LEARNING AND ADAPTING WITH CHANGE: AN EXAMINATION OF TWO CAMBODIAN VILLAGE-LEVEL RESOURCE MANAGEMENT INSTITUTIONS

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May 2004

Much of the initial community based natural resource management (CBNRM)[1] work in Cambodia, which began in the 1990s, was 'experimental'[2] as community members and NGOs and/or government facilitators worked on understanding just what resource management could look like 'on the ground'. Most of these village-level institutions were created in a policy vacuum, with resource management committees and their accompanying maps and management plans being recognized informally through appropriate signatures (from village headperson to the provincial Governor) and in some cases technical departments at a provincial or national level. These initial experiences, therefore, have contributed to the proliferation of community based management processes (or parts of these processes at least)[3] now found across Cambodia, for example, through government decentralization programs, land management programs and community forestry and fisheries programs. Additionally, environmental NGOs have added 'community based natural resource management' into their conservation work i.e., Wild Aid, WWF, CI, FFI.

How community based management unfolds, at a village or commune level, varies across provinces and varies between projects and government agencies. The work in Ratanakiri (IDRC/UNDP/SIDA supported), for example, has informed much of the approach towards

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[1] Marschke and Nong (2003: 381) argue that "CBNRM and the simplification that this term embodies, may not be the most appropriate label for the process that is unfolding in Cambodia. This is not to suggest that community is not an integral part of resource management; however, it should be recognized that community management is part of a broader process of learning and adapting that includes government actors. Perhaps adaptive co-management better captures the essence of the process that is unfolding in coastal Cambodia…"

[2] There are several projects that have been working on CBNRM (also known as community based management, community fisheries and community forestry) since the 1990s i.e. PLG, Ratanakiri; FAO-Tonle Sap; GTZ, Kampong Thom; IDRC, Koh Kong.

[3] A number of legal mechanisms now support community involvement in resource management. For example, within the 2001 Law on Management and Administration of the Commune (Cambodia's most significant decentralization development to date) Commune Councils have a broad clause related to 'good governance and managing the use of available resources' (article 41) and 'to protect and conserve the environment, natural resources and national cultural heritage' (article 43). Community forestry can take place (according to the 2003 Community Forestry Sub-Decree) with approvals from the Forest Administration. The draft community fisheries sub-decree is waiting for final approval (Marschke 2004).

mainstreaming natural resource management within Cambodia's decentralization program. Procedures for mainstreaming resource management within Commune Councils in their commune development plans began piloting in 2003 in 40 Communes in three provinces (Pursat, Siem Reap and Kratie) (Seila 2002). Other experiences have fed into policy creation supporting community forestry and community fisheries i.e., the Participatory Management of Natural Resources in the Tonle Sap project (FAO funding) significantly influenced the fisheries reform (Evans 2002).

While some notion of community based management appears to be accepted, it is unclear if organizations (government institutions, projects and non-governmental organizations (NGOs)) recognize what community based management entails, or the nuances and dedication needed from facilitators to ensure that villagers, and their local knowledge, play a significant role in developing and carrying out appropriate resource management strategies. For example, Rock (2004) comments that the community based management approach taken by government institutions generally leaves little initiative with a village, undermines the role of the Commune Council and provides limited management responsibilities and tenure security to communities. The trend in community forestry is to give degraded or disturbed forests for communities with the aim of protecting and regenerating resources (Rock 2004). Valuable forestry, or for that matter fishery, resources are rarely allocated: in many cases, poor resource allocations do not make it worth communities investing their time into resource management.

This is why the approaches taken by the 'older' community based management organizations i.e. local level institutions, and the projects supporting this process, are worth closer examination. Several communities, while not the norm, have demonstrated that they can curb some destructive environmental practices near their community through an active resource management program. This paper, based on research findings from a sixteen-month field study into rural livelihoods and community-based management strategies at the household and community level, seeks to explore the conditions under which resource management strategies have developed in two rural Cambodian fishing communities. Koh Sralao is a coastal village of 297 households that became actively involved in community-based management as their resources became depleted. Kompong Phluk is a commune (a commune is several villages combined as an administrative

unit) of 434 households on the Tonle Sap Lake that has been practicing community-based management since the 1940s, perhaps one of the oldest examples of resource management (forestry and fisheries) known in the region. How, then, is management knowledge developed and transmitted in each area? After providing a brief overview of each committee, the history of resource management in Kompong Phluk is explored. More specifically, how local resource management institutions are able to adapt to, and learn from, an ever-changing resource management context is examined, highlighting how learning has evolved in Koh Sralao.

