

## **Cambodian Rural Development Team (CRDT), Kratie Province**

### **Background information:**

The Cambodian Rural Development Team (CRDT) is a Local NGO established in 2001 by four student founders from the Maharishi Vedic University (MVU). The idea emerged when they finished their Project Management Course in the campus. CRDT implement its development projects to improve the living standard of subsistence communities while supporting environmental conservation. CRDT works in four provinces, namely Kratie, Mondul Kiri, Stung Treng and Kompong Speu, with total coverage in 6 districts.

In Kratie province, CRDT covers 17 villages, in two communes in Sambo and Chhlong districts which benefit a total of 2000 targeted poor households. Existing programs included agricultural production techniques (such as SRI, home gardening and mushroom growing), small livestock (chicken and duck raising and pig production), integrated fish ponds, bio-digesters, water and sanitation programs (such as rainwater collectors, open well and river pumps), saving groups, community development tour, nutrition promotion and community education and awareness on natural environment and resource management.

At the beginning of the FSSP program, CRDT's focus was very much on food availability and food accessibility in Kratie. Through participatory needs assessments in the target areas, CRDT found that most households faced food shortage problems because own rice production could generally only supply a household with enough food for 6-8 months of the year. Other problems included lack of vegetables for household consumption, poor access to safe drinking water and poor sanitation, migration and the destruction of natural resources ( from logging, illegal and over fishing in protective areas in the Mekong impacting on the Mekong dolphin and other endangered species). In addition, traditional methods of animal husbandry were not lowering the mortality rates of livestock nor raising incomes of the families that practiced them.

Realizing the above problems and constraints, CRDT decided to administer a set of integrated development projects that would address these problems as well as ensure that the area's natural resources were being used in a sustainable manner. Koh Phdao is one of target communities, in Kampong Cham commune of Sambo district, initially selected by CRDT in 2006 based on their proximity to the dolphin pools, their reliance on fishing, and their very low standards of living to provide livelihood development assistances, but also extended such project assistance to other target communities. CRDT supported the projects through providing both technical and physical resources for people to start their livelihood activities.

### **Contribution of FSSP to CRDT's work**

#### **Reasons for joining FSSP**

CRDT expressed an interest in participating in the FSSP project shortly after CCC first announced its launch in July 2006. CRDT recognized that they were doing very similar work and hoped to benefit from participation in the course. Their expectations included building staff knowledge, experience and capacity in food security projects as well as understanding government policies related to food security and nutrition, with the overarching objective of improving household food security in the communities they were working with. One senior staff member, Mr. Hean Pheap, Project Coordinator, was selected to be involved in the 18 month FSSP course.

## **How CRDT implemented what they learned**

The FSSP course introduced CRDT staff to many new ideas which assisted them in providing improved services to the communities that they work with. These ideas included:

- formalized concepts of food security and nutrition information
- community savings groups
- marketing agricultural products and identifying market chains
- agricultural cooperatives and farmer groups
- assistance in developing general strategies and offering technical assistance on agricultural produce, such as fish production, home gardening, system of rice intensification techniques, chickens production and post harvest techniques
- assessments on community food security, food use and utilization

Through the several FSSP workshops and field exchange visits, as well as follow up field visits, CRDT recognizes that it still has much to learn to improve both its operations as an NGO as well as its work at the community level. Mr. Pheap has always shared what he learned from the food security workshops and field visits to the relevant staff and implemented some of the above ideas to improve CRDT's programs in the community. As a result, CRDT has introduced new integrated projects in Kratie and Mondul Kiri provinces, including nutrition education and awareness, community saving groups and community development tour for income generation.

CRDT is also committed to improving existing program activities, such as expanding access to low cost safe drinking water and pumping systems and adjusting their program to align with Ministry of Rural Development's policies on water use (learned through a field visit to Neary Khmer in Siem Reap).

Since food security and nutrition are cross cutting issues, CRDT has also improved networks both in the community and the wider region. This has included establishing strong links with other FSSP participants, as well as the existing provincial networks and governance and support structures at the local level (commune councils, health center, village development committee and relevant provincial departments). CRDT also shared what they learned from the FSSP project to the provincial networks through provincial seminars.

## **Future plans**

In the future, CRDT plans to learn more about issues related to the second and third dimensions of food security - *food accessibility* (through agricultural cooperatives) and *food use and utilization* (through community nutrition education and food cooking demonstrations), as well as the main indicators to monitor and follow up food security and nutrition activities.

