

— Eco-Innovation success story from Vietnam —

An Ecological Catalyst for Vietnam's Guava Farms

On the banks of the Red River in northern Vietnam, the region's guava fruit farmers face all manner of challenge to their businesses. Like elsewhere, the use of pesticides to protect trees from disease and chemical fertilizers to boost production is very common. But businesses have noticed increasingly poor conditions because of excessive chemical use. One small enterprise, Viet Lien, has turned to ecological, sustainable solutions to improve its own situation and that of its neighbours... with some surprising results.



Viet Lien Ltd. is something of an oddity in the local community. This small company operates in the middle of a guava fruit growing area by the Red River bank, where it produces tea from guava leaves for the treatment of diabetes. But it is surrounded by guava farms which have been polluted by excessive, or inappropriate use of chemical fertilizers and pesticides.

Chemical conditions

Viet Lien's own farm, a 5,000m² holding, has been affected, it says. The company maintains that the use of toxins by farmers has had negative impacts on both soil and water quality – making those local farmers' lives even tougher.

This is reflective of a national trend. In recent years, Vietnam has imported and used between 70,000 – 100,000 tonnes of pesticides per year. According to the country's Ministry of Natural Resources and the Environment, up to 80% are being used incorrectly, unnecessarily, or are wasted. And the Ministry puts the number of pesticide poisoning cases at 5,000 a year – some with fatal consequences.

However, increasing contamination isn't the only thing affecting guava farmers. Guava tree diseases, when they do hit, lead to low fruit quality and very poor productivity. Many farmers, says Viet Lien, have had to quit their farms and head for factory jobs in industrial, urban areas, leaving the land for good.

Where Viet Lien was concerned, its own levels of guava production were routinely low, affecting the company's earning potential. Subsequent attempts to "import" guava from local farmers were also unsuccessful; the reduced quality of the product simply wasn't up to standard.



A multi-pronged business approach

For the sake of the community, the environment and the business, Viet Lien decided to stop the rot and take on a new, eco-innovative business model; one conceived with the whole community in mind.

Supported by CCS, an NGO from Hanoi which builds capacity in sustainable consumption and production, Viet Lien put together a sustainable and eco-friendly plan based on brainstorming seminars, evaluations and risk assessments. It was ready for the next step.

Again supported by CCS, Viet Lien presented its new business model to the 'People's Committee' of Hanoi's Long Bien district. The company proposed a long-term project to change its contaminated guava growing area into a much safer guava production area – fully compliant with the regulator-recognised VIETGAP (Good Agricultural Practices).

The strategy rested on four key objectives: turning competitors (guava farmers) into customers; switching farmers from chemical-based cultivation to a VIETGAP-compliant model; bringing new stakeholders into the business model, and; expanding the business through eco-tourism.

“The more the company’s business expands, the more guava farms are saved from the rampant use of chemicals,” says Viet Lien.

Now for the innovation

By the end of 2016, the Long Bien People's Committee had approved Viet Lien's proposal, offering its cooperation on the launch of the project at pilot scale. Five hectares of guava farms – including 89 households – would be brought into the fold.

The innovating began with a “technical hub”, located at the heart of the project area. Accessible to all stakeholders, the hub allows Viet Lien to offer consulting services to farmers; on VIETGAP agricultural practice, organic fertilizers and eco-friendly pesticides.

The company also offers guava biomass processing services, turning guava biomass into bio-char – which is then used as a natural fertilizer to improve soil quality.

So far, Viet Lien's service-oriented business model has worked, since the primary revenue of the company comes from local customers and service fees.

But a win-win dynamic has also emerged.

“The farmers also gain profits from using Viet Lien's services,” says the company. “So it's not too difficult for us to gain customer loyalty.”

The company adds that success has also been achieved in job creation; not only for local guava farmers, but new, young workers who have engaged with Viet Lien's new business model.

Moreover, a stable supply of safer, higher quality, organic guava in the local area means that Viet Lien can diversify its business offering and bring new products to market. Guava sweets, guava vinegar, guava soap and guava juice are all expected to boost income for the company in the future.

The environmental benefits are clear. Engaging local farmers in the business model has notably led to a sharp drop in chemical use by client farms. These farms are now VIETGAP-compliant and the health of farmers and consumers is no longer comprised.

Even the idea of using bio-char as fertilizer has also spread. By popularizing the use of biomass gasification cooking stoves (which the technical hub received courtesy of CCS), Viet Lien appears to have acted as a catalyst for farmers turning their waste (guava branches and damaged leaves) into eco-friendly fertilizer.

Viet Lien's director, Thi Phuong Lien Nguyen, says that eco-innovation has given the company a "profitable and sustainable business model", giving it the confidence to commit to sustainable development practices as it moves forward. Even the company's gender balance is good news, with nearly 90% of employees being women.

"During the two years of implementing the Eco-innovation Project, we were constantly inspired by new findings as a result of applying the eco-innovation tools. We had the support we needed to realize many plans and ideas in such a short time."

In the case of Viet Lien, however, the company's eco-innovations have invigorated the community as a whole. Guava farmers in this corner of Vietnam can now see for themselves why it makes sense to choose an ecological, sustainable future.

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