INTRODUCING TWO RESOURCE MANAGEMENT CONTEXTS

Koh Sralao is a coastal fishing community; Kompong Phluk is a freshwater fishing community. Both communities are engaged in resource management strategies and have had support (technical and financial); however, these two communities differ in terms of homogeneity and stability. Koh Sralao, for example, includes many households that were displaced by internal conflicts and economic disasters in other provinces: most households have learned to harvest various resources, after other income generating activities, such as charcoal production and shrimp farming, collapsed. This differs significantly from Kompong Phluk where household composition has been relatively stable and there is a history of fishing and resource management in the area.

For instance, in Kompong Phluk elders remember working together to find a common strategy for resource management. Motivated to protect their homes from storms and winds, they agreed to stop the farming of watermelons near their villages in the late 1940s and to let the area naturally regenerate. This regenerated forest served to protect their homes from storms and winds, in addition to providing habitat for fish species. On the other hand, resource management practices in Koh Sralao appear to have emerged after villagers faced dramatic resource declines (Marschke and Berkes in press).

Table One provides an overview of two resource management contexts in Koh Sralao and Kompong Phluk, including: the number of households in area; percent of households involved in fishing; percent of households living in the area for more than ten years; the history of resource

management in the area; and why the committees were established in the village or commune. Both communities are dependent on fishery resources for their livelihood. In Koh Sralao, 75 percent of households surveyed were involved in fishing activities; in Kompong Phluk, the figure was even higher at 86 percent. The two communities differ in terms of homogeneity and stability. Koh Sralao includes many households that were displaced by internal conflicts and economic disasters in other provinces, whereas the household composition in Kompong Phluk has been relatively stable. Less than 40 percent of households in Koh Sralao have lived in the community for ten years or more. Most households have learned to harvest various resources, after other income generating activities, such as charcoal production and shrimp farming, collapsed (Marschke and Nong 2003). This differs significantly from Kompong Phluk where almost all of the people have continued to live in the community (returning after the Khmer Rouge).

Table One: an overview of two resource management contexts

	KOH SRALAO	KOMPONG PHLUK
No. households (hhs) in area	297	434
% hhs involved in fishing	75	86
% hhs living in area for > 10 yrs	40	92
History of management?	No	Yes, especially flood forest protection near village
Why village resource management committee was formed	Established in 2000, after working with a project for several years and seeing dramatic resource declines (fishery and mangroves) in their area. Although an in-migrant community, with people initially being lured for resource extraction opportunities, a need for resource management is seen by some.	Established in 1999, with support from a project. History of resource management, specifically flooded forest protection. Community members wanted to strengthen their resource management practices and get help in dealing with land encroachment issues i.e. flooded forest areas being cut for agriculture.

Adapted from: Marschke and Berkes, in press

Although both village resource management committees (VRMC) are relatively young, having been established in 1999 and 2000 respectively, they are acknowledged as success stories for

community-based management; other communities are not necessarily as well organized, interested or active (Marschke and Berkes, in press). Both field sites have had support from development projects; this support has been more of a technical nature than financial. A critical factor for the success of these committees is how government partners and donor agencies have facilitated an interactive process with committee members and other stakeholders, and further analysis will be given to the nature of this facilitation. In Koh Sralao, the Participatory Management of Mangrove Resources (PMMR) research team has worked with villagers on community-based management issues since 1998. In Kompong Phluk, the project team of the Participatory Natural Resource Management in the Tonle Sap Region project team has worked with villagers on resource management issues since the mid-1990's (Marschke and Berkes in press).

