

**Community Fisheries, Networks, and Federations: Taking Stock of Community-based Natural Resource Management in Cambodia**

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**Abstract**

Fisheries are vital to Cambodia as a nation and for her people. Supplying nearly 75% of the animal protein consumed by Cambodians, fish provide an important safety net by supplementing diets, providing income, and creating employment. It is estimated that few fisheries in the world have as great an impact on a nation's populace as that of Cambodia's inland fisheries.

Knowing fisheries are critical to its national security, the Cambodian government has embraced community based natural resource management (CBNRM) as a means to ensure sustainability of the resource and livelihoods. Decentralization, however, is a long process, and the road to meaningful fisheries reform is never smooth nor found without difficulties. In 2000, the government declared 56% of fishing lots, a commercial system of privatized fishing areas in place since the colonial era, to belong to communities. Conflicts between subsistence fishers and commercial fishers, often severe, continue, though illegal fishing has in some areas been reduced. At the level of State legislation, the decentralization process began with the first passage of the Royal Decree continued with the final Sub decree on establishing Community Fisheries (promulgated in 2000 and officially passed in 2004), and ends with the passage of the Sub decree on Community Fisheries Management in June of 2005. With these legal reforms in place, the decentralization process now has the legal means to enable co-management of inland fisheries in many areas of the country.

404 Community Fisheries (CF) have been set up at the village level throughout the country. These CFs primarily worked on enforcement and educating village members about sustainable fishing practices in the beginning. Now with the Communities Fisheries Management Sub decree passed, CF are now beginning to form Community Fisheries Plans for reaching their goal of fisheries resource conservation and management.

This paper presents background to the process of decentralization of fisheries management in Cambodia with discussion focusing on the most recent steps taken in the process: the formation of fisheries networks and federations. It is believed that fisheries networks will strengthen Community Fisheries' ability to effectively co-manage fisheries at the local level.

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## 1. Introduction

Fisheries provide food security, income, and employment for a large proportion of the rural Cambodian population. Yet, many of the fishing areas have historically been tied up into commercial lots<sup>1</sup>, which, though they provide some employment, result in limiting where local people can fish for subsistence. Reducing poverty is a goal of the government. The Royal Government also strives for, among other things, social equity, partnership with all stakeholders, and fisheries reform (Hun Sen 2004). Knowing that fisheries are vital to “the lives of millions of Cambodians in terms of food, income, and livelihoods” (Hun Sen 2004: 13), in late 2000, the Prime Minister ordered the Ministry of Agriculture, Forestry and Fisheries (MAFF) to reform the fishing lot system which resulted in a reduction lost commercial lots of about 56%. The objective of reducing the number and size of fishing lots was to ease tensions and mitigate conflicts between different scales of fishery in the fishing sector. Fisheries sector experts frequently recommend the establishment of community-based natural resource management institutions (CBNRM) as a means to mitigate fisheries conflicts. MAFF responded by setting up the CFDO (Community Fisheries Development Office) and beginning the process of starting Community Fisheries (CFs) in local villages. As of early 2006, there were 440 Community Fisheries<sup>2</sup> in Cambodia.

Community Fisheries are local level groups which have some management and enforcement roles to play in sustaining their fisheries resources. Many of the difficult issues they face which affect the sustainability of the fisheries resources, however, occur at more than just the local level. Illegal fishers, migrating aquatic resources, and lack of power to actually enforce rules and regulations ... all mean that other, higher scales also come into play.

With this in mind, research was undertaken to investigate the different levels CFs operate on, and have contacts with, in order to scale up Community Fisheries to other levels. Though scaling up has begun in some areas with outside help, Community Fisheries face numerous difficulties before scaling up can occur; this paper presents a discussion of where CFs are today: resource distribution remains inequitable, degradation continues, and fisheries stocks are declining ... all issues which must be addressed for CBNRM to be truly successful in Cambodia. Ultimately, these issues all connect back to two underlying and connected threads: poverty and power.

