

Sustainable Livelihoods of Local People in Community Fisheries, The Upper Mekong River Cambodia, Stung Treng Province

**A Case Study “Au Svay commune community fisheries”,
Talaborivat District, Stung Treng Province**

(Full Paper)

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General problem fishery in Cambodia

Fish and fishing rights are the life of the Cambodian poor. Equitable and just distribution of these resources with the long-term limited management is how 85 percent of Cambodian people in rural areas maintain food security¹.

Cambodia is rich with fisheries resources because she has huge flooded plains along the length of the Mekong River, around the Tonle Sap, the northeast, and the south of Phnom Penh city. These flooded plains are important habitats for national fish and spawn. The seasonal movements of fish occur between these flooded plains, spawning habitats in the Mekong River, the northeast rivers of Cambodia and the south of Laos².

Freshwater fishing production in Cambodia ranks fourth in the world and each year the amount of catch is approximately 300,000 to 400,000 tons.

Approximately 85 percent of rural populations rely on natural resources for their daily livelihoods. The government declared that these resources belong to the state and freshwater fisheries resource management is organized into fishing lots systems³.

But the fisheries resource of Cambodia continues to decrease alarmingly. Since 1987 because of the growth of modern fishing tools, flooded forests destruction, illegal logging impacts on fisheries resource and the inability of technical officers in law implementation.

¹ Agree Report under the international pact on socio-economic and culture right

² The overview of freshwater fishing management in Cambodia – first page

³ Fishing tools ranked as small scale, medium, and big based on potential, size and enable fish catching

Fishing exploitation by using illegal tools not only destroys fish resources but it also creates a bias towards violent conflicts between rural communities, and violent between fishing lots implementers and violators. There is a lack of mechanisms for preventing the use of illegal tools as well⁴.

These conflicts started from 1987 up to 2000. Protest of the local people against the violators was very strong between 1997 and 1999 made the Royal Cambodia Government reformed policy on the decreasing fishing lots in 2000 and rehabilitated those fishing lots.

A part from Stung Treng province, fisheries resource management is not practiced through fishing lots system. The government and The Ministry of Forestry and Fisheries, MAFF, integrated this area as a protected fishing border because it is the most important spawning habitat of national fish and also the place that provides fish babies to the Tonle Sap area and other lower plains of the Mekong River.

I. Introduction:

The Cambodia province of Stung Treng is located in northeast Cambodia and form a northern boarder with Lao PDR. Forestrys, rice fields and river dominate the land cover of Stung Treng province. The total population is about 95,184 people, comprising 47,219 males and 47,966 females. The province consists of 5 district (Stung Treng, Talaborithvat, SeSan, Siempang and Siembok district), 34 communes and 128 villages.

The Mekong River enter Cambodia in the north of the province and at Stung Treng town, The Sekong River flows into the Mekong and Srepok.

Au Svay commune or Borey (city) Au Svay is located along the length of the Mekong River near the Cambodia – Laos border. This Borey was established on January 01, 1964 under the preparation of Samdech Norodom Sihanouk who sent retired soldiers to live there to protect the border. At first, there were only 19 soldiers who lived there. But 6 months after, Samdech Norodom Sihanouk sent people from provinces such as Ta Keo, Kam Pot, Prey Veng, Svay Rieng, Kampong Speu, Kandal, Kratie, Kampong Cham and the lower Khmers (Khmer Kampuchea Krom) as well as 300 families of retired soldiers including a company force number 2 as well⁵.

Borey Au Svay nowadays has five villages includes Koh Phnov village, Au Svay village, Au Run village, Voeun Sean village and Koh Heb village. This fives villages have a total population of 445 families and 2339 people⁶.

For many years the local villages used traditional gear to catch fish, wild animal and harvest other resource. But at the present time, with the trend toward a free market economy in Cambodia, privatization policies have been threatening culture values and

⁴ Agree Report under the international pact on socio-economic and culture right

⁵ Participatory Natural Resource Appraisal of Cultural and Environment Preservation Association Report 2001

⁶ Data and Administrative Statistic of Au Svay Commune

have lead to a rapid degradation of the natural resource base. Due to these problems, many people have been prepared Fisheries Communities in 2000.

If we travel along the Mekong River to Au Svay commune it takes 43 Km and if we travel by national road number 13 it takes 60 Km. Waterway is difficult and very dangerous to travel because the water flow is very strong and has deep holes that make the water knot or whirlpool. Even the waterway has a lot more difficulties but the local people decide to travel it anyway.