Each committee's experience suggests that it requires motivation and problem-solving skills from the resource management committees themselves to drive the work, in addition to knowing that they have support from an outside organization (i.e., government counterpart, project or NGO). In the case of Kompong Phluk, villagers wanted to work with the Tonle Sap project because the knew they could not stop farmland encroachment on their own; in the case of Koh Sralao, the committee grew confident to experiment and stop illegal charcoal activities because they had the support of the PMMR team. Resource management strategies, therefore, include creating local systems of support; getting police and government agencies to engage in patrolling and enforcement activities together with villagers; disseminating rules and regulations; and networking amongst villagers to support the committee's work.

KOMPONG PHLUK: HOW HISTORY CAN SHAPE RESOURCE MANAGEMENT PRACTICES

Kompong Phluk is a flooded forest community, situated at the edge of the Tonle Sap Great Lake. One unique characteristic found in Kompong Phluk commune is the history of local resource management. Elders, villagers over the age of 55 holding local knowledge, recall learning about the importance of forest protection from their Elders.

> "Old people knew, they knew a lot. Old people knew that fish lived in the [flooded] forest... and that the forest helps to protect the village, especially in the flood season,

from water, waves and storms. Protecting the forest meant that they were protecting the fish breeding grounds. This meant that there was enough food" Ros Norn, Kompong Phluk, May 2003.

Elders remember working together to find a common strategy for resource management. Motivated to protect their homes from storms and winds, they agreed to stop the farming of watermelons near their villages in the late 1940s and to let the area naturally regenerate. This regenerated forest served helped to protect their homes from storms and winds, in addition to providing a home for fish species. Villagers were motivated to continue these forest protection practices, especially near their villages. The former watermelon patch is now the high-density forest that surrounds the commune! Table Two depicts the history of resource management in Kompong Phluk.

Table Two - Historical Time Line
Use of Flooded Forest & Management Practices in Kompong Phluk

1930s-1940s	Parts of flood forest cleared for watermelon cultivation; wind and storms affecting villages near Tonle Sap lake;
late 1940s	Villagers protest (most likely complained to commune or district level)! Watermelon cultivation stopped; reforestation was encouraged and cutting of the inundated forest was limited;
1960s	Some forest cutting for mung bean cultivation; also pumpkin, cucumber and other vegetables are grown near village;
Khmer Rouge	Mung bean cultivation expands into edge of the flood forest: other resources (fish and trees deeper in lake) not used;
early 1980s	Collective farming: mung bean farms divided between 300 families living in Kompong Phluk;
1987/1988	Administrative reshuffling: parts of Kompong Phluk commune transferred. District authorities hand over mung bean farms to upland communes;
early 1990s	Slash and burn of the flooded forest area, especially bordering other communes, for conversion into mung bean farms;
1994	Fire, possibly from careless fishers in upland areas, burned 200ha of flooded forest, enraging villagers and serving as a catalyst for further protection;
1998	The community requested assistance to expand community forest area and stop encroachment of mung bean farming; replanted 50ha of former farmland with provincial Department of Fishery support;
1999	Several hundred more ha of farmland being allowed to regenerate naturally;
2000	Community mapped and planned the management of 972ha with areas allocated to fuel wood production, fishing grounds full protection;
2001	With freshwater fishery reform, the community expanded the boundaries of their community forest / community fisheries grounds to cover a total of 14 733 ha; for several months complete over-fishing took place which helped to create a platform for greater local management;
2002/2003	Community has established a Fisheries Management Plan, one of the first in Cambodia! Experimenting with creating a fish sanctuary.

Adapted from: field notes; Evans 2002

As Table Two highlights, there is a history of resource management and flooded forest protection in Kompong Phluk specifically related to flooded forest protection. After the Khmer Rouge regime which, ironically, enabled forest and fishery resources to replenish and thrive, flooded forest areas began to decline. There was an increase in mung bean farming, and other types of farming, both by villagers and outsiders. However, with the centralized administrative reshuffling in the late 1980s, Kompong Phluk farmers lost their mung bean fields to other communes. Since then there has been a steady encroachment from upland farmers into the flooded forest areas. This, coupled with additional resource pressures (i.e. population growth, resettlement post-KR, less access to common property resources and declining fish stocks due to rapid over-fishing) led the community to re-think their resource management strategies.

