Life, Fish and Mangroves

Melissa Marschke

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Last night a trawler destroyed my gill nets. I was quite upset but he told me that I did not have a light on my boat so it was my fault that he could not see me. I reminded him that trawling in the bay is against the law and that I cannot afford a light for my boat. He was sympathetic but did not offer to do anything. I need to find money to get a light for when I fish, although I am not sure this will help in all situations. Trawlers pay no attention to us, the poor fishers (Sok 2004).

Six years later . . .

I now have a light on my boat, so that helps although boats still run over my nets. This is because there is more boating activity in this area now—trawls, sand barges and bigger ships. I have to think carefully about where to set my nets. I try to pick areas that trawls avoid but are too shallow for bigger ships. I usually guess correctly, but not always (Sok 2010).

This type of governance challenge, where one fisher or boat driver inadvertently ruins the fishing gear of a fisher, is not easy to solve. Initially (in 2004) Sok thought that a light would be helpful for night fishing, even though orange-red buoys did indicate where Sok had set his nets. In the initial case, Sok
had set his nets at dusk and then proceeded to sleep on his boat as a way to save on fuel costs and to scare off potential thieves. Sok was asleep when he heard a boat driving close to his. According to Sok, the trawl fisher had not been paying attention but quickly blamed him for not having a light on his boat as a way to indicate to him that he had set his nets in that particular area. As such, Sok was out of luck and needed to replace his gill nets and, eventually, also to buy a light for his boat (which he had bought in 2006). Having a light has helped somewhat but still does not prevent boats from running over his gill nets. This is because in the last six years the situation in these fishing grounds has changed: these fishing grounds are now also used as a transportation route for barges and ships.

While Sok sometimes fishes in and around Koh Sralao village, he also fishes in the popular Chrouy Pros fishing grounds about 10 km away from Koh Sralao village. Fishers from a handful of villages (including Koh Sralao fishers) along with migrant fishers use this sheltered, shallow-water, nutrient-rich bay since it is particularly rich in aquatic life. With so many people drawing on these natural resources, conflicts are bound to be rife. Two issues are particularly contentious: conflicts

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17 Enclosed on three sides by mangrove estuaries (dominated by Rhizophora spp.), Chrouy Pros Bay is bordered on its seaward side by Koh Kong Island. Two relatively narrow channels on either side of the island provide access to the open sea. Aquatic species include grouper fish (Epinephelus tauvina and Epinephelus awoara), crabs (Portunidae callinectes, Portunidae syllica, commonly known as swimming crab and mangrove mud crab) and shrimp (Penaeidae penaeus, Penaeidae metapenaeus and Penaeus monodon, commonly known as giant tiger prawn or black tiger shrimp). Seagrass species are particularly abundant in this area (Halodule uninervis is the dominant species; Halophila decipiens and Halophila beccarii are also found) (Bock 2006). This ecosystem is important from a livelihood perspective; moreover it provides a critical nutrient source and is an important migration channel for many aquatic species. Part of these fishing grounds lie within two protected areas (Peam Krasaop Wildlife Sanctuary; Botom Sakor National Park) and within a Ramsar site (Ramsar sites are wetlands of ecological significance).
between resource users using different fishing gear and sand mining in and around local fishing grounds. These two issues cannot be solved by a single resource management committee since the activities occur throughout the shallow-water bay. Even though Chrouy Pros Bay falls under the jurisdiction of three resource management committees, villagers cannot handle these larger-scale conflicts nor can they confront businesses that are granted permits in the capital, Phnom Penh. As such, controversial issues occurring in de facto open-access spaces used by many fishers and other resource users are not easily solved.

Chapter 5 considers resource governance within local fishing grounds, moving beyond the village as a unit of analysis. I carefully examine how two decentralization processes designed to support local governance are used to solve specific fishing-related conflicts. Both the Sub-decree on Community Fisheries and the Law on Commune Administration are examples of policies whose uptake in southwestern Cambodia are partial at best. Although these two policies are not always used as imagined, or at all, this can have both positive and negative implications in terms of resource governance. I then turn to an examination of sand mining, a case in which no policy process appears to be working on behalf of local people. These examples illustrate how formal policies may be used or avoided, and how informal policies often guide everyday practice.