II. Goals and Key Questions of the Research:

The first goal of this research is to provide additional information and experience related to sustainable natural resource extraction for Au Svay commune community fisheries to government institutions and NGOs to implement in other communities fisheries in the Kingdom of Cambodia. This work can benefit people who live in other communities considering natural resource protection, and building and planning to develop community for the future. The second goal is to compare living standards and situations of people in that area, before and after communities' fisheries creation. This research provides deep understanding about resources that people used to rely on for their traditional livelihoods, community organizing to create communities fisheries, and the finding markets for existing resource by developing community economy. The specific objectives of the research include the following:

- Understanding natural resources that people depend on for developing the family's socio-economy in Au Svay commune;
- Understanding the effects of community based management on local livelihoods in that area;
- Finding out recommendations for policy framework and proper program planning for relevant government institutions and NGOs that work on the fisheries sector in Cambodia and
- Figuring out problems and some more topics for the Environmental Activists of Culture and Environment Preservation Association (CEPA) in research related to local sustainable livelihoods;

In order to see if these goals were achieve we focused on some key questions:

- What is the importance of fisheries and natural resources to local livelihoods and people's work?
- What are the effects of extraction of fisheries and natural resources on local people?
- What are the benefits that local people get from community fisheries creation?
- What are the roles and policy support of technical institutions, authorities, and NGOs in community fisheries management in order to ensure sustainable use?

3. Research Methodologies:

This research was followed a general theory that is; the situation of people who depend on natural resources (fisheries, forestry, wildlife etc...) in Au Svay commune which is

changing because of population growth and the needs of economic development in Stung Treng province. Further more, this research raised a hypothesis that the style of land use in Au Svay commune also changed because the government gave 7400 hectares of forestland to Potato (*Manihot esculenta*) Powder Co. Ltd to manage; this land has some local people's rice field in it as well. Therefore, local people try to find new occupations and incomes emphasizing fishing. This research also predicted that the growth of flooded forests and birds would be increased in the future. At the same time, government institutions and NGOs might have the important role in protecting the balance of sustainable natural resource use in that area.

Methodologies were used for research are analysis and comparison the living standards, and fisheries resource and other natural resources from one community to other community to determine major factors of sustainable natural resource use.

Researchers also used semi-structured interview questionnaires to collect both qualitative and quantitative data from different sources - one is family interviews and the other is group interviews. For family interviews; families were selected based on situations – rich families and poor families partly selected by village chief. For the group interviews; groups were organized in 5 villages (Koh Phnov, Veoun Sai, Koh Heb, Au Run, and Au Svay) in order to measure different ideas in terms of experience and understanding of men and women in natural resource management. Researchers also wanted to ensure women had enough opportunity to provide ideas themselves because in general men always talk more than women in mixed groups.

Researchers also interviewed technical staff, authorities, and NGO staff, which work in that area. They provided essential information related to fisheries and natural resource protection of the community, in particular, criteria, regulation, planning, and preparation and work implementation in Au Svay commune.

Research Limitations:

During 2 months, researchers interviewed families fairly more often, talking to 18 families in each village that represented the whole village. Interviewing 5 communities among 52 communities in Stung Treng province cannot explain widely for all people in 52 communities. But the interviews done by the research team expressed some points that are important for future strategies of developing other community fisheries in other provinces within the country. It can benefit future research as well. Nevertheless, integrated information can be integrate with past researched in libraries related to community fisheries development in Stung Treng province, especially information from the PNRA (Participatory Natural Resource Appraisal) of Culture and Environment Preservation Association), Oxfam, CAA and the Fisheries Office locally based.

The research emphasized on how to use fisheries and natural resources in communities in order to meet the long term use and changing occupations besides relying on fisheries resources. More importantly, it was emphasized that law implementation is need to protect fisheries resources as well as other natural resources (forest, wildlife, land, etc.).

4. Outputs and Analysis:

The outputs from this research are given as below. The aspects analyzed are: natural resource use, natural resource management, ability to find income of local people before and after community fisheries creation, and the roles of technical institutions, authorities; and NGOs in natural resource protection in Au Svay commune with some obstacles that the local communities have met in management.

