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# Institutions in the Mekong Delta of Cambodia - Findings from a situation analysis

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## ABSTRACT

This paper focuses on property rights and collective action in the Mekong region of Cambodia. Institutional arrangements in water management for community-based aquaculture in two villages in the Mekong area of Cambodia are described.

The region is characterized through various forms of institutions. Various groups have access to the resources and use them in various ways at different times, which give the water resource system a multiple use character.

This paper presents a situation analysis of water management in Cambodia and starts with a general introduction into the Cambodian history of land tenure and water management. Furthermore, institutions for water management in two villages, including rules and regulation as well as water distribution patterns will be described.

Conclusions summarize the findings and show challenges for future interventions of the "CGIAR Challenge Program on Water and Food: Community-Based Fish Culture in Irrigation Systems and Seasonal Floodplains" in community based aquaculture in Cambodia.

#### INTRODUCTION

In 2005, the WorldFish Center initiated the "CGIAR Challenge Program on Water and Food: Community-Based Fish Culture in Irrigation Systems and Seasonal Floodplains" in three water basins, namely the Indus-Ganges (Bangladesh and India), Niger River basin (Mali) as well as the Mekong Delta (Cambodia and Vietnam). In Cambodia, the project is managed through the Inland Fisheries Research and Development Institute (IFReDI)/ Fisheries Administration (FiA). In this context, research on institutional arrangements and technical options for community-based aquaculture is conducted in the Lower Mekong area of Cambodia. One expected output of the project is the identification of locally rooted institutional options for sharing benefits of integrating fish and other living aquatic resources (the WorldFish Center 2005).

Cambodian history evidently strongly influenced land and water tenure issues and thus collective action. In order to understand people's perceptions about water management and underlying conditions it is thus useful to consider the historical development of water and land management in Cambodia.

After independence in 1953, a general degradation of land access for Cambodians followed the initial colonial effort to privatise the traditional collective domains. Traditionally, an individual or household took what was needed for subsistence without hurting the collective rights of the community (Van Acker 1999), while the land belonged to the sovereign. During the French protectorate (1863-1953) the Cambodian Civil Code of 1920 aimed at a general registration and a national cadastre system. Thus, in contradiction to the traditional system "Kram", all unoccupied areas are considered as "free" and became available for sale.

With the launching of "Buddhist Socialism" in the mid-1960s a period of non-aligned state socialism and monopoly started. During this time, lowland Khmer were resettled and land was forcibly redistributed. Then, with the Khmer Rouge regime (1975-1979), all private property was abolished and all property records were systematically

destroyed. The entire population was marched out of cities and villages and reduced to slave labour in programs of public works and collective work-brigades (Van Acker 1999).

With the Vietnamese Invasion in early 1979, the system of the "Krom Samaki" continued with the collectivisation of property, albeit in a less forbidding format and allowing different levels of private property. In 1989, the government abolished collectivisation and reintroduced the private ownership (Van Acker 1999) and today, the decentralisation efforts of government aim at give power to lower level institutions.

Today, people are still uncertain whether their claims on property are secure, because the conflict settlement is still an ongoing process and different sources of land law are in force. Additionally, the social base in Cambodia is still fragile and makes collective action a serious challenge. Institutional structure is still underdeveloped due to the extent era of military regime and corruption and power structures characterize the people's life instead of the legal system. National policy aims at registering land titles in the near future. However, until now only a few villages in the south-western part of Cambodia hold private land titles.

# SITUATION ANALYSIS IN TWO CAMBODIAN VILLAGES

The project, CPWF PN35 is conducting research in four villages in Cambodia. Thnal Kaeng and Potamoun are located west of Phnom Penh in Prey Veng province. Pom Eith and Chrouy Poan are located in the south-western part of Cambodia in Takeo province, close to the Vietnamese border. This chapter will focus on institutions in Thnal Kaeng and Pom Eith village.

## Water management in Thnal Kaeng

Thnal Kaeng village in Prey Veng is located next to Boeng Khei Reservoir. Thnal Kaeng consists of 98 households and was part of an earlier CARE Cambodia rural development project which supported the establishment of a Water User Group (WUG) as well as pond culture.

The Boeng Khei reservoir in Thnal Kaeng was built during the Pol Pot Regime in 1975. In 2006, CARE Cambodia offered a Food for Work Program for the renovation of the canals as well as for the road leading south to the national road. Within this program, there were two sluices built as well.