DEALING WITH FISHERIES CONFLICTS

Let me carefully examine the issue of conflicts between fishers using different gear types. Chrouy Pros Bay is a highly productive, shallow-water, brackish ecosystem that fishers and other resource users rely upon. A major source of tension is between fishers using trawls, which are illegal in shallow-water areas according to the Fisheries Law, and fishers using fishing
gear such as gill nets or crab traps. Trawls are nonselective in terms of what they catch and can wreak havoc upon the sea bottom, but, more than this, they also run over traps and nets. The destruction of fishing gear creates a real stress for those setting nets or traps in these fishing grounds. This tension is also illustrative of a power dynamic: fishers who use trawls rely on larger boats than fishers using traps or nets. It tends to be richer villagers who can afford trawls. These tensions are relatively recent since fishers operating trawls only moved into this shallow bay area with the recent increase in foreign vessels found in Cambodia’s offshore waters. As more fishers began accessing the same fishing grounds, significant fisheries-related conflicts have emerged.

How, then, have fishers, village management committees, and other concerned actors attempted to deal with specific fisheries conflicts? To explore this question I examine how actors have turned to formal policy processes in an attempt to solve such conflicts, and how certain conflicts were only solved when Koh Kong’s provincial governor signalled for the creative adaption of existing policies.

Through Fishing Policy

Within the Community Fisheries Sub-decree (which applies to a handful of villages living around Chrouy Pros Bay) and the Protected Areas Sub-decree (which applies to Koh Sralao), illegal activities such as wildlife hunting, poaching and dynamite fishing are listed along with an explanation of which fishing gear is allowed where. Trawling in shallow waters (less than 20 m), for example, is illegal. For committee-related patrolling activities it is mandated that committee members carry out patrols with a police officer, a technical officer (i.e., a representative from any given technical department) or a park ranger (for patrols taking place within protected areas). Guidelines for
the procedure involved in apprehending someone are also found within such policies.

Patrolling is something that potentially prevents conflicts or deals with existing conflicts in a relatively swift, timely manner. This being said, it is not easy to do in Chrouy Pros Bay. This is a 30 km² expanse, attracting a range of fishing boats including larger boats that sometimes tuck into the bay area when the seas are rough. It is too large to manage by village patrolling efforts alone, and even joint village patrols (between resource management committees) are not easy to coordinate or carry out. Things are further complicated by jurisdictional boundaries since several of the villages in and around Chrouy Pros Bay fall under the jurisdiction of the Fisheries Administration, which does not provide “fish rangers,” unlike the Ministry of Environment with its park rangers. In addition to support from a technical department, patrolling success requires the support of local police and strong local leadership. Somehow this is not happening in a very consistent manner within Chrouy Pros Bay.

All three villages with management committees in this area agree that there is a need for patrolling in the bay area, and rules pertaining to trawls fishing in shallow-water areas need to be enforced. The challenge is getting support from technical departments—the tip of Chrouy Pros Bay falls under Ministry of Environment jurisdiction and the rest of Chrouy Pros Bay falls within the Fisheries Administration. As such, Koh Sralao villagers, along with the park rangers, tend to patrol near their village and the tip of Chrouy Pros Bay (see Figure I in Prologue), whereas the two other villages (Koh Kapik and Chrouy Pros) are expected to cover other parts of the bay. These two villages require the support of either local police or Fisheries Administration staff to do their patrols; unfortunately they face a serious challenge in getting these stakeholders to approve of, or engage in, their patrolling efforts. And, as was
described in Chapter 4, even Koh Sralao’s patrolling efforts ebb and flow, and they are a relatively well-functioning committee with decent technical support.

The following excerpts are taken from a discussion with a provincial fisheries officer about how to better manage Chrouy Pros Bay. The fisheries officer is explaining what the rules are, in terms of local fisheries management, and what has been happening in Chrouy Pros village (one of the two other villages with a resource management committee in the area, besides Koh Sralao), where fishers are struggling to get support for their patrolling efforts.