Power is an important issue, especially not only because of the issue in general around the world, but also due to cultural understandings of power in Cambodia. “Big” and powerful people, most likely men, are expected to act in certain, “corrupted” ways. Taking kick-backs and bribes, often viewed as corruption in many parts of the world, is precisely how powerful men are expected to act in Cambodia. Villagers may not like it, and they say so, nevertheless, such behaviour is expected and tolerated. Issues of power, highlight the importance of governance. Agrawal’s (2001) review of the common property literature pointed governance as one of the variables that influence common property management efforts. Effective co-management can not truly take place until effective governance structures are in place. In Cambodia, “it may have been possible to open fisheries to community *access* by decree alone, but the work of building community based *management* is a much larger challenge” (Ratner 2006).

## 2. Background

The ‘traditional’ lot system (expanded in Section 3) consisted of lots, temporary sections of floodplain, riverine, and lake areas located around the Great Lake and the Tonle Sap, Tonle Bassac, and Mekong Rivers. Some Community Fisheries have been implemented in the North of Cambodia, but these are still quite few compared to those in other areas of the country.

Nevertheless, CFs extend throughout the country. Consequently, a general description of Cambodian fisheries is appropriate to this discussion.

Fisheries are central to Cambodian culture and livelihoods, especially the rural poor. The inland fisheries are among the largest and most significant in the world, based on hundreds of species using at least 150 different kinds of gear. The catch of fish is estimated at approximately 400,000 tonnes per year with the harvest of other aquatic animals estimated at around 60,000 tonnes. Fish and other aquatic animals account for nearly 80% of Cambodian people's animal protein; no other food could easily replace fish in the diet of Cambodians (Hortle, K.G., S. Lieng and J. Valbo-Jorgensen 2004)

Most rural Cambodians fish for some amount of time each year on either land they own, in nearby water bodies, flooded forests or floodplain areas; harvests from rice fields are extremely important for rural families<sup>3</sup>. Anyone can fish in small scale fisheries and licenses are not required. Small scale includes small gears such as castnets, dipnets, small gillnets, and traps. It is illegal to fish in lots during the dry season (October to May). Women and children commonly fish in addition to men in this subsistence fishery (Hortle, K.G., S. Lieng and J. Valbo-Jorgensen 2004). Middle scale fisheries are based on larger gears and require a license; usually men take part in this activity. Commercial fisheries are based on fishing lots; areas are auctioned every two years. Large scale fishing activity, allowed in the open season (usually October through May) is only permitted in fishing lots.

#### **A. The fishery and local livelihoods**

In the Inland areas, fisheries are key for subsistence in rural Cambodia. Most local people interviewed agreed that fishery has generally improved since commercial lots were released to communities —overall, and only given a longer term perspective. Many pointed out that there was an initial decline, perhaps due to overeager commercial fishers not wanting to lose the resources, combined with subsistence fishers from outside who said they heard the lots were now for everyone in the country (open access). Now, however there is a general equilibrium in some areas (though certainly not all, or even in most).

Illegal fishing is remains a concern, however, and in most areas, a problem. The majority of illegal fishing taking place is in the form of mosquito seine nets, and as artificial reefs. In some areas, poisons and electro-fishing gear were also used. Much of the illegal fishing is for subsistence. Some illegal activity takes place for the income it provides when they supply fry for aquaculture operations (*ie* snakehead culture).

#### **B. Main threats to the fisheries**

There are a great number of difficult issues facing Community Fisheries today as they work to sustainably manage their fisheries. CF members viewed the most important problems as:

1. illegal fishing gears still produced
2. illegal fishers realize CF has no real power to stop them
3. Department of Fisheries needs to stop ALL illegal fishers, *including lot owners!*

In reflecting on both the view of the CF members at the local level, and the big picture, the underlying threats to include poverty (lack of capacity), and lack of power (empowerment) of the CF. The power issue, cited even by CF committee members themselves, is an issue of governance. These CF are advocated for, and set up by the government (and FAO and NGOs) as a form of Community Based Natural Resource Management – co-management. Yet, co-management requires a partnership between the resource users and the government which

includes sharing responsibility and authority (add reference). Co-management using this definition can only work if community members are fully empowered (ie can truly manage such as enforcement) and have the capacity (knowledge, financial resources) to harvest, use, conserve and manage their resources.