4.1 Fishery uses and natural resource management before created communities:

From 1960 when Au Svay was created, natural resources in the area began to be depleted from continual loss due to the actions of people that inhabit in that area. All the people in Au Svay depended on fisheries and forestry resources as a second main occupation after rice field and Chamkars. The destruction of fisheries and forestry resources in Au Svay commune was strong between 1995 and 1999 due to the laws that were still lacking, there were corruptions, and the law implementers were limited; and this had caused opportunities for groups of powerful men to extract resource in that area considerably⁷. As for the local people who are the owners of those resources; they didn't have enough right⁸ to extract the benefits from these fisheries and forestry resources. Violations between 1995 and 1999 included taking fish by force, dynamiting, fish poisoning in the big pit area where the place for mother fish live. The uses of illegal tools have made the fish along the Mekong River close to the Cambodia – Laos border decrease a lot (before they could catch 10 Kg of fish per night but now only 2 Kg per night⁹). This decrease made it hard for people who use traditional fishing tools such as Chan, hook, traps, and nets to support their families and livelihoods. Because the government doesn't widely provide legal right to resource management, 50 percent of people in that area decided to buy illegal fishing tools such as electric shockers to poach the same as violators and powerful men to support their families. 60% of people in Au Run have electric shocker tools¹⁰.

Between 1995 and 1999, the rights of community forest resource use, was prohibited/censured from forest concessions and land concessions because the government let them to collect resource and manage¹¹. Before go to find non timber forest products such as mushroom, traditional medicine for livelihood and curing deceases they have to ask permission from forest guards while before they can go inside freely to find non-timber forest products¹². Moreover, people that have rice fields in land concessions area cannot come in to do rice field because the concessions proof that those rice field and forest belong to them¹³. 7400 ha forestland that government gave to that Potato Company Limited located in Au Svay commune surrounded forest. Nowadays, because there are protests from local people, the company decided to cut the 1200 ha of

⁷ Showing of local authority in five villages in Au Svay commune, 2001

⁸ Sub-decree number 33 Kro To issued on May, 09 1989

⁹ People in Au Run described and exemplified while interviewing

¹⁰ Showing of chief of Au run community fisheries

¹¹ Interviewed people in Au Svay

¹² Describing of people in Au Svay village

¹³ Raising up of five villages of Au Svay commune that used to depend on forests resource

rice field back to local people but they didn't accept this cutting because their land is bigger than that¹⁴.

4.2 Sustainable use of fisheries resource after creating community fisheries

After the large protests of fishers within the country against the lots owners and powerful men who violated law and extracted resource for serving their groups benefit only, The Prime Minister Hun Sen declared to cut 56 percent of the total fishing lots border within the country to local people to manage by creating community fisheries in 1999. There was also an announcement of the disciplinary measure to manage and to get rid of anarchy in fisheries field¹⁵. Fishers' in many villages and communes organized community fisheries management.

For Stung Treng province, community fisheries creations have occurred since 1998 before the government reformed fisheries policy. These communities' creations are under the facilitation of Stung Treng fisheries department with Community Aid Abroad Oxfam in Australia¹⁶. As for 6 villages' community fisheries in Au Svay were set up in 2000 under the facilitation of Culture and Environment Preservation Association, CEPA.

Nowadays, there are 52 communities in Stung Treng, 47 of communities located along the length of the upper Mekong River and 5 more of them located in the length of SeSan River. CEPA facilitated 18 communities' fisheries, which located in 2 districts in Stung Treng province – Talabavat district and Stung Treng district. The Stung Treng district is in the RAMSAR site, which close to the Cambodia – Laos border. And 43 more communities facilitated by Oxfam CAA and Stung Treng fisheries department¹⁷.

For 5 communities' fisheries in Au Svay commune, CEPA co- facilitated with Stung Treng Environment Department as well as the Ministry of Environment.

The research outputs showed that after the creation of communities' fisheries; fish product is increased. "Before created communities fisheries fishers' could catch only 2-4 Kg of fish but now they can catch from 5-8 Kg/night in May¹⁸ (A fisher in Au Run village, 2003)". Fishers' have enough right to sustainable extract fisheries resource for livelihoods and supporting families. They respected the community criteria, which recognized by local authorities and technical institutions.

Violations were combated 80% by patrol forces of community fisheries in fishing area. 20% left that still violate the law are the fishers' come from outside commune or district; they don't have knowledge of community based fishery resource management yet.¹⁹ 60%

¹⁴ Showing of Stung Treng provincial authority and director of department of agriculture in January, 21 2003

¹⁵ The announcement number 2 Bro. Ko. of the government issued on May, 10 1999

¹⁶ Annual Report 2001 of CCA

¹⁷ Annual Report 2002 of CEPA and Oxfam CAA

¹⁸ Mr. Kong Vuthy, Fisher in Au Run village, Au Svay commune, January 2003

¹⁹ The answer of violators that the community arrested to advice and sign a contract not to do the violation again

of people in people communities that used to use illegal tools such as battery shock in fishing they now abandon those tools and fish by using tools that limit by community instead.²⁰

During the last 2 years, after the creation of communities' fisheries, we see that local people in the upper Mekong River had knowledge on fisheries management and community based natural resource management.