This 'rethinking' began, in part, as a response to the encroachment from upland farmers into the flooded forest area near the commune, and because of opportunity to work with the Tonle Sap project. As Tep Pheoro, another Kompong Phluk committee member, recalled:

> "Long before the community was set up, people loved and took care of the forest. It was not perfectly managed, though, especially in recent times. So, it was good timing to work with FAO, for them to help us. We wanted to stop the mung bean farming, which started in 1993, near our commune" (September 2002).

Historically, flooded forest protection was achieved through local management mechanisms such as oral agreements with local government support[4]. In the late 1990s, however, resource management mechanisms became formalized through rules and regulations that were set up by the community forestry committee in Kompong Phluk and facilitated by the Tonle Sap project. The initial 927ha of flooded forest under community management expanded in 2001 (at this time, former fishing lot concession areas were released from the state to be managed by the community as part of the fisheries reform policy (which will be discussed later)) to 14 733ha (flooded forest and fishery resources).

[4] Considering the cultural context, it is not surprising that local management practices would need to be endorsed, most likely informally, through village and commune level 'officials'. For example, recent findings from an Asia Foundation study illustrates that Cambodians participate in elections to "fulfill their civic duty. Almost none think that elections offer an opportunity to provide input into government policy and composition or to change the direction of their country" (2003: 10).

This committee is engaged in resource management activities in part because of the history of flood forest protection in their community i.e., an appreciation of trees near the villages and an awareness of the multiple benefits of protecting these trees and in part because of rapid resource declines (fish and trees). The committee in Kompong Phluk has been working together for several years now, exploring different management options and strategies. For instance, the committee worked with project staff to have the local fisheries official that was not supporting their community fisheries work to be replaced by someone who helps them with patrolling against illegal activities. In the case of mung bean farming encroachment, the committee works with provincial authorities and project counterparts to stabilize encroachment, informing district officials that further land encroachment in the area is intolerable. While they recognize that they cannot tackle all the issues, they feel that they can solve some of their issues and can get support from the project to help them facilitate those issues that are more difficult.

LEARNING FOR RESOURCE MANAGEMENT

Most government officials or NGOs staff will be welcomed into a village, since a team is often composed of provincial and national staff, and Khmer culture demands deference to those with higher authority. Central to fostering a learning environment, however, is changing this relationship from one of formality (or perhaps even co-option) to one of cooperation. For example, a community fisheries committee may write a fisheries management plan, largely supported by outside facilitators to meet the criteria of the Department of Fisheries. Such a prescriptive process will do little to enable committee members to express their views or ideas for fisheries management and will most likely fail.

Members of the resource management committees in both Koh Sralao and Kompong Phluk have reflected on how much they have learned by trying out different resource management strategies, seeing what works and does not work, and then trying something new again. Dom, a fisher and committee member, expressed “this work has helped me to think ahead. Normally I just do, I do not think about how I can make better choices, both for my household and my village” (April

2004). Committee members feel that the process of working together on solving an issue helps them to find better, more realistic solutions.

This section brings in an initial analysis of how villagers learn different management strategies (further analysis is required) i.e., household, village-institutional level and broader village level. For example, how do fishers learn to fish? What do villages learn from experimenting with different resource management strategies? How is such learning shared?

HOUSEHOLD LEVEL

Wayne Som Sak is a fisher from Koh Sralao. He has always lived in this area, and is known to have diverse fishing skills. He learned these skills from his father and from Thai fishers at different points in his life. Although his father, a respected elder and fisher in the village, had passed on his fishing skills to his son, Wayne supplemented these skills through learning with Thai fishers when working as a labourer. Since Wayne's family comes from an area near the Thai border, he speaks both Thai and Khmer and is able to access two sets of fishing networks. Table Three illustrates how Wayne learned to fish with different gear.

