popular magazines), meetings, seminars, and workshops. Effective use of these channels of communication varies, depending on the capacity and level of stakeholders' literacy level and participation in the communication process. For conflicts involving many stakeholders, communication works best through meetings, seminars and workshops. These allow for a wider participation of involved stakeholders. For the locals, these provide them a feeling of togetherness and encourage them to express themselves freely without any threats from a hostile environment.

The study identified different meetings at different levels to illustrate how communication took place between parties. Some conflicts need to be resolved at the commune level, some at districts, and still others at provincial level. There were suggestions to set up committees for conflicts over the boundary between fishing lots and community fisheries areas.

The Commune Council is responsible for resource management at commune level and, therefore, could be involved in resolving conflicts between fishers and fishers within the commune. Conflicts between fishers and powerful people could be resolved at the commune, district and provincial levels, depending on the capacity of the powerful.

Enabling Better Management of Fisheries Conflicts

Type of Conflict	Conflict Solution	Level of Resolution	Tool Used for Resolution	Actors involved
Conflict between small- and large-scale fishers	Compromise through dialogue in provincial or district meetings facilitated by third independent party, particularly the provincial governor. Set up working mechanism to monitor conflicts and the ground	Provincial level	Maps, decrees, laws. Setting the committee to follow up on the issues	All stakeholders including the fishers, larger-scale fishing operators, Commune Council, provincial fisheries and provincial authorities
Conflict between fishers	Organizing meetings between fishers facilitated by trusted independent party, particularly commune council in collaboration with fisheries officials	Commune level	Laws, legal framework, punishment or education or awareness, making agreement against the problem	Commune Council, fisheries officers from sangkat, local fishers and the police
Conflict between fishers and powerful people	Organizing meetings at district level, facilitated by district or provincial authorities in collaboration with the Provincial Fisheries Department	This problem could be resolved at commune, district and provincial levels.	Maps of the areas. Organizing the CF in the areas to avoid individual control. Legal framework	Fishers, Commune Council, fisheries people, provincial authorities, police and NGOs
Conflict between fishers and fisheries officials	Organizing between fishers facilitated by third trusted, independent and influential party, such as district and provincial governors in collaboration with the Provincial Fisheries Department. Organize meetings regularly	Provincial level	Decentralized management of CF areas to community. Defining clear roles and responsibilities under the Fisheries Law and Decrees for CF. Enforcing the Fisheries Law. Setting the provincial committee to investigate the issues.	Provincial authority, District and commune councils, police and NGOs
Conflict between fishers and local authorities	Meetings, dialogues or forums facilitated by District or provincial authorities in collaboration with the Provincial Fisheries Department	District and provincial levels	Including in the legal framework roles and responsibilities. Setting a committee to investigate the issues and resolve it if it continued.	Fishers, commune authorities, district, fisheries officials, provincial authorities, police and NGOs
Conflict between fishers and armed group	Meetings or forums organized at any level by government in collaboration with the Provincial Fisheries Department and Provincial Army Group	Commune, district and provincial levels	Legal framework, maps, setting a committee for follow-up if the conflict is serious	Fishers, commune authorities, district, fisheries officials, provincial authorities, police and NGOs

V. Conclusion

Community fisheries in Cambodia are in need of reform, particularly in governance, by instituting appropriate legal framework, putting in place accountability of public officials, and removing barriers to the economic viability of CF management. Communication is crucial in the country's fisheries management and improving the system in support to fisheries conflict management should address consensus-building and conflict-resolution processes.

There are gaps in communication, especially between and amongst stakeholders in fisheries, which make fisheries conflicts remain poorly resolved and recurring. These communication gaps include:

- Miscommunication amongst stakeholders
- Sub-decree/regulations have to be passed
- Weak dissemination of information on regulations/laws from national to local levels, and most fisheries polices on paper only
- No working group nor legal institution in place to coordinate any urgent fishery conflicts or hear complaints/take message from stakeholders on fisheries conflicts
- Fisherfolk/community members so poor has to take interest in improving communication or are not able to communicate with higher government officials
- Centralized management system within the government, allowing for one-way flow and top-down communication only
- Increasing fishers population
- News coverage in fisheries is limited and costly.

Nonetheless, communication amongst various stakeholders is essential in fisheries conflict management, more especially in promoting uptake of research findings both within and outside the areas where the research was conducted. Communication in this context takes much more than sending messages to people: it includes dialogues and negotiations leading to improvements/changes in understanding and perceptions. It is a process that takes place through social and political structures.

Communication is a normal, everyday human activity amongst people within a given social unit or network, such as family, group of friends, or colleagues at work. Communication between organizations, particularly those with different interests, does not happen automatically, and when it does it is not necessarily constructive. Such communication needs to be planned.

There are two tools to help in planning communication. They can be used for both purposes above: in managing fisheries conflicts and in making sure research findings are promoted so that they have a good chance of being taken up by relevant people and organizations.

