

# Women working wonders in Vietnam

Poor smallholder farmers in north-west Vietnam are proving they can produce and sell commercial quantities of safe, nutritionally rich vegetables given a little research and development support

Australia's Minister for Foreign Affairs, The Hon. Julie Bishop MP (right), visits a display of vegetables with Vietnam Women's Union President Hoa (to left of Minister Bishop) in Hanoi, at the launch of an ACIAR vegetable project.



BY DR GIO BRAIDOTTI

Since the 1980s, Vietnam has used a food-based strategy in their fight against undernutrition that encourages villagers to participate in all three components of food production—plants, ponds and livestock—and to improve the quality and not just the quantity of food.

This policy has led to annual growth in food production and to changes in the structure of the Vietnamese diet so that it now includes fewer starchy cereals and a higher proportion of meat and fish.

Some sectors of the population, however, receive less than the required intake of certain micronutrients. "Deficiencies in iron, minerals and vitamins caused by eating mostly cereals impacts the health of about half the country's population," Dr Le Danh Tuyen, deputy director at the National Institute of Nutrition, told *Viet Nam News*.

"Addressing micronutrient deficiency is still vital to solve health problems in Vietnam and it is an important component of the 2010–20 National Strategy for Malnutrition Prevention."

## A ROLE FOR SMALLHOLDERS

Vietnam's decision to co-opt agriculture in the fight against malnutrition—and to do so in ways that reduce poverty—offered opportunities for ACIAR to engage with Vietnam to better exploit the nutritional value of vegetables.

The work was undertaken with Vietnam's ethnic minorities in the mountainous north-west provinces of Lao Cai and Phu Tho. The overall goal was to raise the production, consumption and commercialisation of the region's nutritionally rich indigenous vegetables.



PHOTO: SUZIE NEWMAN

The project ran between 2008 and 2012 and was led by Dr Suzie Newman from the University of Adelaide (previously with the New South Wales Department of Primary Industries). Essential to the project's success was the strong partnership with the Vietnam Women's Union.

"The original project focused on indigenous vegetables but in Vietnam that covers a lot of different plants," Dr Newman says. "So initially we selected six 'model' vegetables that included plants harvested for their leafy material, roots and fruit as well as annual and perennial plants."

In Lao Cai province the vegetables selected were Cai meo (a bitter, leafy brassica), Bap cai xoe (an unfolded cabbage) and Khoi tu (a perennial with a high-value leafy crop).

In Phu Tho province the vegetables selected were Bo khai (a leafy vegetable that appeals to urban gourmets and is no longer readily available from forests), Khoai tang (an indigenous taro) and Muop dang (a small, bitter melon—featured on this issue's cover).

"Some of these indigenous vegetables can be nutritionally better for you than some of the more 'everyday' vegetables," Dr Newman says, referring to analyses undertaken in Vietnam by project partner, the National Institute of Medicinal Materials.

Included in the research are micronutrients especially targeted by Dr Tuyen and the 2010–20 National Strategy for Malnutrition Prevention. Khoi tu and Khoai tang, for example, were found to contain extremely high levels of iron (iron deficiency is one of the three most common micronutrient deficiencies in the world). Cai meo and Muop dang are especially rich in vitamin C.

"Different vegetables have different nutrient profiles and deliver different nutritional benefits," Dr Newman says. "Some profiles were more towards the standard range but there were definitely others that pack extra nutritional benefits."

In 2008, the communities that grew these indigenous vegetables possessed few market links. As a result, consumers were missing out on the vegetables' health benefits and smallholder farmers lost out on new income opportunities.

By building an interdisciplinary team that included seven Vietnamese institutions, a way was found to take these vegetables from small-scale production in the remote north to semi-commercial and commercial levels of production capable of supplying markets across Vietnam.

Along the way, smallholder farmers were helped to overcome production constraints,





Vietnamese smallholder farmer preparing to sell bitter melon at market.



Chefs in Sa Pa, north-western Vietnam, prepare dishes using indigenous vegetables for public taste testing as part of a marketing exercise undertaken within an ACIAR project. Recipes were subsequently made available on recipes cards provided with vegetables sold at markets across Vietnam.

address postharvest storage and transport challenges, and develop marketing strategies and supply chains to local, regional, urban and (now, with a new project) international markets.

Farming innovations were identified by working with groups of about 30 farmers in six communes, with the groups composed mainly of women. A broad range of production issues were addressed, including soil nutrient management, suitable trellis structures, harvesting, storage and intercropping with, for example, plum trees.

Research activities also addressed concerns raised during consultations with representatives from across the supply chain, including collectors, wholesalers and retailers.

The findings were then collated into training material and teaching resources that are being made available to smallholder communities more broadly, including through a popular farmer learning tool—the farmer business school.

“While some of this research was in response to issues the farmers themselves raised, we were also working to understand how to move crop production to a more commercial scale,” Dr Newman says. “So marketing was also a strong focus of the project.”

### CLEAN, GREEN AND SAFE

Experience across ACIAR programs has clearly established that with the provision of some R&D support, smallholders can develop their production systems into small, dynamic agribusinesses.

Running in favour of the north-western vegetable producers is the perception within Vietnam’s urban consumers that their produce is clean, green, safe and healthy. As a result, retailers in large cities, including Hanoi, are prepared to work with farmers to get the vegetables to market.



(Left) Indigenous taro is one of six vegetables targeted in an ACIAR project to help improve smallholder income and national health.

(Below) Training in bitter melon planting techniques in north-western Vietnam included trellis construction.

“We know that indigenous vegetables have a niche market opportunity in that they fetch a much higher price than your everyday ‘global’ vegetables,” Dr Newman says. “So there is a real opportunity for the smallholders to earn extra income.”

Concurrently, as word spreads to diversify diets with meat and vegetables, opportunities increase for farmers to incorporate nutritionally rich and high-valued vegetables into existing rice and horticultural systems.

“Many farming systems are in transition in Vietnam,” Dr Newman says. “With the fruit system, for instance, there are opportunities to grow vegetables as an intercrop but we want to ensure this does not detract from a well-established and lucrative production system, such as plums.”

Another issue the team wants to explore is whether increased production of vegetables is leading to increased consumption of vegetables and improved health benefits.

“There are still some malnutrition issues in these areas, particularly with children and stunting,” Dr Newman says. “So we want to look more broadly and try to understand whether there is a health benefit beside an economic one to commercialising vegetable production.

“To do that we are taking more of a systems



approach, including the whole farming system. That lets us better understand how these different production systems impact household income and health.” ■

**ACIAR projects: AGB/2006/112, AGB/2012/059**  
**More information: Dr Suzie Newman, Global Food Studies, Faculty of the Professions, University of Adelaide, [suzie.newman@adelaide.edu.au](mailto:suzie.newman@adelaide.edu.au), and the Vietnam Women's Union, 39 Hang Chuoi, Hanoi, Vietnam, +84 167 643 4799 (Vietnam)**