The provincial Fisheries Administration carries out patrolling activities, although we have a significant area to cover and a limited budget. If a local fisheries committee wants to patrol their fishing area then a member of the Commune Police needs to join. For example, in Chrouy Pros village, the Commune Chief of Police issued an order stating that only when a commune police officer accompanies the committee on a patrol will the police take any responsibility should a conflict occur. Local police officers need to tell their Chief of Police whenever they go out to patrol with the committee.

I have had many complaints from the committee in Chrouy Pros village about the Chief of Police in their area. In their case, the committee needs the approval of this local chief. A few months ago villagers reported to the committee that there were trawl fishers fishing in their fishing grounds. The committee wanted to initiate a patrol and went to the police to ask them to join in. The Chief of Police was away from the village that day, although several other police offers were around. They invited these officers to join in and one officer agreed. The patrol itself was uneventful and three push nets were caught and fined according to community bi-laws.

When the Chief of Police returned to the area and heard about the patrol he was very angry. He introduced an administrative penalty by taking the police officer’s gun and criticizing him publicly. Although committee members were upset because this officer had sacrificed his
time to join in the fisheries patrol, they could not challenge the Chief of Police. The officer himself was quite upset and resigned from the police force, deciding to do police work in another province instead.

The committee then came to see me here in the provincial office as they felt that this action was unfair. Also, the committee told me that they felt that the Chief of Police was supporting illegal activities. Apparently whenever the committee caught illegal fishers these fishers claimed that they pay 50 B [US$ 1.50] per boat to a money collector which is meant to enable them to continue their illegal fishing. The committee wants us, the provincial Fisheries Administration, to do something.

However when the committee does not follow the approved regulations, it makes it hard for me to help them. They are supposed to patrol with a police officer, who can carry a gun, and then inform me about any confiscated gear. There are now many push nets and trawls since the committee generally patrols without the cooperation of the police. This leads to bigger problems since many trawl fishers know that the police are not joining in with the patrols and, because of this, the Fisheries Administration cannot do anything once people are caught.

—Excerpts from an interview with a provincial fisheries officer, Koh Kong province, 2006

Chrouy Pros’s resource management committee faces a Catch-22. The police in their area are not interested in working with them, and the provincial Department of Fisheries insists that the committee follow the regulations outlined in the Community Fisheries Sub-decree, which requires a police officer or a technical officer to patrol with a committee. The Department of Fisheries claims to be chronically under-resourced (they make a point here) and cannot consistently send a technical officer out to this area, over 30 km from the provincial town. When the village committee takes matters into its own hands, no government authority appears willing to support them if they have deviated slightly from official procedures.
The irony of all this is that trawling in the shallow waters of Chrouy Pros Bay—the main activity that the committee is trying to stop—is illegal according to the 1987 and 2006 Fisheries Law. This example is illustrative of how policy can either be ignored or be followed so carefully so as to make it difficult for fishers to get the support they need to enact specific resource management activities.

Members of resource management committees (focusing on fisheries, forestry or protected areas) cannot carry guns, which is why they need the support of local police officers to patrol their waters. It is risky to patrol without a gun. However, as this example illustrates, getting such support may not be so easy. When committee members do try to cooperate with police officers, there is no guarantee that a police officer will be able to join in a patrol. Some of this foot-dragging (Scott 1985) may be happening because the police are benefitting from their own rent-seeking activities and are reluctant to see this form of income stop. When this is the case, setting up a weekly patrolling roster is unlikely to work since then it would be too easy for police officers to tip off fishers as to when patrols will take place. It may also be that there is limited room for a police officer to support this type of work if someone higher up the chain of command is unsupportive of such initiatives.

A fisheries committee can also patrol with a fisheries officer: this is one way to avoid patrolling with the police. In reality, funds are limited for Fisheries Administration officers to travel to remote villages to help with such patrols, and this is why fisheries officers encourage fisheries committees to cooperate with local police, to confiscate fishing gear and then call a technical officer to support this process. Fisheries officers are insistent that committees follow the regulations set out for fisheries management. Given that rule-making generally takes place at a provincial or national level, not all rules and regulations are always easy for local people to implement. Certainly,
as with the police, some fisheries officers support the idea of local management more than others.