Table Three: Learning How to Fish

NAME	FISHING GEAR	HOW LEARNED TO USE GEAR	AGE AND PLACE LEARNED
Wayne Som Sak	Fish trap	Labourer for Thai fishing boat in Koh Kong	27, near Koh Sralao
	Gill net	Learned from father before KR	14, near Koh Sralao
	Hook & long line	Learned from father before KR	14, near Koh Sralao
	Crab net	Escaped during KR to Thailand, learned as a fish worker	19, Thailand
	Shrimp net	Escaped during KR to Thailand, learned as a fish worker	19, Thailand
	Circle net	Escaped during KR to Thailand, learned as a fish worker	19, Thailand

In a village like Koh Sralao, an in-migrant community, not all people can learn from their parents. Some villagers learn to fish from neighbours and friends, with fishing knowledge developing over time. Unlike in Kompong Phluk, where most households reported learning to

fish from their parents, fishers in Koh Sralao had to be more creative to learn their fishing skills. This speaks to the ingenuity of some households, and the ability to access information and technology when interested. Resource management knowledge is very fluid, especially in fishing households that are often very mobile.

VILLAGE RESOURCE MANAGEMENT LEVEL

Village level learning can also take place, in terms of household strategies and wider village-level strategies. In a reflection workshop, assessing different livelihood strategies that villagers engaged in, participants were asked to consider challenges that they face, strategies to deal with such challenges and what they learned as a result of trying these strategies (see Table Four). For example, in Koh Sralao stolen fishing gear and lack of livelihood opportunities in the rainy season was mentioned.

Table Four: challenges, strategies and learning

CHALLENGE	STRATEGY	LEARNING
Stolen fishing gear (crab traps and nets)	Paint fishing gear; list the fishing equipment in village; internal laws to create order	Spray paint not as good as hand painting as keeps longer; need to disseminate regulations to more stakeholders and increase cooperation; VRMC working alone not strong enough
Storms and winds in the rainy season: few options	HHs need to save money in the dry season for the rainy season; people cannot fish or catch many crabs but can cope	Organize mangrove replanting in exchange for rice during the rainy season (VRMC); Collect mangrove snails; catch fresh fish by hook and long line; try to sell things like cakes (although people do not spend much money)

Stolen fishing gear is a constant issue within fishing villages: sometimes the police are in on this; sometimes villagers steal from each other; sometimes the VRMC makes mistakes in how they handle a situation. The VRMC worked with villagers to mark their crab traps as a way to identify stolen fishing gear, which worked for a while; however, since the paint washed off it was suggested that an oil-based paint would work better next time. Also, villagers recognized that it was not enough to have an internal law prohibiting the theft of fishing gear but that more stakeholders needed to be aware of these regulations and the consequences involved with stealing fishing gear i.e., accountability.

Similarly, households need to save money during the dry season to get through the rainy season. One strategy the VRMC supported was to organize mangrove replanting activities during the rainy season in exchange for rice, since this is the time of year that food shortages exist. Committee members all volunteer their time: some may initially join thinking it will enhance their 'power' in the village, or for other reasons, however, those that remain engaged believe in what they are doing. "I want to help my community, we are really poor. We know that when the mangroves increase, it will help the poor fishers a lot, especially in the rainy season," comments Wayne Som Sak (Koh Sralao, 27 October 2003). Contrary to popular opinion, villager can engage in sophisticated strategies to enhance their livelihoods when they believe in what they are doing.

COMMUNITY PARTNERSHIPS: LINKING WITH LOCAL AUTHORITIES AND PROVINCIAL STAFF

Often it is harder for village-level institutions to tackle larger issues i.e., beyond the village or commune level especially since most illegal activities are supported by someone with 'power'. However, the following story illustrates how it is possible to stop illegal activities providing adequate networks are in place i.e., support from village to provincial level.

Stopping illegal charcoal production is an on-going battle, for villagers and provincial officers alike. In the 1990s, many villagers came to Koh Sralao to produce charcoal. Mangrove wood burns well, producing a high quality charcoal. Charcoal was then sold to Thailand. This system was complicated, with middlepersons reaping most of the benefits and poorer persons cutting the mangrove trees and producing the charcoal. Various government supported crackdowns began in the mid-1990s, with the most significant crackdown happening in 1999. By this point, it was clear to villagers that producing charcoal was not a secure option for them, and most people switched to fishing.

Therefore, when the village management committee in Koh Sralao began producing their own resource management plan, stopping illegal activities, which includes charcoal production, was included. Before establishing this committee, the local community was afraid to stop illegal activities, especially illegal activities supported by power persons (those with guns, money and

influence). However, the following situation (detailed below) shows the growing confidence of the VRMC in their resource management work.