The mass media can be harnessed for disseminating information on fisheries conflict management. For instance, Pursat Province has its TV and Radio stations that carry programmes on various development activities. The public is made aware of such programmes have become familiar with them. Radio, considerably a cheaper and more accessible medium, reaches the poor community members in far-flung villages. A live radio broadcast that invites listeners' comments or any messages, for that matter, would be a great help in feeding these messages back to policy-makers and relevant institutions. One classic example was when a listener from Pursat called a radio broadcast live, using his mobile phone, complaining about his village's very bad road condition. The call prompted the governor to appoint officers to attend to the problem until the bad road was repaired.

Another good example is the radio and TV coverage of provincial and national workshops, an effective means to convey messages developed from research findings. Workshops bring together policy-makers, government officers and relevant institutions to meet with researchers and communities. Workshops and some such activities, like regular meetings, are good venues

for communicating and fostering better understanding of research findings, issues, etc. In Pursat, there is a three-month regular meeting to update on all development projects. The meeting soon became a forum and an opportunity for local communities and authorities to mutually understand community issues and concerns.

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Appendixes

Table 4.2 Understanding Conflicts from Conflict Managers and Primary Stakeholders

	Conflict Manager			Primary Stakeholder			Total
	Agree	Disagree	Neutral	Agree	Disagree	Neutral	
1. Too many people trying to catch a limited quantity of fish is not a major cause of fisheries conflicts	22	4	1	111	0	0	111
2. The people's job is fishing and know have no choice other than fishing, so it causes fisheries conflict	12	14	1	103	8	0	111
3. Fisheries conflicts lead to serious hardship for fishing families	12	14	1	87	18	6	111
4. Fisheries conflicts reduces fishers' daily fishing activity	17	8	2	94	16	1	111
5. If government agencies did their job properly, there would be very few conflicts over fisheries	24	2	1	110	1	0	111
6. Without supporting from the community fisheries, the government could not reduce fisheries conflict effectively	21	3	3	111	0	0	111

Source: Field Survey, 2004-2005

Table 4.3 Manageability of Conflicts

	Conflict Manager			Primary Stakeholder			Total
	Agree	Disagree	Neutral	Agree	Disagree	Neutral	
Powerful groups will always be able to win their conflicts over less powerful groups of fishers	22	4	1	97	14	0	111
Community fisheries could not manage fisheries conflict by themselves	15	9	3	100	11	0	111
All fisheries conflicts can be resolved	8	18	1	91	16	4	111
It's only the government official who could manage fisheries conflict	11	15	1	85	21	5	111

Source: Field Survey, 2004-2005

Table 4.4 Prerequisites for Resolution

	Conflict Manager			Primary Stakeholder			Total
	Agree	Disagree	Neutral	Agree	Disagree	Neutral	
If all parties are willing to compromise, solutions to conflict can be found	25	0	2	105	1	5	111
Conflict managers can initiate solving fisheries conflict	26	0	1	110	0	1	111
All parties need to understand existing policies and regulations before conflict resolution process can begin	17	9	1	110	1	0	111
Community fisheries require government influence to contribute to reduction of fisheries conflicts	24	1	2	102	6	3	111
Better understanding of one another's needs and points of view will make it easier to resolve conflicts	15	11	1	89	22	0	111
Common understanding on the use of natural resources	25	1	1	109	2	0	111

	Conflict Manager			Primary Stakeholder		
	Agree	Disagree	Total	Agree	Disagree	Total
can sufficiently contribute to resolving fisheries conflicts						

Source: Field Survey, 2004-2005

Table 4.5 Process of resolution

	Conflict Manager			Primary Stakeholder		
	Agree	Disagree	Total	Agree	Disagree	Total
Conflicts amongst fishers cannot be resolved by village leaders bringing the parties together to discuss the issues	7	26%	27	65	31	111
Fisheries conflicts can be resolved more effectively by building the capacity of community fishers	19	70%	27	108	1	111
Conflicts can be resolved easily by strict enforcement of regulations	23	85%	27	109	0	111
The by-laws of community fisheries can be respected by stakeholders along with community fisheries	20	74%	27	110	0	111
All conflicts can be resolved through dialogue and negotiation	21	78%	27	109	1	111
Fisheries conflicts caused by not sure the fishing ground and encroach fishing from the outside fisher to community fisheries ground can be resolved by chatting and consensus building	23	85%	27	106	5	111

Source: Field Survey, 2004-2005

Table 4.6 Responsibility for resolution

	Conflict Manager			Primary Stakeholder		
	Agree	Disagree	Total	Agree	Disagree	Total
Government is the only agency that can manage conflicts	14	52%	27	92	17	111
Local community such as community fisheries, associations and other groups which organized unofficially can also help to manage the fishery conflicts	18	67%	27	110	1	111
Fishers and their leaders should take the initiative to resolve disputes and conflicts	26	96%	27	111	0	111
All stakeholder and institution also jointed to manage fishery conflicts	24	89%	27	109	0	111
I can not do anything to help to resolve conflicts over fisheries	5	18%	27	72	37	111
I have ability to joint in social work which a part that can support to resolve a fishery conflicts	25	92%	27	105	0	111

Source: Field Survey, 2004-2005