A final option is for a committee to patrol with a park ranger, as is the case in Koh Sralao. However, of all the villages surrounding Chrouy Pros Bay, only Koh Sralao village falls within a protected area, so this is not a viable option for other villages. Park rangers tend to be local people, so they are based in a village, a practice the Ministry of Environment has been promoting since the early 2000s. The Fisheries Administration, on the other hand, does hire technical staff who are meant to work at a village level. However, given that these officers are not from the villages and generally have families in the provincial or district town, there is little incentive for them to stay in the villages for long periods of time. Encouraging local “fish rangers” may be one option for the Fisheries Administration; another is diverting more funds toward coastal patrols.

For this combination of reasons, one can understand why a resource committee may eventually decide to patrol on its own. This is where conflicts can escalate and a type of frontier violence can occur. Between 1999 and 2002 there were twenty-two deaths as a result of fisheries conflicts (Evans 2002). Although this number has now lessened, conflicts continue to lead to violence and injury (Un and So 2009). A serious effort has been made in Chrouy Pros Bay, not only by Koh Sralao’s resource management committee but also by the other two committees responsible for Chrouy Pros Bay. However, these patrols have not always been that successful and have caused a significant amount of tension between different actors. As fisheries conflicts escalate and continue to remain unsolved, a resource management committee may decide that it is not worth the headache to initiate patrols. Or, when committees do continue to patrol, they may decide to focus on illegal wildlife hunting or protecting mangrove forests and seagrass sanctuaries, which are less conflict-ridden tasks.
Through Commune Planning Policy

Therefore, even with the establishment of natural resource management committees in the early 2000s, fishers continued to trawl in Chrouy Pros Bay. Committee members were not able adequately to address these tensions through fisheries policy, in large part because of a lack of policy uptake within the provincial fisheries department (although other factors also contributed toward this). Yet resource committees are not the only local institutions responsible for resource management issues and community fisheries is not the only policy designed to enhance local governance (as shown in Table I of Chapter 1). Commune development planning is an example of another policy that is meant to empower local actors via the elected commune councils. Elected commune councils are responsible for most things that take place within their administrative units and are involved in a planning process that is designed to enable communes to identify their specific needs, with NGOs and technical departments then drawing on commune plans to deliver aid. Each commune is granted a small annual budget to be spent on infrastructure projects, or if relevant, other projects that would benefit a commune. The general experience with commune planning has been that over time resource-dependent communities have begun to incorporate more environmental and livelihood concerns within their commune development plans (CBNRM LI 2009).

How, then, has this planning process worked for the two communes surrounding Chrouy Pros Bay (which is where the three village-level resource management committees reside)? An analysis of the 2001–2007 plans for these two fishing-focused communes revealed that commune plans tend to be infrastructure-oriented, prioritizing roads, schools and wells. Mangrove replanting is also listed. Somewhat surprisingly, given the intensity of fishing conflicts found in the area, strategies to address
fisheries conflicts are not overtly found within the commune plans. Perhaps this makes sense, given that commune planning is new in Cambodia and that it takes time for government actors and local commune councils to learn how to use this type of process in a way that addresses local needs.

To expand further, one commune requested that the main boating channel in one of the villages be dredged to allow larger boats a direct route between the open sea and Chrouy Pros Bay. The other infrastructure request within this commune was for Koh Sralao village to build a bridge that connected one part of the village with another. In the second commune, a road that spanned the length of the village was requested. In both communes no contractors bid on these projects, mainly because of the challenges involved in transporting heavy equipment via boat to these areas. Hence, in spite of commune requests, in 2003 and 2004 no infrastructure development projects were funded in this area. In other words, the communes of Chrouy Pros Bay had not spent the money that had been allocated to them by the national government.

