

TRADE NOT AID

A food safety crisis in Vietnam has opened the door to smallholder vegetable producers in the north-western highlands to pioneer an agribusiness model that is now supplying Hanoi with certified safe produce

BY GIO BRAIDOTTI

New vegetable supply chains developed in an ACIAR agribusiness project have linked Vietnamese smallholder farmers in poor highland villages in the Moc Chau district with the modern retailers that are changing the way people shop in Hanoi.

Even midway through the proof-of-concept stage, 43 participating farmers in three villages more than doubled their household income to 26 million VND (A\$1,500) in 2013. This was achieved by retailing vegetables produced in an innovative, value-adding system. It was custom built for the farmers by an ACIAR team of public and private research, development and extension providers in Australia and Vietnam.

The key to the project's marketing success hinged on three innovations.

First, the ACIAR team exploited the villages' good soil and elevation to produce temperate vegetables—such as tomatoes, lettuce and cabbage—when demand is high but supplies are low. This occurs during Hanoi's hot summer months.

Second, growers were encouraged to adopt accredited 'safe vegetable' agronomic practices. These practices aim to eliminate health risks from pesticide and nitrogen fertiliser residues, which are so prevalent in Vietnam's existing supply chains that they are considered to be a major concern by both consumers and government.

Third, the ACIAR team engaged with the market and created direct links between Moc Chau farmers and retailers supplying Hanoi to exploit the district's climatic advantages.

In the process, the project established that, by working together in a coordinated fashion, remote smallholder farmers can reliably meet the supply needs of modern chain stores, supermarkets and hypermarkets. This can be achieved, despite farms being less than one hectare in size.

Furthermore, they can work together in ways that measurably profit the growers, retailers, consumers and the environment. The only 'pre-given' was the existence of good roads over the 200 kilometres that separate the villages from consumers in Hanoi.

The project is now nearing completion and its leader, Dr Gordon Rogers, director of the agribusiness company Applied Horticultural Research, says that neighbouring villages to the project sites are clamouring to adopt the new production, accreditation and marketing system.

"The project has enormous potential to expand," he says. "The dream is for the highland district of Moc Chau, Son La province, to imitate in the north (and in Hanoi) what vegetable producers in Da Lat have accomplished supplying the south of the country and Ho Chi Minh City."

Production—even before the project's final harvest—has already reached 400 tonnes over an 18-month period. The retail value of those

vegetables was estimated at about A\$2 million in Australian terms, given their 'safe vegetable' certification.

"The key to a broader rollout of project outcomes to more villages is an effective and sustainable link between the growers and modern retailers," Dr Rogers says. "That drives everything."

Currently participating are: Hanoi Metro Cash & Carry, a self-service wholesaler catering to professional customers, such as hotels and restaurants, rather than end consumers; the supermarket chain FiviMart; the hypermarket Big C; the Son Ha Company; and a chain of safe vegetable stores called Big Green—with more retailers showing interest in participating.



Reaching out to those retailers, however, required a lot of technical innovation to not only improve the quantity, quality and consistency of vegetables, but also to provide assistance with safe vegetable quality-assurance systems and certification.

Training was also needed in postharvest techniques, in coordination with the retailers, and in record-keeping both to ensure the produce's traceability and to capture changes in socioeconomic activity in the three participating villages—Tu Nhien, Ta Niet and An Thai.

Surveys in Hanoi also established consumer associations with produce from the Moc Chau District and these associations were used to inform marketing strategies.

"It has worked really well," Dr Rogers says. "The farmers are keen, they are making more money and there is a lot of retail and consumer interest in the vegetables they are producing."

Delivery involved a partnership between the Northern Mountainous Agriculture and Forestry Science Institute, the Research Institute of Fruits and Vegetables, Hanoi University of Agriculture, the French Agricultural Research Centre for International Development (CIRAD), and the vegetable marketing firm Fresh Studio.



Dr Gordon Rogers (left) heads an ACIAR project that linked smallholder vegetable producers in the northern Moc Chau highlands with markets in Hanoi. The highly successful project introduced a 'safe vegetable' production system that also exploits climatic advantages to deliver temperate vegetables when supplies in Hanoi are at their lowest during the hot summer months.

Together they provide services related to sustainable agriculture, particularly agronomy, quality assurance, and coordinating supply and demand. Testing for pesticide residues is done by the Department of Agriculture and Rural Development, which also oversees 'safe vegetable' accreditation.

"Innovative public-private partnerships or PPPs are a key instrument to improve food security and agricultural sustainability in Vietnam," says Fresh Studio, the company that has provided platforms for national and international businesses to meet key stakeholders from the public sector.

"The successful results of agricultural projects implemented as PPPs show great opportunities for the participation of more foreign and domestic companies to realise the sustainable development of five industries in Vietnam, including vegetables."

Having laid the foundations for a new agribusiness model at the three participating villages, ACIAR team members have high expectations for Moc Chau's vegetables, especially given the growth in demand for vegetables in Vietnam of 6% per year.

Rollout of the model to more farmers and villages will occur in the next phase of the project, due to commence in the second half of 2015, at which time Dr Rogers will also undertake activities to ensure the model is self-sustaining and ultimately self-funding.

In the meantime, the established farmer groups have bought two trucks to take their produce to markets, set up new packing facilities, built protected cropping structures, and are now coordinating supply directly with the retailers.

They have even developed and registered a trademark, owned at the district level, to capitalise on their success with leveraging safe vegetable production techniques.

"If the sector can be successfully developed, forecasts show that regions in Son La could supply 50% of total consumption of temperate vegetables during the six-month supply window," Dr Rogers says. "There are gains not only for consumer welfare, but also in poverty alleviation and income generation for smallholder farmers throughout the province." ■

ACIAR project: AGB/2009/053: Improved market engagement for counter-seasonal vegetable producers in north-western Vietnam

More information: Dr Gordon Rogers, project leader, Applied Horticultural Research, Australia, +61 2 9527 0826, gordon@ahr.com.au; Dr Rodd Dyer, research program manager (agribusiness), rodd.dyer@aciar.gov.au



Fast facts

- Vegetable production in Vietnam is focused in the specialised production region of Da Lat and the urban-rural interfaces around Hanoi and Ho Chi Minh City that are under pressure from urban development. Neither area has the capacity to meet growing market demand for vegetables in the north of the country.
- The transportation of vegetables from Da Lat in unrefrigerated trucks means that poor-quality produce is offered to customers in the north, including Hanoi. Excess demand has been met by Chinese imports but has raised safety concerns over pesticide residues.
- There were nearly 23,000 reported cases of food poisoning in Vietnam between 2001 and 2005, including from vegetables, according to the Ministry of Health, as well as severe soil contamination.
- Regulatory guidelines for safe vegetable production were first enacted in the late 1990s. By 2009, there were 40 provinces and cities nationwide involved with a total area of 60,000 hectares, which accounts for about 8.5% of the total vegetable cultivating area (705,300 ha).
- The rapid development of safe vegetable production areas introduced marketing opportunities and, with them, challenges relating to accreditation, monitoring and certification to build consumer trust.
- The price of 'safe vegetables' are usually 20–30% higher than that of regular vegetables.