1). Poverty causes much of the illegal fishing which CFs are unable to stop; poverty and culture encourage district authorities (commune council, police, provincial fisheries officers) to accept bribes, and kick-backs from illegal fishers. Also, some villagers fish illegally not necessarily for subsistence, but to earn income in providing feed for cultured predator species (such as snakehead). The Department of Fisheries even noted that there is a “widespread perception that corruption is leading to the protection of many of those involved in illegal and destructive fishing that is threatening the sustainability of the fisheries” (CFDO 2004: 60).

Connected with poverty is the issue of capacity. In many areas, community members still lack the knowledge (of their rights and responsibilities and the laws and subdecrees), communication (with of CFs and others), and financial means (inability to patrol, travel to other CFs, etc) to manage their resources.

2). The second issue of importance is the CFs lack of power<sup>4</sup>. Until CFs are able to stop illegal fishing (either without fear of retribution or without other authorities allowing the rule breakers to go), the CFs will not be able to effectively manage and protect their fisheries resources. The “Sub Decree on Community Fisheries” (passed 2005) allows CFs to make management plans, set aside conservation zones, and aid in enforcement, but they do not have full, independent enforcement powers. Further, the practical reality is that the formation of many of these CFs is driven by external groups (government, donor, and NGO), and consequently face being dependent and unsustainable. Empowerment is therefore vitally important.

When considering power, it is also important to take note of local politics. There were several communities where members complained of lack of response of the district authority to illegal fishing; in some instances “corruption” may have been involved, but in at least one instance it appeared to the researchers that politics – people were members of different political parties-- played a role.

### **3. Methodology**

Research<sup>5</sup> was undertaken over a 12 month period from March 2005 through February 2006. An extensive review of the grey and published literature available on Community Fisheries was first examined. Following this, individual interviews were conducted with members of governmental staff in Phnom Penh (IFReDI, DoF, CFDO), as well as in the provinces (Stung Treng, Siem Reap, Kampong Chhnang). Focus Groups and individual interviews were conducted with Community Fishery, Community Fishery Committee, Community Fishery Federation Committee, and Commune Council members, as well as with Village heads (Kandal, Kampong Cham, and Kampong Chhnang Provinces). In total, 8 villages were visited with representatives of at least 7 additional villages in attendance. NGO and UNDP/FAO staff were also interviewed (3). Research assistance and interpretation was provided by IFReDI and Cambodian DoF (MRC MRF Project) staff.

### **4. The Cambodian Fishing Lot System**

The formation of Community Fisheries as a management group is vital for understanding resources and livelihoods in Cambodia. Consequently, the break-up of the fishing lot system, from whence they sprang, is key for understanding the process and issues at stake. It is important to keep in mind the fact that Community Fisheries are extremely diverse, both in terms of local, natural environment, as well as in terms of the institutional help they received when first

organised; this diversity limits the amount of generalisation that can take place when discussing CFs. This section presents a brief overview of the background of the Community Fisheries and history of the lots system in Cambodia.<sup>2</sup>

The commercial lot system was based upon a system begun during the reign of King Norodom (1863-1897), whereby he leased fishing rights to certain areas. This practice was continued by French colonial administrators. In this system, lots, areas where commercial fishing is allowed to take place, are auctioned every two years. Large scale fishing gears are only permitted in these areas, and only during the open season. Some examples of commercial gears include dais, fences with traps, and barrages. Barrages are gears that block a stream and direct fish into traps. There are some obvious benefits to continuing the lot system for the government of Cambodia, the most clear being the revenue for the government. The lots remaining today provide revenue of approximately \$2 million per year (1998) from 4, 175 km<sup>2</sup> of fishing territory (Hortle, Lieng, and Valbo-Joregensen 2004). This is down from 9, 537 km<sup>2</sup>, with the 56% difference released for public access by a decree from the Prime Minister in late 2000. The lot system, however, tends to favour the rich and powerful. It does provide some income for those who work for the lot owner, and some individuals are able to sublease portions of the lot. Some also argue that the lot system has the potential for co-management with leasees, who have an incentive to conserve fish within the lot. In some instances, leasees gain access to capital for boats and fishing gear, and for buying processing and transport equipment. Those who argue this, however, do not have a clear understanding of common property systems and co-management; very few are truly “open access” and actually have rules followed by locals. Thus, a lots system with leasees should have no advantage over Community Fisheries in terms of sustainable management, provided, of course, that the governance structure is set up and the management group is able to enforce its regulations.