Around this time, perhaps in response to the chaotic situation that the Fisheries Administration was not able to regulate combined with ever increasing trawls in the area, Koh Kong’s provincial governor became interested in finding a solution to fisheries conflicts. Having grown up in a fishing village himself, the provincial governor visited Thailand in early 2004 to learn how artificial reefs could protect seagrass areas and attract fish habitat. After this study tour, the governor recommended that the unspent commune funds be used to build concrete artificial reefs that could serve as fish attractors throughout Chrouy Pros Bay. This was argued to be a strategy that could help poor fishers in the area and increase fish habitat and productivity. The provincial Department of Planning, which is responsible for facilitating commune planning processes, agreed that this would be a good use of unspent commune funds for these communes.
Yet neither of the two communes actually requested artificial reefs in their commune plans prior to 2007. Before 2007 any requests related to natural resources were mostly in terms of environmental education or mangrove replanting. Little was found in terms of the fishery, even though this was the very period when conflicts were escalating. It is worth repeating that the specific infrastructure requests were to dredge a channel, build a bridge and build a road through one village. As one commune councillor noted: “[W]e did not think of the concrete reefs by ourselves. Actually we were not asked about how else we might spend the funds. We were told that our money would be spent on artificial reefs. We were not in a position to refuse” (Dec 2006).

Hence, with serious encouragement from the governor, the provincial administrators responsible for commune planning decided to spend the money allocated for infrastructure development to build concrete artificial reefs, combined with cement poles used to demarcate seagrass conservation areas. In 2005 the construction of artificial reefs and cement poles began; in early 2006, 414 concrete artificial reefs and one thousand cement poles were placed throughout Chrouy Pros Bay. The estimated expense of the job was CA$ 80,000.

Why, then, did Koh Kong’s provincial governor encourage this? According to one government official,

I think he [the provincial governor] was really clever to push for the artificial reefs. Although he said it was to protect the sea grass, it was actually a good way to limit trawls coming into Chrouy Pros Bay. There has been a lot of conflict in that area and this has been a difficult issue to solve. This way he could get around those technical staff who were not that active in finding solutions for resource problems, and the trawls could not blame the poor fishers (Member of the Department of Environment, Koh Kong, 2008).
Once the provincial governor had encouraged the commune funds to be spent on artificial reefs, few people appeared to object. There was a general feeling among technical experts and fishers that the seagrasses found in this area were in decline because of the use of trawls in the area (Bock 2006). Thus, the NGOs working on environmental issues applauded the move and lent further support to build additional poles to demarcate seagrass conservation areas (PMCR 2008). Moreover, this deployment of artificial reefs appealed to technical departments. The local Department of Environment had been hoping to address seagrass decline for a while, so they were in strong support of this move. The Department of Planning saw this as a way to spend the commune funds allocated to this area. The Department of Fisheries recognized that this would alleviate some pressures on local fisheries conflicts and were also in support of seagrass conservation.

The commune council, while somewhat frustrated that they had no say in how to spend their commune funds, were pleased with this project when they noticed a decline in trawls and saw that the reefs served as fish attractors. Anecdotal evidence from local fishers suggested that there was an increase in fish and crab near the reefs. When asked in 2007, one year later, about how artificial reefs had impacted upon their livelihood, seventy-seven percent of Chrouy Pros fishers felt that the impact was positive (fourteen percent negative, nine percent no opinion). The only people that were upset were the trawl fishers, who found it risky to use such gear in areas where the concrete reefs were not demarcated. Many trawl and push-net fishers were forced to change their fishing grounds and argued that they were now catching smaller yields (although still more than most crab fishers). Even so, a few trawl fishers have been creative. Several placed two long wooden poles holding a net on the front of their boats. When this device touches a cement pole, the trawl then seeks a new direction that avoids the cement
poles and reefs. This is one way to avoid the artificial reefs and still trawl in the area, although it does take more work (which is why not that many fishers are doing this).

By early 2008 there was a general sense that conflicts had decreased in the area, including the destruction of nets from trawls that Sok described in the beginning of this chapter (granted this still happened, but to a somewhat lesser extent). Poorer fishers talked about being able to set their traps in the areas surrounding the artificial reefs; village leaders were content that a major conflict had significantly lessened. Moreover, the resource management committees were relieved that an ingenious solution had been found to an issue that they had, thus far, not been able to address adequately, and technical departments were pleased with the results of the deployment of the artificial reefs and the demarcation of seagrass sanctuaries. It appeared that things were looking up for fishers in this area, for the first time in a while.