The fish resource also increased proudly (before they could catch only 3 Kg of fish per night but now they can catch 8 Kg/night)²¹.

According to villagers,

Now, we can find income 8000R/night while in the past we could earn only 4000R/night²² (90% of families that depend on fisheries resource after the rice field and Chamkar (plantation), 2003.)

85% of the population in 5 communities' fisheries in Au Svay met the food lacking for five months annually for livelihoods and occupation. They can discharge to meet the needs of the year by fishing, collecting NTFPs, and vegetables as well as traditional medicine. Among these occupations, fishing can fill the lacking for 4 months²³.

According to in Communities fisheries that were interviewed,

15% of flooded forest of the total forestland is the increasing forest; although we do not have data to express yet, but the increasing of the flooded forests in community has made fish and birds increase as well (72% of population, 2003).

The increasing of fish product in communities' fisheries is very important for multiplying income and livelihoods in Au Svay commune. Due to the income increase from fishing made 45% of children in the poor families who did not go to school²⁴ before because of their livelihoods now 22.5% of them have chance to go to school. Data expressed that 50% of children that did not have chance to study now they have because there are communities fisheries now. And NGOs and the government also support infrastructure such as school from.

Fishing product and intensify product of fishers' are taken out to sell at Voeun Kam market in Laos (this market is close to Cambodia border). For fish price, agriculture price and goods price that are sold in the market are limited by Laos's customers²⁵.

The research showed that 70% of productions that villagers use are bought from Voeun Kam market and the 30% left are bought from Stung Treng province. 40% percent of women participate actively in communities fisheries work such as participate in creating

²⁰ The answer of all people in Au run village

²¹ 90% of fishers' in Au Svay commune provided this answer

²² Nature and life Newsletter number 52, July-August 2002

²³ Au Svay commune authorities showed the lack problems of local livelihoods in 2002

²⁴ Authority Communal Report 2002

²⁵ 90% of interviewers provided this answer

the regulation and criteria of communities. In addition to this, 2 women are voted to stand as community commissions in one community that has 5 commissions²⁶. Besides management women also actively participate in fishing for supporting families after taking care of children. By receiving successful in community based fisheries resource management, people in these 5 villages of communities fisheries have initiated to create community forestry for preventing and demanding their 7400²⁷.ha rice field and Chamkar (plantation) back with the right of going inside to collect NTFPs in area that the concession managed. As a result, concession and government recognized and gave 1200 ha of land to local people back and appease by letting local people to do the rice field and Chamkar and collect NTFPs in the area that they managed. Before, there had no solutions like this. Researcher also found one problem in Au Svay. This commune can create Eco-tourism community because that area rich with natural resources such as waterfall, coral reef, beach, forest, wildlife, flooded forest and fisheries resource that can attract tourists to visit there easily²⁸ Researcher also seek one more problem that is 60% of the total population use Laos language and have only 40% of them use Khmer language in general speaking.

4.3 The role of Fisheries Office in Stung Treng:

Fisheries office is a relevant institute that works closely with fisheries resource management. Because of having little staff (7 staff)²⁹ but there are a lot of waterways so that it causes difficulties in the implementation of monitoring, management, violation combating and communication with local people as well as NGOs. The director of fisheries office thought that sustainable natural resource management particularly in the upper Mekong River need to have cooperation with local communities, NGOs and relevant institutions to discuss for seeking a good and proper choice. The director of Stung Treng Fisheries Office thought that, communities fisheries creation is a good choice in reducing and getting rid of anarchy in fisheries field and he also said that communities fisheries is a key point of poverty alleviation and sustainable use. For problem related to disciplinary measure protection, management and fisheries resource sustainable use, he also demonstrated that Fisheries Office has role as facilitators in communities fisheries creation for local people by cooperating with NGOs, to monitor, to straighten direction for local communities to work on the way that they has approved into institution, and to promote local communities to avoid stream closing, to get rid of fish shocking and create fishing farm, increase communities fisheries and ask to release at once in endanger fish such as Kol Reang fish, Riech fish , and Tra Sak fish.

4.4 The roles of Department of Environment in Stung Treng Province:

Department of Environment directly manages this RAMSAR site and cooperated with relevant institutions, and NGOs such as CEPA to facilitate in communities fisheries creation for local people to make a sustainable resources management in locally base.

