Improving Natural Resource Management in Viet Nam's Hong Ha Commune

Local farmers no longer let their pigs roam in the forest. (Photo: N. Wilson)

2001-02-23

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An interdisciplinary research team of scientists and farmers is helping to defeat hunger and poverty in a poor mountain region of Viet Nam, which still displays scars from the Viet Nam War.

Located on a branch of the former ‘Ho Chi Minh Trail’, a military supply route used in the 1960s and '70s by the North Vietnamese Army, the Hong Ha Commune — encompassing five villages — is the poorest of 21 communes in the Aluoi District of central Viet Nam. More than 45% of local households lack enough income to stave off hunger all year round.

Environmental destruction

The Hong Ha Commune is the source of the Bo River, which supplies the agricultural plain of Thua Thien Province. During the war, however, the region was a frequent target of chemical defoliants and bombs, which destroyed much of its natural forest cover. Today, the once native vegetation has been replaced by invasive imperata grasses, which are difficult to remove when residents attempt agriculture or agroforestry. Moreover, the deforestation has led to devastating floods, both in the Aluoi District and in downstream areas.

To address these problems, researchers at the Hue University of Agriculture and Forestry are using participatory research methods to help local residents identify priorities and develop innovative responses to their needs. Launched in 1998 with financial support from the International Development Research Centre (IDRC), the project team has also received technical support from the International Center for Tropical Agriculture (CIAT) and the University of British Columbia.

Project roots

The project evolved out of an earlier initiative conducted from 1994 to 1997 in the Xuan Loc Commune of Viet Nam's Hue Province. In this work, the research team helped local farmers
improve their land management practices. The project introduced ecologically sustainable agricultural techniques and higher-yielding crops including new varieties of rice, cassava, mung bean, black bean, and groundnuts. Some of the most useful techniques from this initiative have since been applied to the Hong Ha Commune project.

Traditionally, Hong Ha residents have depended primarily on 'slash-and-burn' or swidden agriculture for their livelihood. Other food sources include hunting, animal husbandry, and the gathering of forest products. According to Le Van An, the project leader and Deputy Head of the Department of Science and International Relations at Hue University, the main goals are to gradually replace swidden agriculture with a home garden economy, limit forest destruction, diversify crop production, and increase household income.

Surveys

As a first step, the research team conducted surveys to assess the state of water, soil, agriculture, forestry, livestock, and human resources in the region. The results showed that local residents face numerous obstacles ranging from a lack of capital for investing in agricultural production to inaccessible markets, which make it hard for farmers to sell their produce at decent prices. They are also hampered by a limited number of crop growing options; low-yielding rice strains; inefficient pig-rearing; low female participation rates in decision making; limited education; rapid population growth (six people per household, on average); decreasing natural resources; severe flooding and unstable water resources.

Based on this survey, 17 households were initially selected for participation in the project. They included families from both the commune's five villages and its five ethnic groups. During planning meetings involving the research team and participating farmers, the partners agreed to conduct joint farmer-scientist trials to develop higher yielding crops and a strain of crossbred pigs that are better suited to the local environment. They also decided to introduce a greater variety of high quality agricultural products for both field agriculture and home-gardens.

Flooding

While generally successful, the trials have not been problem-free. "A flood damaged our trial crops and fish ponds. Now the crops are harvested earlier before the rainy season, and are grown higher up in the mountain," says Le Van Hua, the commune's chairman.

As part of its efforts, the university has held training courses to help participants improve their pig raising, rice management, and cassava growing skills. These lessons have been disseminated further through farmer-to-farmer visits, which are considered very useful by local villagers. Meanwhile, some residents have shared their experiences in gardening, livestock raising, and fish ponds, and have started to experiment with new crops such as pineapples, black pepper, and bamboo. As a result, the number of participating households is now more than 200. Community members are increasing their food self-sufficiency and making better use of their land.

Impacts

"Before there was always a lack of food, now there's enough," notes Quynh Dien, a male farmer who participated in the trials.
"We now have high yield rice, cassava, fish, pigs, and a better standard of living," adds Mrs. Quynh Vuong. "I received a loan from the project. I bought fertilizer, pesticides, and fingerlings. I’ve repaid the loan and used the profit to buy food and send my children to school."

**Training sessions**

"Every household wants to take part. When there is a training session with one family, many more come to learn," says Nguyen Hoai Nam, the commune’s Communist Party leader. "Now we know how and when to use fertilizer. We know how to use pig sties instead of letting pigs roam in the forest."

Among its goals, the project has strived to involve local women in agricultural production. For example, the local women's union has hosted workshops on farming methods. "Before, women were shy and didn’t speak in meetings. We didn't know much about livestock and rice production. Now we speak what we think and share our experiences," says Quynh Vuong.

**Full partners**

According to Le Van An, the farmers have played a key and enthusiastic role in the project’s successes, by sharing their agricultural knowledge with the scientific team and by participating in project planning, implementation, and management — a major departure from previous government programs. For example, local villagers participated in planning sessions concerning the construction of an irrigation system and a kindergarten. In the process, their own confidence and belief in their abilities has increased. "Farmers feel those activities belong to them, not just the researchers [and government officials], and are very excited," he says. Meanwhile, "the project has strengthened the research capacity of university staff. We have much to learn from the participatory approach."

Before the project ends in 2001, one problem that still needs to be addressed concerns property rights — local residents lack full authority to manage the commune’s natural resources. "We have organized meetings and invited people from provincial and district offices to discuss this. The way ahead is to develop a bottom up approach," argues Van An.

"We would like to spread our success story to other villages in the mountains," he concludes.

*Miriam Martinez and Nick Wilson are freelance writers who visited Viet Nam in the fall of 2000.*

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