DEALING WITH SAND MINING

This is why taking a longitudinal approach to research is so interesting. Had I stopped my research for this book in 2007 or 2008, as I had originally intended, I would likely have suggested that modest gains had been made in the area of resource governance in spite of stock declines and the general challenges facing communities in this area (granted resource governance was fragile, but nonetheless, something important had been attempted). However, this story does not end with the deployment of artificial reefs and communities demarking seagrass conservation areas to ensure the gradual increase in fish stocks. It is no exaggeration to suggest that the entire resource governance effort in this area has been side-swiped since the advent of sand mining.
Business entrepreneurs turned to Cambodia’s coasts in late 2007, looking to mine sand for export within the region. This was likely linked to Indonesia’s ban on sand exports in 2007 and the construction boom occurring throughout Southeast Asia and China. Several national ministries (initially the Ministry of Industry, Energy and Mining and then the Ministry of Water Resources and Meteorology, which houses the Committee for Sand Resources Management established in 2009) issued a series of permits that enabled sand mining in southwestern Cambodia. Sand mining activities are found in and around the provincial town and in the rivers flowing through the mangrove-estuary areas toward Koh Kong Island at the edge of Chrouy Pros Bay. This is the same area that fishers rely upon to earn their livelihood. Although these dredging operations began in a handful of sites in late 2007 and early 2008, by 2010 there were an estimated twenty-seven dredging sites within this area (Global Witness 2010). Figure II identifies the multiple sand dredging sites in and around local fishing grounds.

How did this situation emerge so rapidly? In early 2008, within a few weeks of the sand mining operations beginning, villagers in Koh Sralao and elsewhere noticed a decline in the swimming crab population; after several months of sand extraction, the swimming crab population was particularly low. At this point, fishers began to suspect a connection between sand mining and the rapid disappearance of this species in their fishing grounds (as was mentioned in Chapter 3). Koh Sralao’s resource management committee initiated a campaign, working with the other resource committees in Chrouy Pros Bay. The goal was to have the Ministry of Environment investigate this issue. Villagers from the three communities thumbprinted a petition asking for the sand mining to be stopped since it appeared to be negatively affecting fish stocks. This petition was sent through official channels. Meanwhile, committee members contacted those whom they knew in government departments to see if
Source: Ministry of Environment, Cambodia, August 2010; location of sand mining adapted from Global Witness 2010 and Marschke 2010 field observations.

FIGURE II: Sand Dredging Sites (Black Triangles)
someone could help them address this issue. The Ministry of Environment sent a delegation of government officials to investigate the issue in April 2008. The delegation examined the situation, talking with local fishers and those controlling the sand mining operations. Water quality samples were also taken; these tests, however, did not come up with anything unusual. Sources who observed the mission suggested that the sand mining operations were suspended the week prior to this delegation visiting and that the delegation was put up in a five-star hotel, owned by one of the main business entrepreneurs controlling the sand mining operations. It appears that nothing came out of this mission.

In the two years since the committees thumbprinted the petition, sand mining activities steadily increased. Koh Kong fishers, including members of the resource management committees discussed in this chapter, have resorted to taking part in protests in the provincial town (such as in October of 2009) and to filing complaints with provincial authorities (Sokheng and Strangio 2010). This has all been to no avail. There has been no environmental impact assessment conducted by the Ministry of Environment to assess the impact of the sand dredging upon the ecosystem, unless the water quality samples count, nor have any scientific studies been undertaken by fisheries or other scientists to assess the health of the crab population or other fish stocks. Considering the seriousness of this activity, little mention is made of sand mining in any written documents (with the exception of Global Witness reports, which I will discuss shortly). Moreover, I have not been able to discuss this issue with any government officials at the provincial or national levels, although it is rumoured that the old provincial governor (who had supported the artificial reefs but was not re-elected in 2008) is using informal channels to try to lessen the amount of sand being mined and removed from this area.
In my last visit to Cambodia (May 2010), Sovanna further explained the sand mining activities to me:

For the past year we have seen many boats and barges pass in front of our village, and we can hear the equipment being operated all day and all night. It is very noisy. Have you gone out to Koh Kong Island to see the piles of sand and the big ships? These ships have flags from other countries, including Singapore and Malaysia. This is one place where they load the sand to ship somewhere else. At first we tried to stop the sand mining since this activity really affects the crabs but it seems that there is nothing we can do. If we are lucky the companies will soon stop working in this area (May 2010).