There were difficulties with the commercial lot system, however, as evidenced by the sudden release of fishing lots to the public. Cambodians are very poor; about 36% of them live below the poverty line of \$14 per month, despite the wealth of natural resources of the country (add citation). Conflicts between the fishing sectors (small scale versus large scale) over access to resources were, and still are, sometimes violent and serious. The growing population in the flood plain areas increased pressure on this lot system throughout the 1990s.

There is a general view among researchers that Cambodian inland fisheries management during the 1990s intensified poverty and brought gains only to a small subset of influential politicians and bureaucrats with little regard to the social or environmental consequences (Tarr, 2002, Degen 2000; Kurien, Nam, and Onn 2006). “*The location of the lots, the presence of communities within their territory and the very productive nature of these systems made them breeding grounds not only for fish but also for social conflict*” (Kurien, Nam, and Onn 2006). Lot owners often subleased sections to quickly re-gain the money they paid to the government; they also made huge investments into their trapping systems, thus they often used private guards with weapons to protect their investment. During this time, approximately 80 percent of the entire dry season lakeshore of the Great Lake was under the control of 18 fishing lots (Evans, 2002; Kurien, Nam, and Onn 2006).

Though conflicts had existed for a number of years, between 1995 and 1999, conflicts over fishing rights escalated greatly with innumerable protests (Kurien, Nam, and Onn 2006). Dissent was possible because the Constitution in force after the 1993 elections explicitly spelt out a range

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<sup>2</sup> Readers are encouraged to see others, Kurien, Nam, and Onn (2006) and Baran (2005) for greater detail.

of civil and political rights that had previously been unknown in Cambodia. Consequently, “*the scope of civil society organisations in the fields of human rights, gender relations, development and environment increased dramatically. The international donor community also gave legitimacy to their activities seeking greater participation of people in development processes. Encouraged by the civil society organisations, fishing communities gained the confidence to speak out for their human rights and specifically against the injustices of the authorities and the owners of the fishing lots (Ratner, 2004)*” (Kurien, Nam, and Onn 2006). Numerous newspaper articles attest to this and investigations by civil society organizations highlight the pervasiveness of the issues:

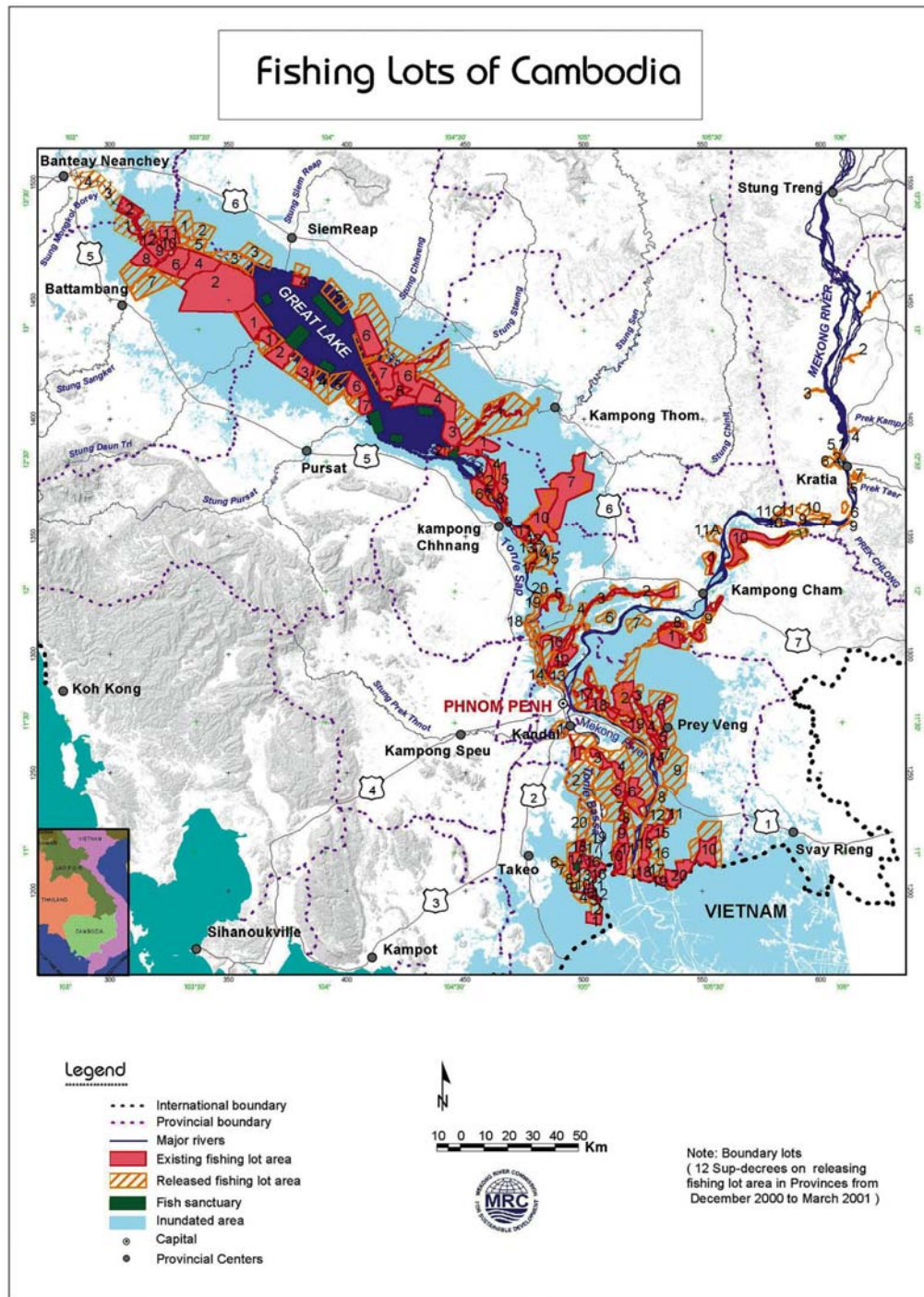
"Conflict has been predicated on the competing claims on the fisheries resource that have arisen from commercial interests, a growing subsistence populace, illegal fishing and demands for agricultural land, water and firewood. Conflict has occurred between fishing lot employees, local authorities, military, police and local communities and has been visible as protests, petitions, 'fish-ins', arrests and detention for forced labour, confiscations of fishing gear and livestock (which have particularly harsh repercussions on the poorest fishers), injuries, serious human rights abuses, and reported killings of fishermen and fisheries officers" (FACT/EJF, 2002: 24 cited in Kurien, Nam, and Onn 2006).

The opposition to the fishing lot system provided an opportunity for a new initiative: fisheries co-management—efforts by FAO/UN began in several parts of Cambodia between 1994 and 1998 (Ly Vuthy, 2005). The efforts initiated at this time were partly in response to the larger international movement towards **community based natural resource management** (CBNRM) and highlighted as a socially and environmentally sustainable way of utilizing and managing natural resources. The CBNRM approach gained favor because it instilled greater local level responsibility. There were no efforts at that time to make it a national initiative.

Thus, it was against this backdrop of social conflict that the current Prime Minister Hun Sen issued a proclamation on 'anarchy in fisheries' (RGC, 1999). A year later, while visiting flood victims in Siem Reap Province, he made an announcement releasing 8000 hectares of fishing lot area to local communities for community management. At this time he also promised to remove corrupt officers who did not support the people's cause. At that point in time, there were 239 fishing lots covering over one million hectares and yielding a concession value to the government of about US \$ 2 million (Kurien, Nam, and Onn 2006). *However, released lots included only the smaller ones – with values estimated at less than 30 million Riel (about US \$7700 each) – and not the most productive ones* (Cacaud et al, 2003) Social inequity continues.