CRDT wishes to integrate major activities into its plan for 2008-2009 related to nutrition education and increasing the number of households to benefit from the food security project through conducting a needs assessment (safe drinking water, self help group, gardening, SRI, biogas etc) to introduce new households to these new activities.

They plan on working with the community to help improve rice production through SRI techniques, improve animal husbandry through establishing village animal health workers and using locally available resources as animal feed and improving nutrition through organic

farming (for example by introducing micronutrient rich vegetables such as Kangkong and other dark green leafy vegetables)

The below case study demonstrates how CRDT's work, through their participation in the FSSP training course, have contributed to the improved livelihoods of villages in Koh Phdoa village,

### **Best practice on income generation activities, Koh Phdoa village, Kratie province**

#### **Background information**

Koh Phdoa is a village located on the Koh Phdao island of the Mekong River, Kompong Cham commune, Sambo district, Kratie province, around 44km from Kratie Town. Its main market is Sambo market, around 8 km away and accessible by motorboat.



*Mr Mong's family in front of his poor thatch house*

Mr. Seng Mong, 38 and Ms. Pich Kim Srey, 35 are two of the target beneficiaries participating in CRDT's integrated rural development project. Mong and Kim Srey are a poor farming family with 3 children (one under five) living in Koh Phdao village and joined with CRDT's project in 2006.

Before becoming involved with CRDT, the family depended mainly on rice cultivation and fishing in the Mekong River. Their holdings of 0.5 hectare of rice land yielded too low production to supply the family with enough food year round and they were facing with rice shortage for 3-5 months of the year. The family was forced to sell some of their rice production to cover other expenses in the family such as social ceremonies, meat and clothing. Mong was able to sell his labor through house construction, but this did not earn enough to cover the shortage the family faced. Eventually the family accumulated debts amounting to 200,000R (around \$50.00) from a money lender in the village who charged a high interest rate (10% per month). Mong's family also had to borrow rice from a neighbor, however they did not charge interest on the loan.

The family also faced a lot of problems in the agricultural activities. They had no draft animals, lack of reliable and adequate income sources, problems with high rates of poultry mortality and lack of vegetables for consumption. Around 650 square meters of homestead was fallowed and produced very little vegetables in the raining season and nothing in the dry season.

### **Participation in CRDT's integrated community development project**

In 2006, CRDT with funding from Pro-Victimis Foundation and WWF Germany provided support to the family to improve their livelihood and food security. Mong wanted to get involved in the activities because it offered them a chance to increase the family's income through their existing resources and thus to improve their overall situation. It was also a chance to contribute to the conservation of natural resources in the region, especially the Mekong Dolphins and other endangered species in the Mekong.

After conducting a household needs assessment using the participatory approach, CRDT learned that Mong's family had a potential resource in their availability of homestead land that could be used for home gardening, fish ponds, animal raising and other agricultural activities. The family also had availability of labor and displayed a commitment to and interested in homestead food production. CRDT invited Mong to participate in several trainings and field visits on family fish raising, home gardening and chicken raising with a special focus on practical applications such as cultivation techniques for vegetable gardens; pond preparation; fingerling selection; feeding, care and sanitation in fish raising; and chicken raising techniques such as shelter, breed selection, feeds and feeding, care and sanitation.

### **Benefits of the CRDT program**

#### **(i) Fish raising**

Following the training and field visits, CRDT provided Mong with technical support as well as a \$120 grant contribution to assist him in establishing a family fish pond. First Mong dug a 13 x 10 x 3 meter hole on his land to start up a family fish pond. He then prepared the pond by leaving it to dry for one week, disinfected it with limestone, pumped in the water and added some natural fertilizer (cow dung and other green manure) to create phytoplankton for the fingerlings. By August 2006, the pond was ready for Mong to add 380 fingerlings (technically 3 fingerlings per square meter) of three different breeds, namely Chpin (silver barb), Trosork ( and Pra (*Pangatus*), provided by CRDT.