I followed Sovanna’s advice and took a boat to the area that he described. Since I am not a mining expert, it is hard for me to assess precisely what I saw. Nevertheless, I observed a large sand depot near Koh Kong Island at the edge of Chrouy Pros Bay, saw six sites where sand dredging was taking place and saw at least ten barges and five large ships all in the span of several hours (in May 2010). While the Cambodian government does allow for smallish amounts of sand to be dredged each month—between forty to sixty thousand tonnes—from what I saw and from what villagers suggested, it is probable that more sand than this is being dredged on a monthly basis.

Even with knowing that sand mining activities are taking place in full force, it is difficult to assess the exact impact of these activities. This is because there are few visible signs of serious degradation (as compared to clear-cutting, charcoal production or aquaculture ponds) unless you are a fisher in the area, and there have been no scientific studies undertaken to verify villager claims of stock declines (meaning that such claims are easily dismissed as exaggerated). Moreover, journalists do not appear to be able to access the sand mining companies, and the little written documentation that exists is based
on a series of investigative-journalism-type reports (cf. Global Witness 2009, 2010; Sokha and Strangio 2009). Regardless of the details, it appears that sand is dredged and loaded onto three-hundred-ton barges for transport to a sand depot area where the sand is then cleaned and stored prior to loading onto a larger ship (capable of holding fifteen thousand tonnes of sand) (Global Witness 2009; Sokha and Strangio 2009). Reporters also viewed shipping documents that listed the transfer of 77,236 tonnes of sand from Cambodia to Singapore ports within one week in 2009 (Global Witness 2010).

Perhaps in frustration from the lack of uptake on this issue, Global Witness produced a report in May 2010 suggesting that Singapore needed to explore options for sustainable sourcing of raw materials and to consider carefully how problematic Cambodia’s sand mining sector is. (Singapore appears to be the primary destination of Cambodia’s export-oriented sand sector.) The report included controversial statements such as “millions of dollars are changing hands, but there is no way of tracking whether royalties, taxes and other revenues generated from the sand dredging and export industries are reaching the national treasury” and “[c]ompanies operating in the sand sector as well as Cambodia’s regulatory agencies are ignoring its national environmental and social safeguards, and international industry best practices” (3). Global Witness also released the following press release:

Cambodia’s international donors must tackle head on the gross mismanagement of the country’s natural resources at tomorrow’s government-donor meeting . . . . Donors gave Cambodia $1bn in aid last year, despite evidence of widespread corruption and mismanagement of public funds and repeated failures to implement promised reform (“International donors must act on entrenched natural resource-related corruption in Cambodia” 31 May 2010).
The Cambodian embassy responded as follows:

The Royal Embassy of Cambodia to the United Kingdom is not surprised to read the press release by Global Witness . . . as always mentally disturbed and exaggerated with a hidden agenda of pursuing in hugely-damaging smear campaigns to discredit the Government of Cambodia (“Global Witness to fall into its ‘own trap’” 1 June 2010).

Both positions suggest a level of frustration with how things are represented. While there may be a middle ground to this story, there is no doubt that larger macro-economic development forces are affecting villagers in southwestern Cambodia. A few business entrepreneurs are gaining from this activity, with local people not benefitting in the least. If you remember the details of Chapter 3, around a sixth of all households left Koh Sralao village in 2009, citing serious fish decline related to sand mining as a reason (these fishers were carrying high debt loads). It is likely the tipping point that has forced households to consider relocation to other areas. This might be acceptable if there were broader economic gains being made that could be funnelled into education, health or basic infrastructure development. Sand mining would be far more understandable, if this were to be the case, as this would then allow for a real discussion about development trade-offs (economic growth, environmental sustainability, etc.). Unfortunately, the benefits of sand mining remain unclear since tracking the royalty fees that businesses are expected to pay on each tonne of sand is difficult at this point (Global Witness 2010).

