



ACIAR IN VIETNAM: 1993 - 2003

2003 marks 10 years since the Australian Centre for International Agricultural Research (ACIAR) began its Viet Nam program. Among donor organisations in Viet Nam, ACIAR is unique, bringing together Vietnamese and Australian scientists to solve agricultural problems which threaten both countries. ACIAR's Viet Nam program focuses on a broad range of agricultural research, both at the farm level and beyond.

ACIAR develops its research and development program through consultation with Viet Nam. ACIAR and the Vietnamese Government hold regular formal meetings to discuss Viet Nam's agricultural priorities. Such meetings ensure that the appropriate Australian research institutes are directed towards areas of greatest need. Viet Nam's representative on ACIAR's Policy Advisory Council guarantees ACIAR and its Minister (the Australian Foreign Minister) are well-informed about the agricultural problems which Vietnamese rural communities face.



Since the program began 10 years ago, more than 50 ACIAR-funded research projects have been implemented in Viet Nam. The breadth of the program reflects Australia's agricultural expertise. ACIAR's projects have covered scientific disciplines such as agricultural policy; animal production and health; crop production and protection; fisheries; forestry; post-harvest technology; soil sciences; and water resources management. It is due to the dedication of Vietnamese and Australian experts in these fields that the ACIAR program to date has been a success.

Viet Nam has also benefited from ACIAR's support towards training courses and two Fellowship programs for its young scientists. These programs have contributed to increasing the capacity of Viet Nam's scientific community.



Continued growth in the agricultural sector is vital to Viet Nam. Effective scientific research can help in achieving this, now and into the future. ACIAR is committed to fulfilling the agricultural research needs of Viet Nam, bringing together and supporting scientists for the benefit of the Vietnamese people.

Ten Years of ACIAR in Vietnam - Highlights

Breeding Better Pigs



Pig production is vitally important to Viet Nam, with pigs providing up to 70 per cent of protein for Vietnamese people. The growth of cities and changing diets are increasing demand for pork. Local pig breeds, however, are slow growing, producing meat with a high fat content.



The Institute of Agricultural Sciences of South Viet Nam worked with the Queensland Department of Primary Industries (QDPI) to introduce Australian breeds well suited to Vietnamese conditions. Crossing the Vietnamese and Australian breeds resulted in faster growing progeny with leaner meat. Through support from AusAID, five artificial insemination centres have been equipped and used to introduce and build up the newer, superior breeds. An independent assessment has estimated that by 2010, this project's value to Vietnamese pig farmers may total US\$325 million.

Vaccines for Poultry

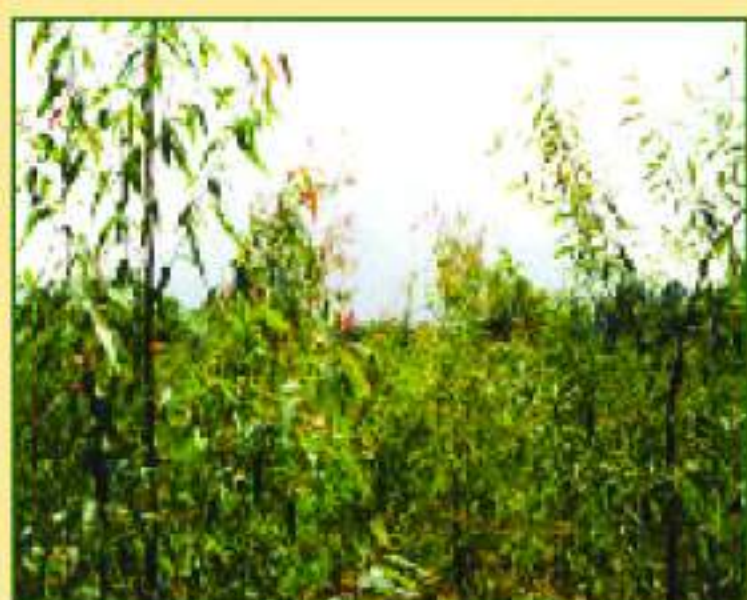
In Viet Nam, itinerant farming of ducks is a major income source for many smallholder farmers. The duck industry, however, faces a major disease threat from duck plague (duck viral enteritis). Duck plague can lead to up to 90% mortality in duck flocks. The University of Queensland, CSIRO, and Viet Nam's National Veterinary Company (NAVETCO) developed a vaccine and diagnostic tests against duck plague. NAVETCO recently commenced commercial production of this new vaccine, which is now recommended for controlling duck plague in Viet Nam.