With regular support from CRDT, Mong can now produce his own feeds for fish using locally available resources (termites, cassava leaves, kangkong, and earthworms). For example, after observing that there was a lack of oxygen for fish in the mornings, CRDT advised Mong that this problem could be fixed if he added and then stirred water into the pond each morning. He has not yet harvested the fish, but claims that each fish now weighs around 0.6 kg. He estimates that in total around 50kg of fish is harvestable with a value of around 300 000 riel (around \$75). The family now spends less money purchasing fish from the markets, instead being able to regularly consume fish from the pond. Mong claims he spends around one hour per day taking care of the fish. He also gives advice on fish raising techniques to 4-5 other fish raisers in the village.

## **(ii) Chicken raising**

CRDT also provided Mong with training in chicken techniques. Before his training with CRDT, Mong raised some chickens, however his techniques were traditional. Chickens had no shelter other than below the house or in the shade of the trees. They were very susceptible to disease and has little access to food and water. Many chickens died every year and the family benefited little from raising the chickens.

As part of a technical training and input support program run by CRDT in April 2007, Mong was able to go on several trainings and field visits to see successful chicken raising in other village. Using ideas he had seen, Mong built a fence around his house using locally available bamboo, which acted as a biosecurity barrier for protecting the chickens. Then he and his wife started to construct a 3 x 4 meter chicken shelter. CRDT provided an initial support grant contribution of 7 chickens (6 pullets and one cock) that Mong, his family having been identified as the poor household, is not required to pay back.

Applying new techniques in chicken raising, Mong now has a total of 30 chickens. He produced his own feed for chicken using locally available resources such as cassava leaves, **Kangkong**, earthworms and rice bran. Mong has set aside around 6 m<sup>2</sup> of land for his earthworms which he uses as feed for the fish and chickens, as well as for frogs.

In this last six month Mong has earned 150 000 riel (around \$37) from selling chickens and additional 200 000 riel (around \$50) from selling earthworm to other villagers, which represent a substantial amount of income to him and his family. He has sold chickens in the local market (Sambo market) and to middleman who come to his house.

***“I spent less time and less input on chicken but get more income and easily to sell chickens with good price”.** Ms. Pich Kim Srey, Mong’s wife.*

Mong also shared his experience to other villagers in the village to learn on this chicken raising. These include how to cope with chicken diseases, how to take care chickens and feeding practice. Mong is very happy with the impact that chicken raising has had on him and his family. Not only have sales and provided them with some additional income from selling chickens, but Mong and his family are now able to consume more chickens and eggs.

In 2008, Mong plans to increase the number of chickens, expand the size of chicken shelter and increase earthworm production. He has learnt that the following simple measures lead to successful chicken raising:

- Providing proper shelter,
- fencing the house, thereby not allowing chickens to wander onto neighbors’ land,
- providing enough feed for chicken, especially earthworms, cassava leaves and kangkong, provide clean water for chickens and
- ensuring good and sanitation for chickens.

## **(iii) Other household land use**

Ms. Pich Kim Srey, Mong’s wife, has developed a small garden (around 100 m<sup>2</sup>) around the perimeter of the house which grows different varieties of vegetables, such as Kangkong, yard long bean, cassava, eggplant and snap beans. The garden is small and does not produce enough vegetables for the family to sell. However, they now have year round, daily access to

fresh vegetables and have saved money that otherwise would have been spent on purchasing vegetables from the market.

Also on the family's land, Mong has allocated 15 m<sup>2</sup> to raise local frogs. He collected small frogs from the rice fields and from the wild, feeds them earthworms as well as waste from the kitchen and garden. The family earns around 50 000 riel (\$12) from selling frogs some months.



*Mrs Kim Srey is showing her improved chicken pen*



*Mr Mong is showing his earth worm culture to be used to feed the fish and chickens*



*CRDT field staff providing technical advice about fish culture on the site.*



### **The Current Situation of Mong's family**

In the two years of practicing integrated household food production techniques Mong believes that his family's situation has improved. The family now has sufficient rice for household consumption through out the year, when previously they would face shortages for at least 3-5 months of the year. With the amount of money they have earned from household food production, Mong has completely repaid his debts to the village money lender. With the extra income, Mong has purchased one cow for \$90, bought \$45 worth of jewelry and put another \$10 into the village group savings account. Mong and his wife plan to save enough money to start renovating their house by increasing household food production activities in 2008.

***“Now my family situation is better than before because we earned enough money to support materials for children to study and for other social ceremonies. Most money comes from***

*chicken raising, rice production, frog production and earthworm production.” Ms. Pich  
Kim Srey*