This issue illuminates how the governance of certain types of coastal resources is not always easy, and how sometimes policy frameworks may be avoided or ignored. For example, these sand mining concessions were granted within a protected area and a Ramsar site, an area where villagers had worked on resource governance issues, in connection with the provincial governor,
the Ministry of Environment and the Fisheries Administration. People in relatively high positions know about the work of these communities. Sand mining is not meant to take place within a protected area, and mining outside of protected areas is subject to an environmental impact assessment. The permits granted to business entrepreneurs, for small amounts of sand extraction, appear to be ignored. It is no wonder that villagers resorted to protest and, with time, became resigned to this situation. Those that stay in the area hope it ends soon; those that left felt they had no other choice.

Most of the sand mining in Koh Kong province is done in the southwestern part of the province, which has been the focus of this research. Two of Cambodia’s richest business entrepreneurs control these operations: they are each national senators and are likely making a lot of money. The export of sand from Koh Kong province is estimated to be worth US$ 28.7 million annually (Global Witness 2010). Even if numbers and the importance of connections are exaggerated, this analysis gives a sense of the magnitude of this business. It is no wonder that fishers’ complaints are not taken seriously or that the Ministry of Environment and the Fisheries Administration are not in a position overtly to protest the sand mining. This is likely another case of Cambodia’s elite benefitting from resource extraction activities, as seen in other sectors (Le Billon 2002; Un and So 2009; Cock 2010). This operation also demonstrates how broader political economy issues can have a devastating impact upon an area. Although a significant effort has been made to support resource governance, in cases like this where business entrepreneurs have high-level connections and can make a significant profit, it appears that power does trump rationality.
CONCLUSION

As this chapter has shown, resource governance policies do not necessarily unfold according to what is written nor are they always followed. Community fisheries policies and programs, designed to support fishers in managing their fishing grounds, have not been implemented as envisioned. For example, the Fisheries Administration has a limited budget to support patrol-lung efforts, and in some cases staff may not be interested to do so; moreover, certain polices such as the banning of trawls in shallow waters are not enforced (to be fair, most government departments are not enforcing all of their policies). Local governance processes, vis-à-vis commune development planning, have also not followed the prescribed ideal. As employing artificial reefs exemplifies, commune planning, the pinnacle of Cambodia’s decentralization agenda, may not be steered from the local level as is envisioned. This may not be a bad thing, however, if a provincial governor is creatively using policy to deal with issues that have proven difficult to solve such as fisheries conflicts. Finding a way to limit trawls—an illegal activity that no one could prevent—in the name of seagrass conservation was a brilliant move since all direct conflicts were avoided and no government department lost face in the process. This example illustrates the hybrid nature of resource governance in Cambodia, and why adapting governance processes to suit a cultural context may not be an inappropriate move.

Nonetheless, “steering hands” can be problematic and this type of informal, adaptive approach to policy will not always work. Sand mining speaks to this. In this case there is no champion willing to stop sand mining, normal policies designed to halt such levels of extraction are not followed and it appears that business entrepreneurs are very well connected. Given the serious amounts of money being made from sand mining, it is hard to imagine anyone is interested in stopping this type of
activity. Mineral development continues to be promoted as a way potentially to alleviate poverty, although this appears to be a rather rhetorical statement. Sand mining is an example of a missed development opportunity for both local citizens and the state in general. As is seen in the mangrove-estuary villages, development benefits do not stream down to local fishers or, from what my informal discussions suggest, to local government officials either. Furthermore, there has been no talk of compensation for fishers’ livelihoods as former fishing grounds are no longer accessible resources. The poorest of the poor were forced to flee this area as a way of escaping their debts.

This chapter demonstrates, from another perspective, just how difficult it is to support ongoing resource management activities and resource governance more generally within Cambodia’s social-political context. It also illustrates that it requires more than a committee’s initiative to engage in active resource management practices. Even with decent policy and strong local will, efforts may be blocked by multiple actors. Higher-level political support is necessary in some cases. Yet the plight of smaller-scale fishers is not the most pressing issue for many government agencies, particularly those fishers living in remote, frontier-like areas of the country. This suggests a rather real failure in governance at many levels, particularly the national level.