²⁶ Culture and Environment Preservation Association Report 2002

²⁷ Resettlement Action Network Report 2002

²⁸ The ideas of 90% of interviewer and Department of Agriculture, Environment, and Tourism Report 2002

²⁹ Interviewed Director of Fisheries Office 2002

For policy in community-based management such as community fisheries, the director of Department of Environment has the same mind as the director of Fisheries Office and CEPA - that is - community based fisheries resource management has a large benefits and it also a right providing to people to manage natural resource effectively that ensuring of long term use. After having communities' fisheries for 2 years, we see that the communities combat every violation that used to have before and the fisheries resources are started to increase, which is a point to improve living standards of local people reality. Especially, the community criteria have limited to use the right and legal tool. That this factor determined a long-term of fisheries resource uses for the next generation benefits. Not only this, community based management reminds people that they are the owners of natural resource and make the violators afraid of committing violations.

5. Obstacles:

According to the research, although community based fisheries resource management is successful but it also meets some obstacles such as the knowledge of local people approximately 15% on is limited. As for fishing violations still left – fish shocking .

(conclusion of local people and relevant institutions, 2003). One more obstacles for these community fisheries is that there is no sub-decree or law to let people to create community fisheries as well as community based natural resource management creation (up to May 26, 2003). During the past people could create community according to the announcement speech of the leaders such as Prime Minister, duty prime minister and minister of Ministry of Environment³⁰.

18 private fast boats that use cars machine³¹ (up to August, 2002) are driven from Stung Treng to Voeun Kam close to the Cambodia – Laos border also a big obstacle in community development. It contributes to disturb fisheries resource because they make the water rumble so that it disturbs fish living and spawning. Their noise pollution can hear 15 Km, which disturb local people and makes wildlife panic-stricken as well.

Research revealed that community fisheries do not have enough fund to spend for other issues such as buying petrol to fill the boat machine for patrolling; and the cooperation between technical institutes and community still limited.

These are the obstacles inside community. As for the obstacles outside communities are the influence of ship project from China to Laos and other big dam projects along the length of the Mekong River, and other big project that existing along the Mekong River also can impact to local livelihoods and sustainable of fisheries as well as natural resource existed along the Mekong River.

³⁰ The speech of Prime Minister Hun Sen and leaders in some ministries (2000-2003)

³¹ Stung Treng Port Report 2002

6. Conclusion:

Community based fisheries resource management is really effectively that can ensure the sustainable of long-term use, in addition to promote better living standards of local communities who can live in a proper condition as human beings. And it makes the local communities getting right as the owners of natural resources, although there are still obstacles occurred.

People live in communities benefit from communities' fisheries differently based on physical geography that they live. In fact, the people live nearby the river benefit economic sector more than people live far from the river.

7. Recommendations:

Researchers believe that the Royal Cambodia Government, technical institutions and NGOs can rehabilitate benefit and promoting more good cooperation with the local people as well as NGOs in order to additionally promote our community to meet sustainable and long term use of the natural resources for the next generation. These recommendations below were organized in the objective of rehabilitating ongoing good cooperation.

- Government and NGOs should promote on fast issuing sub-decree on community fisheries creation and give chance for local communities to participate in the discussion; and they should accept prepared recommendations for integrated into sub-decree draft;
- Government and NGOs should continue to support fishers' who live along the length of the Mekong River because they don't create community fisheries yet;
- Providing more trainings related to fisheries resource management to local people to strengthen knowledge of local people and providing good cooperation with community in natural resource violation combating;
- Government and civil social organization should find ways to increase food production and income of local people by ensuring not to impact natural environment and fisheries production;
- Government and civil social organization should find the markets for selling fisheries production and intensify agriculture (orange, pineapple, jack fruit and NTFPs) for local people;
- Government and NGOs should provide credit in the lowest price for community fisheries to make them have ability to use this inputs to do small investment such as agriculture, chickens and ducks feeding;
- Provincial authority and institutions should take action in reducing volume of fast boat by putting nest in it;
- The Fisheries Office in Stung Treng should determines clearly about the forbidden places that not to fish such as the place that fish spawn;
- International Organizations should help the local people in fishing farm aspect; fishing farm development contributes importantly to preserve fish in natural limit. If the fishing farms increase, the freshwater fishing will decrease as well;

- Relevant institutes and NGOs help to train and educate people in river resource uses by experiencing as a study tour neighboring countries that are the real places and create community eco-tourism site to let people get money from this field to conserve and protect fisheries resource;
- Relevant institutions and NGOs should communicate with local people for developing, planning, and managing, and creating community based eco-tourism system project.

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