

# Case study

## Fish farming in tarpaulin pond, a new livelihood

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Written by Ngourn Eng

CRDT Stung Treng

Fish acts as a major component of the animal protein in the diet especially for people in rural area where they are able to catch fish from natural resources such as lakes, rivers or rice paddies and where beef, bacon and chicken are relatively more expensive. Rural people are very familiar with fish, yet they are not familiar with fish farming while today there are fewer fish to catch from nature due to there are many more people that mean too many fish have been taken from the water and on top of that, fish breeding grounds have been destroyed by people.

Hen Chea, a 65 year-old farmer in Koh Sampiey, a village lies along Mekong River, lives with his wife and 6 children. Like other farmers in the village, he supports his family by mainly producing rice and other crops such as corn, monk bean and grazing chicken and pig in subsistent way. He also grows vegetables near by the house. To have fish for his diet, he catches fish from the Mekong River which lies in front of his house. "During my time as a young man, there was lots of fish in this river. Now the amount of fish is not as great as before" said Mr. Hen Chea. In response to a question if he has ever done fish culture before, Mr. Chea said that he never does that before. This is his first time to have fish cultured in such small tarpaulin fish pond. He added "I had the idea of farming fish when I visited a friend of mine living in the other village. But to have such a big size of excavated fish pond like my friend's pond costs lots of money. I can not afford that."

Mr. Hen Chea recalled that in May 2008, CRDT introduced CBO establishment process and a method of small-scale fish farming to villagers in Koh Sampiey. Then a Fish Culture CBO was established and he became a member of the CBO since then. He said he was very interested in the method because it is easy to do and costs less money in comparison to big excavated fish pond. In addition, becoming a member of the CBO he gets support of a piece of tarpaulin and 200 fingerlings of catfish and was trained in how to prepare fish pond, release fingerlings into pond and how to feed the fish. The table below is the calculation of support he got from his CBO.

No.	Item	Amount	Unit cost(\$)	Total cost(\$)	Remark
1	Tarpaulin	1	27	27	
2	Fingerlings	200	0.05	10	
Grand total				37	

He took 15 days of his free time from field to dig a pond of 3.5m x 3.5m x 1.2m in the vicinity of his house. But it would take only about 3-4 days if he used full day to excavate. After digging the pond, he lined it with a piece of 6m x 6m tarpaulin. Then he used top soil to spread over the bottom of the pond about 0.15m, filled water in and waited about a week before supplying fingerlings into the pond. The table below is the calculation in average he contributes to his fish farming for the period of 4 months and half.

No.	Item	Amount	Unit cost(\$)	Total cost(\$)	Remark
1	Labor to excavate fish pond	3 days	2.5	7.5	
2	Expend on pumping water	-	-	8.94	Hire pumping machine and gasoline
3	Labor to find termite for fish feed	15 days	2.5	37.5	
4	Rice brand	30 kg	0.075	2.25	
<b>Grand total</b>				<b>56.19</b>	

He feeds his fish with termites or rice brand, which are available in his village, three times a day. He leaves home to work in his paddies early in the morning. His children are responsible for feeding the fish in the morning. He comes home for lunch, and then he feeds the fish before he goes back to the field and in late afternoon he comes back from field with some nests of termites to feed his fish.

He has harvested about 1.5 kg of fish from his pond for home consumption so far. He plans to harvest the fish for home consumption and for sale in August and September, the period which lower amount of fish can be caught from the river and villagers are busy with rice production. He said he will save some money to afford fingerlings for the next time of his business.

From his point of view, growing fish in this kind of pond is easy. He just takes some of his time to do and it compensates him with fish for his family's diet. It does not mean he stops catching fish from the river but at least he is less dependent on the becoming scarce fish of the natural resources and he can save some money or make some income from the surplus fish for his family.