When the Community Fisheries were first being formed, many lot owners were, understandably, hostile to the idea of Community Fisheries and many people complain about areas being “fished out” before they were handed over to the public. Also, villagers have reported that lot owners would confiscate gear and prevent local villagers from fishing in or even near lots, even when legally entitled to do so. In some areas, this behaviour has decreased, however, when the lot owner understands that the CF are there for conservation; some have acknowledged that working together decreases illegal fishing and benefits everyone involved. Experiences from other areas in the region suggest that community fisheries management can be effective in conserving fish stocks, if resource ownership is clear and process is supported by the government (Baird and Flaherty, 2005).

Map 1: Fishing lots of Cambodia<sup>3</sup>



**Box 1: Interview and Focus Group Locations—**

**Fishing Lots #13, Kampong Chhnang Province (Organized with CF Federation)**

- Kamleng Phe Village, Kok Panteay Commune, Rolea Boear District
- Community Fisheries Members
- Community Fisheries Committee Members (10 people, 2 women)
- Village head
- Commune Council members

**Fishing Lot #14 (Organized with CF Federation)**

- Ploy Village, Peam Chhok Commune (CFC, CF Federation: 15 people (1 woman)
- Svay PaEm Village, Koh Tkov Commune
- Ton Lee Krav Village, Koh Tkov Commune

e.s.

## 5. Case Study Examples

The bulk of fieldwork took place in Kandal and Kampong Chhnang Provinces (see map 1). These areas are home to CFs formed from previous fishing lots. The main issue these areas share is conflict: conflicts continue in these areas, especially in the lot #18 area of Kandal. They differ, however, in that CF Federations have been formed in Kampong Chhnang. Both share in the poverty and powerlessness discussed in literature and by the people themselves, though to differing degrees. Most interviews concentrated on illegal fishing, the illegal cutting of flooded forests, and the institutions/groups CF members worked with in order to prevent such illegal activities.

### **CFs in Fishing lot #18, Kandal Province**

The CFs in this area are relatively close to Phnom Penh. Only about 20 km outside, roads are good until the ferry crossing. Waiting for the ferry increases time and expense, nevertheless, Phnom Penh's proximity opens up markets for residents of these communities. Especially in the homes nearest the river, houses were made of wooden boards, cattle were numerous, and crops (such as corn) and fish, were being sent to market. In communities further from the river, however, livelihood options were much more limited. One community in particular had no agricultural land and this village relied solely on the fisheries for livelihood. Few homes were made of wooden boards, most made of woven reeds for walls. A community fishery committee member from here was especially vocal about needing to stop the cutting of flooded forest and the problem of "district authorities"<sup>6</sup> who would not come out when asked.

### **CFs in Fishing lots #13 and 14, Kampong Chhnang Province**

These CFs were found along the Tonle Sap River, west of Phnom Penh. These communities were very far (one hour downstream) from the provincial capital of Kampong Chhnang. Livestock was fairly common, though the area is completely inundated during the rainy season. These CFs, along with others, had formed a Community Fisheries Federation with the support and facilitation of NGOs which meet once every 3 months. Though CFC and CFF members complained about illegal fishing and cutting of forests, they were able to address these problems somewhat through the CF Federation.

### ***Poverty***

Statistically-speaking, the Cambodian population is very poor and alternative livelihood options are limited. In most communities, NGOs are working, as well as DoF and MAFF, to increase alternative options. Some programs include, for example, offering livestock; others include credit for starting up new activities – such as small fish hatchery. In all communities visited, CF members asked repeatedly for more credit groups.

The also asked, however for help in stopping illegal fishing.

### ***Power***

Though the scaling issues involved are geographic and institutional in nature, the problems facing CFs cross-cut these items. Ultimately, the issue boils down to one of capacity and empowerment; the financial problems and lack of power are numerous and cross-cutting.

Financial capacity: Both the direct costs, and the opportunity costs, involved in running Community Fisheries are significant. Community Fisheries view themselves as organisations for sustaining their aquatic resources, including reaching this goal through the prevention of illegal fishing. CF Committee members and CF members agreed that patrolling must take place to stop illegal fishing. Yet they do not have the means to patrol often: money is needed for petrol and



boat rentals. They prefer to go in large groups for the safety, but also for the respect they are given. Opportunity costs are seen in the form of lost wages (from fishing or other crops) and in the form of lost goods (most cited examples of retribution taken upon them in the form of damaged boats, pumps, and even the killing of livestock). One CF Federation member mentioned he *would not have joined the CF if [he] could have foreseen what would happen ...* (personal property was destroyed by illegal fishers retaliating against the CFF enforcement of CF territory).