The reservoir is an important water source for irrigation as well as for all other household activities (cooking, washing, drinking, bathing, soaking, etc.) in the village. The reservoir is 900 m wide and 2800 m long. Three sluices are connecting the reservoir with downstream canals. Two upstream canals allow water flow in for further storage. All land south of the reservoir is fed by the two canals heading south. Since 2006, two newly built sluices regulate the water flow for Thnal Kaeng and thus also influence water levels in the downstream Potamoun reservoir.



Fig. 1. Boeng Khei reservoir, Thnal Kaeng village

The reservoir is accessed by nine different villages from Pean Reang and Svay Chrum communes for irrigation purposes. However, about six different communes and more than 700 households have access to the reservoir and use it as a fishing ground. Thnal Kaeng village can be considered as the main user, while the village builds a strip settlement along the reservoir.

In Thnal Kaeng no cadastral survey was undertaken until now and people have no secure property rights for their land holdings. Legally, all agricultural land in the reservoir is state property and belongs to the Cambodian government and only paddy fields outside the dyke are privately owned (without land titles). People have held use rights on agricultural land in the reservoir for a long time already, but are aware of the fact that the government can claim the land back. As the reservoir usually holds water for the whole year, it is recognised as a public good, where everybody can have access during the whole year. In fact, it is an open access situation as rules and regulations concerning the resource use are not legally enforced.

In Cambodia the government established Water User Committees (WUC) on a commune level, which are responsible for water management issues in their communes. The villages in the commune are represented in the WUC through two to four village members, which were selected by the villagers. The WUC in Svay Chrum commune thus represents approximately 770 HH. In Thnal Kaeng the village head as well as another villager are the representatives in the commune-wide WUC, which has only operated since 2006. The WUC is lead by the commune head. On a village level the village head leads the Water User Group on the village level (WUG) established by CARE Cambodia. There are six Kroms<sup>1</sup> in Thnal Kaeng, with each Krom leader being represented in the WUG.

<sup>&</sup>lt;sup>1</sup> A Krom is an administrative entity underneath the village level. All villages in Cambodia are further divided into several Kroms with each having his own Krom leader

Water is used according to needs. Villagers must request that the sluice is opened (or closed) to the WUC, the WUC will inform the village chief of Thnal Kaeng village and he will then operate the sluices according to the order of the WUC. This procedure is the same for all villagers further downstream as well. When the southern Potamoun reservoir is not having enough water for irrigation, the villagers will ask that the Thnal Kaeng village chief is informed, who will then open the sluice and let water flow into the downstream reservoir. This is usually requested twice a week.

There are rules and regulations concerning the use of the water resource according to national policy. Thus, there are restrictions on the type of fishing gear, whereby electrical fishing gears as well as fine mesh nets are not allowed to be used. Furthermore, there is a restriction on the size of gill nets, seine nets and arrow shaped trap nets. There are no rules concerning the amount of fish that can be taken out as well as no time or fishing area restrictions.

People are informed about new rules through the Commune Fisheries Office and the police. There are no written rules and regulations, but there are village meetings, where the advantages of rules and the penalties are explained to the villagers. During these meetings the use of legal fishing gears is also explained. These meetings are once or twice a month.

The Commune Fishery Office and the police are responsible for monitoring, exposing and fining the use of illegal fishing gears. Thus, the village head does not have the legal right to fine the offenders, but he reports his observations to the commune head and the police. Because of the size of the water resource, offenders are seldom caught.

#### Water management in Pom Eith

Pom Eith today consists of 133 households. In 1973, the villagers were forced, by the Khmer Rouge, to move away from the village and they had to live next to the mountains nearby. In 1975, the villagers moved back to the village. The village has access to Tunloub reservoir, which is southern-west part of a larger system of a total four reservoirs north of the village. All together there are five communes using the water from the reservoir, and there are nine villages alone in Prey Ampok commune.

On the eastern side the reservoir is bordering the national road No.2; built in 1976-1978 heading from Phnom Penh southwards to Vietnam. The road thus separates the paddy fields lying west of the road from the direct use of the reservoir, but farmers owning these fields are connected to the reservoir through a sluice. There are five sluices and one culvert, which were renovated in 2004.

The reservoir is used for rice cropping as well as for fishing and other household activities like bathing, draining animals, drinking water, washing, etc. It is fed through rain water as well as through the Mekong River which starts swelling soon after the rainy season started. All agricultural land lies in the reservoir. On average people in Pom Eith have five different plots.

