

CASE STUDY 4

FARMERS BENEFIT FROM MODERN FARMING

Author: AFP team in Cambodia (Mr. Sun Heng, Mr. Ly Sereyrith and Mr. Nico Janssen)

Country: Cambodia

Sector: Agricultural and Forest Product (AFP)

CHALLENGE

More than 76% of the population in Svay Rieng province (South-East Cambodia) are smallholder farmers. They have limited modern cultivation knowledge and are generally hesitant to adopt new technologies unless they see clear evidence that it works and improves yields. Most farmers do not want to invest their money in improved agricultural inputs and their time in improved technical skills/practices as they are not confident in their ability to sell surplus production. In their daily farming activities, they practise traditional methods with low productivity compared to their time, labour and money spent. As a result vegetable production has seen little growth in terms of productivity improvement over the past decade.

Typically farmers in Svay Rieng Province only grow some traditional vegetables in the dry season and face difficulties in the rainy season due to water control along with limited technical know-how. The volume of local vegetables supply fluctuates with the season and falls far short of meeting local or national market demand. Regular and sufficient supply cannot be guaranteed, which in turn leads to a low interest from traders to source from the area. Even for the local and provincial markets the majority of vegetables are being imported from Vietnam. Also, the product type and quality does not meet the required standard, although many buyers prefer the local vegetables as they have a better reputation due to low use of external inputs and are claimed to have a better taste. Farmers are not well linked with the market in terms of market information exchange and agricultural inputs. Actors along the value chain perform several overlapping functions, causing ineffective chain functioning.

With these problems in mind, CFAP (Cambodian Farmers Association Federation of Agricultural Producers) approached SNV for assistance. CFAP has a strong relationship with farmers but lacks the capacity to provide value added services to its member groups.

CLIENTS

CFAP is an umbrella type organisation of small rural farmer associations providing services to small rural farmers/ producers groups to contribute to poverty reduction and food security through improvement of agricultural productivity.

CFAP operates at three levels: national, provincial and commune. Currently 16 Commune Farmers Associations (CFAs) and Community Based Organisations (CBOs) are member organisations with a total of nearly 8,000 individual member households, of which over 4,500 are female headed households) in central and south-east Cambodia (Svay Rieng, Prey Veng, Kampong Speu and Kandal Provinces). In total, around 40,000 people are targeted through the member associations.

CFAP's mission is to assist people in rural areas, particularly the poorest and most vulnerable, to encourage them to improve food security and sustainable land use through the income generation programme, agricultural production programme, education and training, gender, advocacy and creating small scale business and small agro-enterprises, savings groups and creation of rural co-operative market for rural farmers at a provincial level.

METHOD / SNV INTERVENTION

SNV builds the capacity of CFAP staff on improved vegetable production techniques, entrepreneurial and marketing skills and leadership so they can deliver the knowledge and skills acquired to their CFAs/CBOs and village vegetable producer groups (PGs).

SNV does this through joining forces with Agriterra (CFAP donor) and other partners, such as IVY (Japanese International Volunteer of Yamagata), IDE (International Development Enterprise) and PDA (Provincial Department of Agriculture), together with various local capacity builders (LCBs) who have the

OUTCOME

expertise and experience in providing capacity development services in particular capacity areas. LCBs are keys for SNV to deliver capacity development services to CFAPs. SNV works with three LCBs, which include the Cambodia-India Entrepreneurship Development Centre (CIEDC) for capacity building on entrepreneurial and marketing skills, VBANK leadership strengthening and International Development Enterprise (IDE) for improved vegetable production techniques.

Along with CFAP staff, 31 model farmers from PGs in 8 CFAs have been selected to participate in the capacity building through IDE in the form of establishing demonstration and trial plots. Model farmers are key persons to transfer and disseminate improved vegetable production knowledge to group members and other villagers.

Farmer field schools (FFSs) have been organised where CFAP staff and model farmers learned practical skills and techniques for better vegetable production, making use of improved inputs such as seeds, soil preparation, fertilisers, mulching film, trellising and so on. After each weekly FFS session, participating model farmers are stimulated to apply what they have learned on their demonstration and trial plots under the monitoring of CFAP staff along with weekly technical support/advice from IDE staff. At the end of each new vegetable demonstration a farmer field day was organised to introduce the new techniques to other farmers in the producer groups.