These same problems are seen for meeting with the Commune Council, local district authority, or other CF/CFC members. In those areas where CF Federations are already formed, meetings are subsidized by NGOs, though not as often as they feel is ideal.

Some CFs do fund their patrolling and meeting activities through the sub-lease of CF areas. This is an obvious solution, though officially, such leasing of areas is illegal. Community Fisheries are able to raise funds through other means, such as through entrepreneurship (such as hatchery sales) and in-kind donations (members' time, use of private boats and petrol).

Even when patrolling is successful, however, CFs face the difficult task of having the offender punished; kick backs to police and fishery officers is not uncommon. The offenders both pay to be let off once caught, and pay for advance tip-offs. Sometimes the gear is confiscated and then returned later; other times the offender is fined without the gear being taken away. Consequently, CFs, where successful, often have monetary aid from outside and also from dedicated members who donate their own time and money. The amount available, however, is often limited given their financial situation.

Closely tied with the issue of money is power. In many instances, the complaint of lack of money, is really code for lack of power. Consequently, the cultural notions of power and Cambodian politics can not be overlooked when investigating scaling potential of CFs.

Marschke and Nong (2003: footnote 4) point out that “*‘power’ is an important and particularly-understood concept. It represents those with money, connections, and friends-in-high-places.*” They further note that “*it has been suggested that Cambodian social relations take place within an authoritarian, hierarchical construct (ibid.).*”

There was at least one instance where the politics of the players appeared to affect the way the things played out. The village in question was completely dependent upon fisheries resources for livelihood as they had no dry land during the flooded season. The CF Committee members representing them complained throughout the interview about the Commune Council not helping them when they asked for someone to step in with the illegal fishing problem. The Department of Fisheries fishery officer in charge related that this was probably because the CFC member was a member of an outside political party.

### **Institutions Involved**

Many of the CF members interviewed believed “local/district authorities” were extremely important for them in reaching their goals of sustaining the fishery and stopping illegal fishing. “District authority” includes Commune Councils, District level police, and District mayors. They also found links with national, regional, and international institutions important. In general, they found those institutions with money, power, and capacity building potential as the ones most necessary. They also acknowledged, however, the importance of meeting with others likes

themselves: outside CFs and lot owners for the practical purpose of communication about illegal fishing.

**Table I: Groups/Institutions linked to Community Fisheries**

Local/district authorities	MRC / MRRF	Outside CFs	Banks
Fishery/ Environmental Officer	INGOS	Patrolling Groups	The Court
FACT	District CF Federation	Women's Groups	
NGOs	FACT/ CCF	traders	

CFs have been encouraged to work with the Commune Councils (CCs) for management plans. This is partly because CCs have been mandated by law to protect natural resources of the commune, but also because the CC has a budget which could be used for fisheries management. The connection is tenuous, however. In many cases the CC doesn't understand what their role could be in fisheries management; in others the CC may have other interests taking precedence.

In some areas, CF federations have already been formed. In these situations, NGOs provide support for meetings to take place once every 3 months with members of CFC in attendance. Several CFC members mentioned the desire to meet with other CFs, but lacked the resources to do so on a regular basis.

In other areas, one CF serves multiple villages and is, in effect, a federation "level" though it is only one community fishery (i.e., Chroy Chek reservoir in Kampong Cham Province).

A **Coalition of Cambodian Fishers (CCF)** has been organized and supported by FACT (Fisheries Action Coalition Team) with support by FOS. FACT began a project, "to build a grassroots organization in fisheries" with get financial supported mainly from FOS in 2003. This project is part of the FACT's overall goal of supporting of activities of community representative activists in mobilizing their local people to advocate for themselves. Local community representatives is increasingly understanding the needs of the project support to become a mechanism for organizing local community representatives to counterattack the powerful groups in exploiting the local people's natural resources.