After the Pol Pot regime, when land was collectivized, the village experienced another expropriation in 1983/84, where land became public property again. In 1989, government then abolished collectivization and redistributed land to private owners. In 2006, a cadastral service was undertaken in Pom Eith, thus it is one of the first villages that were able to officially register their private land titles.



Fig.2. Tunloub reservoir Pom Eith, village

However, the water resource faces an open access situation during wet season, which starts in June. Everybody, including non-community members is allowed to use the reservoir for their own purposes and come for fishing. There is no restriction on the amount of fish caught; however the use of illegal fishing gears such as electric fishing gears or fine mesh nets is prohibited. The Kiri Vong District police officer is in theory responsible for monitoring of and imposing fines on people using illegal fishing gears. However in practice, the monitoring of illegal fishing in this area stopped in 1996.

Similar to Thnal Kaeng, there are also meetings in Pom Eith organised by the commune head and the fisheries officer in order to introduce new rules and regulations to the villagers. Villagers are not involved in any decision making about rules and regulations, they are only informed by the fisheries officer.

There is a Water User Committee (WUC) in the Prey Ampok commune as well as a Water Resource Office (WRO) on district level. It is the WRO who decides about the management of the sluices. When villagers want sluices to be opened or closed they have to ask the WUC, which then will ask for permission from the WRO to open and close it.

In the reservoir there is no regular monitoring of water quality, fish abundance or the use of illegal fishing gears. The village head himself has no legal authority, but is supposed to report to the commune head, when he observes someone breaking the rules. Only the fishery officer and the police are allowed to sanction and are

supposed to coordinate their activities. However, villagers report that the use of illegal fishing gears can be regularly observed.

# **CONCLUSIONS**

Cambodia has a wide variety of water rights systems and a wide variety of water allocation systems in local areas. Property rights change according to the season and land is considered to be private land during dry season and public land/open access during wet season. The two reservoirs do not possess clearly defined boundaries.

Although the Cambodian government established Water User Committees, not all water users of the water resource are represented in the same institution. Thus, intercommune coordination becomes a serious challenge, although the water resources in Cambodia are most often shared between communes. In Thnal Kaeng, two communes share the same reservoir, but they are not represented in the same committee and there are not meetings in order to coordinate water management between the two communes. Similarly, not all downstream user villages are represented in the committee. They are again represented in another WUC and there are no meetings held for super-coordination between these committees.

There are no formal or informal institutions concerning the coordination of fishing activities and the access to fishing grounds on a local level. Although, there are restrictions on the type of fishing gears, the amount of fish and time spent fishing is not restricted. Furthermore, there are no rules protecting breeding areas. The existing rules and regulations are not written down and the information of villagers about new rules seems to be very informal and spreads through mouth-to-mouth propaganda. Villagers in Pom Eith reported that they feel confused about and even threatened through the penalties they are informed about.

The monitoring, exposing and fining of the use of illegal fishing gears through the Commune Fishery Office and the police must be considered as ineffective as villagers report regular illegal fishing practices. Usually, people are aware of the number and people who use illegal fishing gear, but face difficulties to convict the offenders due to a lack of presence of responsible staff as well as due to a fear of revenge.

The CPWF PN35 faces several challenges in future project implementation. An indepth analysis of local level institutions in fishing and water management is necessary in order to better understand the different local water user schemes. Broad based analyses will be necessary to understand by whom and how the resources in rural areas are used and more applied research is advisable to better understand the complex livelihood strategies of the poor and the key role of land (Kirk 2004).

Collective action can be considered as a new model for Cambodia fish culture and thus small-scale approaches might be appropriate in order to avoid more complex coordination problems within the groups. During the Khmer Rouge regime, Cambodians were forced to work collectively, but never appropriate a benefit from this collective work. Thus, "real incentives" for investments in a common good and collective action must be created.

However, most important will be the facilitation of community-based aquaculture on a local level as well as a long-term support through several institutions. Rules and regulations as well as monitoring/sanctions systems must be established by the resource users. Furthermore, conflict resolution mechanisms will be necessary and must be developed over time. Adaptive learning should be the main component in project implementation as experiences in collective action are low at a local level in Cambodia and the possibility to learn and develop community-based action should be encouraged and facilitated on a long-term basis.

It will also be essential to create linkages to other (higher level) institutions, embedding local institutions in a framework of governance, in order to ensure high level support for a sustainable collective management of local water resources in Cambodia.

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