> In May 2002 the VRMC in Koh Sralao arrested one boat carrying mangrove logs. This boat did not have permission to cut trees from the VRMC: according to the regulations, mangrove trees may be cut for house construction by villagers only with permission from the VRMC. However, the boat owner was related to the provincial police commander. So, after the VRMC confiscated his logs, he called the provincial police. The provincial police called to PMMR, at the provincial level. PMMR reminded the police that the Provincial Governor had signed the management plans of the VRMC, and that the VRMC was stopping illegal activities. PMMR asked the police to work with the VRMC to solve this issue; at the same time, PMMR reminded the VRMC that they had the right to solve this conflict. The VRMC was able to negotiate with the boat owner to pay a fine and sign an agreement saying he would no longer carry out illegal activities in the area. A definite first considering that the boat owner had connections to the provincial police, an organization far more powerful than the VRMC!

Although the VRMC needed the support of PMMR, especially to remind them that they had the right to stop this activity, it was up to them to negotiate how to solve this problem. Without the signature of the governor, and the facilitation support from PMMR, it is debatable if this could have worked. When reflecting upon the process, Sovanna, the VRMC leader, commented,

> "I knew that we were doing the right thing, but once I realized the connections the offender had I became scared. Even though everyone knows cutting mangroves is illegal, it is not so easy to stop. Luckily, we have been doing this work for a while and people know our reputation for protecting the environment. And, I had people that could help me if it got too complicated" (Koh Sralao, 22 April 2004).

Resource management practices are about trial and error: feeling comfortable to try out different resource management solutions and being willing to follow through on ideas. Having the support of someone at a higher level (government counterpart or NGO team) level certainly

helps, and careful thought needs to be given to consider how such processes can be facilitated. Sometimes including multiple stakeholders can feel exhausting but, generally, the support will prove useful over time. The successful mangrove resource protection near Koh Sralao comes from strong cooperation and participation among interested stakeholders, directly and indirectly supporting community based management processes.

HOW TO FOSTER THE 'BOTTOM UP' OF ADAPTIVE CO-MANAGEMENT

Cambodia is a hierarchical[5] context: having higher-level support for community based natural resource management activities is essential. Although households and village-level institutions do practice a variety of resource management strategies, a learning environment may be enhanced (i.e., in the sense that it feels less risky to try things) when there is appropriate political support for community involvement in resource management. That is, one needs a policy environment that is both formal (laws) and informal (official endorsement).

Take, for example, the 'fisheries reform'. In October 2000, PM Hun Sen visited the provinces and heard about conflicts between fishers and the fishing lot owners: he immediately announced the release of 8,000 ha from the 84,000 ha under commercial fishing lots in Siem Reap province. By February 2001 the government agreed to release a total of 536,000 ha from the fishing lot systems for local community management (56% of the entire area under commercial fishing lots in Cambodia) (Evans 2002). Although no law was in place to support such a reform, the PM wields enough power to mandate such a change. Immediately a new department, the Community Fisheries Development Office, was created within the Department of Fisheries and staff was mandated to create 'community fisheries' around the country.

In 2002 there were an estimated 162 community fishery sites (McKenney & Prom 2002). This number is increasing: the Department of Fisheries now has 329 community fisheries sites

[5] Cambodian social relations take place within authoritarian, hierarchical constructs (see O'Leary and Nee 2001). For example, according to Buddhist thinking merit accumulated in previous lives helps to explain ones current social position. Therefore, those with power are thought to belong in power; fate at the hands of others is an accepted concept, especially in rural areas (Chandler 1993). Cambodia's language and institutions further support these notions of power, hierarchy, deference, hegemony and servitude. For example, it was only recently that words for society or consensus were created; however, there were many words for relationships among people including exploit, command, persecute, obey, honor and respect (Chandler 1996).

(according to a speech given by the director in early 2004). It is too early to evaluate the full impact of this fisheries reform[6], especially to consider if creating a plethora of community fisheries institutions actually enhances resource management practices or local livelihoods. With rapid implementation of community fisheries around the country i.e., creation of management committees and management plans, the quality of implementation has been poor, particularly in the development of community fisheries projects.