FACT works with the group on capacity building and sees the needs of the project to be continued in organizing local community representatives and to work with them to protect their interests and build up their grassroots organization. The main activities includes building up a Coalition of Cambodian Fishers (CCF) by helping this local organization to be registered with the Ministry of Interior, and put CCF have functioned their secretariat in the following step. These activities target the grassroots areas, complementing to the two-year action plan of FACT (March 2004- March 2005). After March 2005 it is a transitional period to strengthen and functioning the CCF secretariat. Capacity building program for sustaining the organization including programming, staffing and budgeting knowledge are considered the most essential at this time.

FACT has also organized workshops with fishers from throughout the nation (e.g., Stung Treng in 2005). FACT's main mission involves building the capacity of independent community leaders and strengthening grassroots organizations in order for them to advocate to the government and donors on issues that affecting their livelihoods.

The **geographic** scale issues are just as important, but not always clearly understood by local actors (CF members). Most of the emphasis they place on geographic aspects was in terms of stopping illegal fishing activity, either from neighbouring or upland villages. Little discussion took place about large scale issues from much further upstream. This varies greatly, however, according to the CF visited and which CF members were interviewed.

**Table II: Geographic Scale and Community Fisheries**

Village CF	Neighbouring fishing lot	Upland
Local flooded forest	Neighbouring FCZs	
Fishing conservation zone		
Local fishing lot		

## 6. Conclusion

Without a doubt, the capacity and empowerment issues must be addressed for this form of co-management in Cambodian fisheries to be successful. This is something for the long-term, however. In the medium term, the scaling up of Community Fisheries has some potential for aiding in sustainable fisheries management. Currently, some Community Fisheries have been scaled up through the formation of CF Federations. Federations involve the linking of local CFs (all CFs at the village level in a district) have been formed in some parts of the country. Their number is limited, however, and federations face the same capacity and empowerment issues as CFs.

Strengthening the link between CFs and Commune Councils for improving fisheries management has potential. CCs have a budget of their own, solving part of the financial capacity problem. A portion of this budget could be allocated to CFs as a part of their mandate to *protect and conserve the environment and natural resources*. In this regard, however, further capacity building (knowledge and communication) of CC and CF members is needed to educate them of this potential.

It is hypothesized that the scaling up of Community Fisheries has potential for increasing the success of CFs. As touched upon above, in some areas, it has already begun. Resources, both human and monetary, are needed, however. Human resources can be met through further capacity building; monetary resources can be partly met through individuals and hopefully mostly met through Commune Council plans. Ideally, CFs could also generate their own funds, such as through fining illegal fishers or leasing CF areas. This can not be easily done under the current Sub-decree on Community Fisheries. Though only passed in 2005, a reform of this sub-decree which provides for a broader definition of subsistence and allows for CF to derive some income in the manner suggested above are recommended.

It is unfortunate that recommendations that CFs be given true enforcement power were not incorporated into the law. Though some argue that enforcement by locals should not take place (check Hartmann 1998), there have been instances where co-management groups (ie Japanese Fishing Cooperatives) where members have helped with enforcement. It is also unfortunate that subsistence is taken literally to mean consume only, rather than allowing CFs members to earn more income from their resources, thereby providing more potential for alleviating their poverty.

Forming CF was an important step in providing locals with the ability to co-manage local resources with the national government. For it to be successful, however, they must be given the power to actually manage the fisheries.

**Commercial gear, lot #14, Kamong Chhnang Province**

Boy loading smoked fish, Siem Reap Province

Girl rowing boat, Lot #14, Kampong Chhnang

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1. The lot system was initially set up as a means to raise income for the Cambodian government.

<sup>2</sup> Many, though not all, of these CFs are formed in areas where commercial fishing lots were released.

<sup>3</sup> “Farmer” versus “fisher” categories are not useful in Cambodian Inland areas; most people fish during some time of the year.

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<sup>4</sup> Admittedly, this is a very simplistic statement which could be said of many places, and many instances, in the world. Nevertheless, informants were very clear about their lack of power and needing to rely on the district authority for arresting illegal fishers and stopping illegal activity.

<sup>5</sup> Research was undertaken with a small grant from the Challenge Program on Water and Food ([www.waterforfood.org](http://www.waterforfood.org)).

<sup>6</sup> The term 'district authority' was used loosely by informants to include commune council, commune chief, district head, and district police.