ACIAR-funded research has also targeted the highly-infectious Newcastle disease, which can have a devastating impact on smallholder chicken flocks. The University of Queensland developed the easy-to-administer I2 vaccine to combat this disease. Field trials funded first by ACIAR, and then NAVETCO, confirmed the vaccine's effectiveness in Viet Nam. NAVETCO now distributes the vaccine throughout Viet Nam and Cambodia. Independent assessments project that by 2012, Viet Nam's poultry farmers will benefit by as much as US\$40 million as a result of this research.



New Trees for Viet Nam



Many central Vietnamese rural communities suffer a harsh climate, degraded soils and drifting sand dunes. CSIRO and the Forest Sciences Institute of Viet Nam have introduced varieties of Australian tree species suited to Vietnamese conditions. These species have been successfully planted in difficult environments, increasing land productivity and stopping soil degradation. This research work has brought benefit to Vietnam's wood growers and small rural companies who participate in the multi-million dollars wood production industry.

Improving Soybeans



Soybean is an excellent source of protein for rural communities. It can also be used to feed livestock. However, the productivity of soybeans in Viet Nam is low: averaging only 1 ton per hectare compared to 2 tons per hectare elsewhere. CSIRO, Viet Nam Agricultural Sciences Institute, the Institute of Agricultural Science of South Vietnam, Hanoi Agricultural University and Thai Nguyen Agricultural University have developed new, hardier varieties of soybean and new growing methods which have also contributed to increases in yield. These new varieties and growing methods should allow Viet Nam's soybean farmers to boost their profits.

Improving Shrimp Production and Saving Mangroves

Rapid expansion of shrimp farming in the Mekong Delta has had a serious impact on Viet Nam's mangrove forests. Attempts to integrate shrimp farming with the production of mangrove wood have been disappointing, mainly because of poor production techniques. To combat this problem, the Research Institute for Aquaculture No 2, the Australian Institute for Marine Science and the Network of Aquaculture Centre in Asia Pacific focused on how to make small mixed farming system profitable and sustainable. Scientists found



that changing pond designs and management increased shrimp production. They also found that changes to forest management could improve mangrove wood production by about 20%.

A separate project involving the Southern Cross University and the Vietnam National University on mangrove genetic diversity and propagation may see the development of high quality germplasm for new mangrove forests. ACIAR and its partner agencies also produced a manual in Vietnamese and English for farmers and extension workers providing advice on farming shrimp and planting and managing mangrove forests. The project's findings have been extended to other donors' research & development projects in the Mekong Delta.

Better Irrigation Management

Water management is vital in Viet Nam to ensure agricultural productivity. This is particularly true in the Red and Mekong River Deltas, where irrigation water is often distributed inefficiently. To address this problem, ACIAR has funded two projects which involved the University of Melbourne, the Viet Nam Institute for Water Resources, the Southern Institute for Water Resources Research and the Nong-Lam University (HCMC). Using computer modelling, scientists developed an irrigation system management model. They also developed a computer-based tool for asset management and an institutional model to improve system performance. These and other innovations can make a significant contribution to improved irrigation efficiency. As a result, Vietnamese companies now can manage water more efficiently, which should benefit rural and urban communities, as well as the environment.



LOOKING TO THE FUTURE

Fisheries



The Vietnam government's aquaculture strategy acknowledges that fisheries can increase employment, improve living standards, and provide a source of protein for rural communities. There are two examples of how ACIAR supports this strategy. One current project involves the development of a best practice model for culture-based fisheries and improvements to management practices in large reservoirs. A second future project involving the Mekong River Commission will assess stock relationship and better define suitable management of two important carp species in the Mekong. These fisheries provide food and income for more than 50 million people. Understanding the genetic relationships and extent of the fish stock is the first step towards developing management plans for these species, and others in the river.