There are several outcomes resulting from the FFS, entrepreneur skill development and leadership programme. CFAP staff gained considerable experience in facilitating technical training in both theory and practice. Through working together with the expert trainers to follow up and give advice to model farmers to solve the problem faced during the experiment, CFAP staff got more and more experience and confidence.

In the first vegetable growing season 31 model farmers in eight communes of Svay Rieng province and five CFAP staff have been trained. The 31 trial plots had been implemented at the model farmers' homes growing 11 varieties of vegetable. The large majority of them are very interested in and have increased their skills in growing vegetables. They applied new growing techniques such as mulching film, trellising, soil preparation for sowing seed and planting, sowing seed, fertiliser usage and post-harvest sorting. The programme will continue to train more model farmers in 2011 as well as coach CFAP staff and CFA/CBO leaderships to wider disseminate the new acquired knowledge among other members in the producer groups and commune farmer associations.

From traditional to new technical practice

Ms. Reach Chakriya

Ms. Chakriya, who lives in Svay Village, Sankat Chek, Svay Rieng province, has four children, three sons and one daughter, two of whom are studying in grade 7 and 11 in Svay Rieng province and two sons working in Phnom Penh and Kratie province. Her husband, a three-wheeled vehicle driver (cyclo driver), is working in Phnom Penh. She has limited labour. Only her two children who live with her can help her. Sometimes her husband also helps her when he visits her.



Ms. Chakriya is a model farmer and became a member of CFAP in July 2010. Prior to this she grew Sambar cucumber (Trasak Srov) and produced rice using traditional techniques resulting in very low yields.

During her three months training in FFS, she learnt about the technical steps needed for cucumber production as well as how to calculate her cost benefit from this through record keeping.

During the training, she did a cucumber experiment at her farm using plastic mulch techniques on a 150 square metre trial plot, compared against a 150 square metre normal plot. The input cost of the trial plot was 104,900 riel (US\$26) and normal plot was 70,000 riel (US\$17). After the experiment the net profit on the trial plot was 19,5000 riel (US\$47) while the normal plot was - 50,500 riel (US\$-12).

After the experiment she decided to expand her vegetable growing area to 1,400 square metres. She invested her own money - around 326,800 riel (US\$80) - in improved seeds and mulching film. Now she grows different types of vegetables such as bitter gourd, cucumber, ridge gourd, eggplant and tomatoes by using mulching film and techniques that she learnt from FFS and her experience from the aforementioned experiment. During the period of harvesting cucumber and bitter gourd she earns 41,000 riel (US\$10) per day.

Her husband in Phnom Penh has now decided to return from Phnom Penh to help her expand this vegetable business as they learned they can make more income from this than him working as a cyclo-taxi driver.

Now, at least 30 villagers who have learned about and seen the results approached her with questions such as why she decided to expand, what she has learned, and is she afraid of losing her money.

Ms. Sao Savoeun



Ms. Sao Savoeun, who lives in Tachey Village, Kampong Chamlang Commune, Svay Chrum District, Svay Rieng Province, has two children. Both are studying in grade 5 in the commune. She has five members in the family including her mother. Her family has 20,000 square metres of land for vegetables, rice and fruit crops.

Her mother is a broom maker and her husband is a former construction worker in Svay Rieng Province. He is now the primary worker in the family for vegetable growing.

Before joining CFAP, her family income depended on her husband and her mother. Her husband worked in Svay Rieng and earned 10,000 riel per day from his construction work to support the family. "My family often had to spend their own income on food, medicines and other things which the family income did not cover. At home, we grew only a few traditional types of vegetables such as *kang kong* and bottled gourds because we did not have the experience, knowledge and did not expect to get more income from vegetables" she said.

Ms. Savoeun is now a model farmer. She joined CFAP in March 2010. After becoming a member was invited to participate in a FFS, entrepreneurship, marketing and business plan training. In the FFS she studied on Chinese kale growing techniques and at her home she conducted a long bean trial by applying new growing techniques on 200 square metres.

From the trial results and FFS training, she gained numerous skills in both theory and practice. Not only her, but her mother and especially her husband have also gained many skills and knowledge. She has also taught her husband how to grow vegetables based on what she learnt from her training and practice. "Previously my husband didn't know how to grow vegetables using new techniques. He always applied only traditional knowledge, but now he can grow them very well" she said.