Unfortunately, much of the field level work related to community fisheries, or any other community based process for that matter, results in an extensive planning process (i.e., a management plan must be written, and approved, before any activity can begin) driven by outside facilitators who may or may not understand what it is that they are meant to be facilitating. There is an assumption that local people lack the 'capacity' to carry out such plans on their own, hence the plethora of trainings and capacity building exercises villagers may be exposed to. However, a critical question arises about whether such elaborate planning mechanisms are appropriate? Such policies appear to not be responsive to local needs or capacities.

Moreover, it is perceived by many government officials that villagers have 'low capacity' or 'limited skills and experiences for resource management'. The challenge, therefore, is how to break down such perceptions. One way is to get higher-level support for community based management processes; another is to create an environment that enables reflection to take place amoungst all levels. Cambodia's cultural context is largely unreceptive to bottom-up forms of decision-making or influence. Therefore, in the absence of cultural support or popular demand for it, Blunt (2003: 62) advocates that,

> "the best prospect for improving levels of participation lies in strong and unequivocal (authentic) direction from above that the local government system should engage with

[6] Blunt (2003: 9) notes that "systems of governance that are exported wholesale from the west and are installed in developing countries without due consideration being given to local conditions invariably fail – sooner rather than later. Establishing a good fit usually requires that indigenous decision makers are sufficiently well informed to make judgments about the appropriateness of outside help that is on offer, and not moving too far too fast."

communities in this way, combined with incentives that are directly tied to this form of engagement".

CONCLUSION

Government institutions are rapidly adopting community based management approaches from a policy perspective at least (at this point field implementation remains limited). The fisheries reform is an example of this. Although there has been little research analyzing the usefulness or sustainability of any of these approaches, it seems that few projects are able to adapt themselves to really support community needs. "We have made so many plans, but our forests continue to be cleared and our fish are less and less," complained one villager from Pursat (Marschke 2004). When policy and plans are driven from Phnom Penh, where many government officials and project counterparts are based (as is generally the case), this does not ensure that a local community is making the best choices or is working on realistic resource management strategies. Community based management is 'messy' and requires an openness to problem solving.

There are, however, some insights that can be drawn from community-based management projects that have 'on the ground' experience. For example, learning around resource management issues takes place at a household level, a village institutional level and, in some cases, a broader village or commune level in both more traditional fishing villages and in newer in-migrant villages. Villagers are engaged in resource management strategies, some which evolve over time i.e., painting crab traps with spray paint and then switching to oil based paints. Project counterparts, often helping to facilitate such a process, learn a significant amount in this process i.e., needing to question their initial assumptions about what villagers know and to learn to listen and respect local knowledge. An active dialogue enables individuals and teams to discover what the possibilities of change can mean (Friedman 1973). However, such an approach takes years of field visits, trainings, exchanges and trying out different activities to foster.

Villagers are constantly learning and adapting to their local context. Resources are depleting, policies are shifting and villagers constantly renegotiate their management practices and

priorities. Having a history of resource management in a village certainly helps to sustain such practices; equally important, severe resource declines can force villagers to 'do something' to secure their livelihoods. Villagers are able to reflect, and to learn from their mistakes. Moreover, they recognize how integrated they are into a global economy. As one fisher from Siem Reap province aptly noted,

> "we are linked into the world, and donors now have money for the environment. While sometimes this is a new way of thinking for us, if we think about our homes and what we do, it makes sense that we have to take care of the fish and the forest. I am just very sorry that those with power do not see the importance of this" (18 March 2004).

Adaptive co-management is about creating a process that brings different levels on board, helping stakeholders to listen to each other and to learn together. There is a role for donors and international consultants to play in these processes, just as there is a role for high-level officials. Indeed, such backing and political support are a key ingredient for successful community based management since project counterparts also need to know their work is supported! Yet, when it comes to actually implementing community based management 'on the ground', it takes a team of people committed to problem solving and working consistently on issues with different partners. The work of these two resource management institutions, and the projects supporting this work, indicate that resource management can work in the Cambodian context providing adequate networking and constant facilitation between levels in built into this process. Most importantly it takes villagers who are willing to take risks and dedicate their time to resource management activities.

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