Stopping Fruit Flies

Like so many around the world, Viet Nam's fruit farmers suffer from crop loss due to fruit flies. The problem is so severe in some parts of Viet Nam that farmers are losing their entire crop. With support from ACIAR, Foster's Viet Nam, Bayer and the Crawford Fund, the International Centre for the Management of Pest Fruit Flies (Griffith University), the Southern Fruit Research Institute and the National Institute of Plant Protection are developing a protein bait made from brewery waste which attracts fruit flies. With a pesticide added to it, the bait is applied as a small spot to each tree in an orchard. The result is a low-cost and environmentally friendly method of controlling fruit flies. An added advantage of the method is brewery waste will no longer be released into the environment. This research project is starting to benefit fruit farmers in the Northern Highlands and the Mekong Delta.



Beef Production in Central Viet Nam



In February 2008, the AusAID-funded Quang Ngai Rural Development Program (QNRDP) conducted a national workshop 'Livestock income generation for the rural poor'. ACIAR has developed a project, in part built on previous ACIAR-supported research on beef cattle production and also using inputs from the workshop. The Department of Primary Industries (Victoria) will collaborate with Hue University of Agriculture and Forestry, the Quang Ngai Department of Agriculture and Rural Development, the QNRDP, and the National Institute of Animal Husbandry. These institutes will develop cattle feeding systems based on locally available resources. The research will also allow a better understanding of the effects of different forages on cattle production. If successful, the project will have significant economic and social benefits for smallholders in Central Viet Nam.

EDUCATION AND TRAINING

ACIAR's program in Viet Nam includes general training designed to advance the skills of research scientists. Examples of training courses which ACIAR has funded in Viet Nam include:



- Master Classes on Research Management in Agriculture. Workshops exposed Vietnamese officials responsible for planning, implementing and evaluating research programs to effective management techniques for agricultural research; and
- Courses on evaluation training for agricultural research projects. These courses provided participants with an understanding of the frameworks and processes for developing and implementing evaluation plans.

ACIAR continues to plan training courses in Viet Nam and other partner countries on a wide range of subjects, such as priority-setting in biotechnology, intellectual

property management in agriculture, agricultural extension principles and research impact assessment.

ACIAR Fellowships

ACIAR has two fellowship programs: the John Allwright Fellowship and the John Dillon Fellowship.



The John Allwright Fellowship provides opportunities for Vietnamese scientists to obtain postgraduate qualifications from Australian institutions. In the 10 years of the ACIAR Viet Nam program, 14 Vietnamese scientists have been awarded Fellowships.

The John Dillon Fellowship commenced in 2002. It aims to develop leadership skills in agricultural research management, agricultural policy and extension technologies by funding Fellows to visit a range of Australian agricultural organisations to learn about best practice in these fields. The 2004 intake will include the first Vietnamese scientist to be awarded a Fellowship.

SPREADING THE WORD: ACIAR'S PUBLICATIONS



As part of its commitment to maximising benefit from its research, ACIAR distributes its publications to many institutions. These publications include conference/workshop proceedings, technical reports and field manuals providing advice on the application of new technologies. Over ten years, the ACIAR Viet Nam Country Office has provided hundreds of publications free of charge to Vietnamese Government Ministries, provincial-level departments, research institutes, universities and international and Vietnamese NGOs. With collaboration from Viet Nam's Ministry of Agriculture and Rural Development, ACIAR has embarked on translating some of its publications into Vietnamese to broaden their accessibility and utility in Viet Nam.

Any inquiries in relation to ACIAR, or its program in Vietnam, should be directed to the ACIAR Hanoi Office at the Australian Embassy, 8 Dao Tan, Ba Dinh District, Hanoi, Tel: 844 8517755, Fax: 844 8517707, or visit our website: www.aciar.gov.au or www.austnvn.com