Now her family is confident that they can earn more income from vegetable growing and have decided to expand their vegetable growing area to 7,000 square metres. They grow many types of vegetables, such as cucumber, spinach, wax gourd, long beans, tomatoes and bitter gourd. During the period of harvesting bitter gourd and spinach she earns at least 20,000 riel (US\$5) per day and hopes this will continue to increase once she begins to harvest other vegetables.

Her mother, who often goes away from home for a few weeks per month to buy broom materials in other provinces, now stays at home to help grow vegetables. She learnt that through vegetable growing she can make more income than working as broom maker.

Mr. Tes Sarorn

Mr. Tes Sarorn lives in Knol Kangthbong Village, Svay Ang Commune, Svay Chrum District, Svay Rieng Province. He has seven sons and daughters including his son in law. Five of them are garment workers in Phnom Penh and the other two stay at home to help with the family business. Mr. Sarorn is a farmer and also a business man in the village. Besides farming, he is a mechanic and has a paddy thresh rental business. He has a 40,000 square metre piece of land for growing rice as well as 1,600 square metres in the rainy season and 2,600 square metres in the dry season for growing vegetables.



Before he became a model farmer, he used to grow rice only in the rainy season and did not grow vegetables or other crops during the dry season. Previously, he grew only a few types of vegetables such as *kang kongs*, and ridge gourds by using traditional techniques because he did not have the knowledge and skills. The vegetables were often destroyed by insects. He spent a lot of money buying other vegetables for family consumption.

As there is now an increasing number of mechanics and paddy thresher rental businesses in the village, his income decreases has been falling. In order to make up the difference he began considering vegetable farming. When CFAP staff invited him to join the training he was excited and hoped to get more knowledge and skills to grow vegetables.

In the FFS training he studied bitter gourd growing techniques and at his house did eggplant trials by using mulching film techniques on a 150 square metre trial plot compared with a 50 square metre normal plot. From the trial results he learnt that the eggplant with the mulching film produced a much higher yield than the normal plot. The normal plot did not grow very well and also had problems with insects.

Based on the trial results, he decided to expand his vegetable growing area in the dry season by changing his rice field to a vegetable field. He plans to grow a diversity of vegetables such as tomatoes, cucumbers, wax gourds, bitter gourds, pumpkins and long beans on a 2,600 square metres plot.

Until now, at least eight villagers around his house are trying to replicate his techniques. They have also asked him to share his knowledge with them.

It is too early to estimate the true impact of the programme. The SNV intervention so far has shown that it is possible for smallholder households to increase their incomes substantially by improving vegetable production and marketing. However, the true success lies not in the model farmers but in other villagers seeing this and seeking to learn and apply these new techniques. Early signs are that this is starting to happen and the coming growing seasons will tell.

The first farmer field school has trained 31 model farmers in eight communes. As a result, the large majority was very interested and have expanded their growing area. Many people in the village approached and visited the trial plots of model farmers to see the results for themselves and to learn from them.

During the farmer field day in the village, which had around 50 participants, all were very interested in the new techniques and had numerous inquiries regarding growing techniques and marketing. Most were willing to follow and join the training.

IMPACT

LESSONS LEARNED

Moreover, regarding the entire value chain system, we expect that there will be an increase in the number of vegetable producers and a gradual build-up of contacts with middlemen and traders to meet demand in the market.

The model farmers are the key people to disseminate new knowledge and experiences to other farmers for the group members and non-group members in the village. As such, it is very important to select the right farmers for experiments. It is easy to convince other farmers to follow if they see the results as most of them are adverse to what they see as risk and very often want to see results before joining.

Hard skills are more popular than soft skills. Farmers want to see quick results. Long-term investment is a difficult concept to convince farmers of when they are thinking of quick income for urgent household needs.

TESTIMONIALS

"After the experiment I saw that there were different yields between trial and normal plots. The trial plot produced a much greater yield. Through this experiment I decided to expand my vegetable growing area. I hope I will get more income. If so, my husband, who is a cyclo taxi driver in Phnom Penh, will come back home to live with us and help me growing vegetables", Ms. Reach Chakriya said.

