



INDONESIA *Newsletter*

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*Ambassador Bill Farmer,
Ibu Nitis, Dr. Nitis & Ibu Yulianthi*

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The Distinguished Alumni Award for Dr I Made Nitis

The work of an Australian alumni, Dr I Made Nitis, was recognised at a reception hosted by the Australian Ambassador, Bill Farmer, and Consul General, Lex Bartlem, on Friday 20 March. Guests included the Governor of Bali, the Regent of Badung and other high ranking government officials.

Ambassador Farmer said it was the commitment by outstanding individuals such as Dr Nitis that made a real difference in our community. 'I am delighted to present this award to a remarkable person who has made significant contributions to

the development of Indonesia and to the strong people-to-people links between our two countries', he said. Dr Nitis' close links with Australia include his work with the Australian Centre for International Agricultural Research.

Dr Nitis has made an excellent contribution to land farming with his innovative research in Bali and eastern Indonesia. He was the first Indonesian to obtain his bachelor degree, his master degree and to complete his PhD in rural science in 1974, from the same university the University of New England, Armidale.

Harvesting lobster

Project: Improving lobster grow-out and nutrition in West and East Nusa Tenggara

Theme: Benefiting from high-value products

The issue

The production of spiny lobster in aquaculture systems has been expanding rapidly in eastern Indonesia, caused by strong demand in local and North Asian markets.

The emerging industry is reliant on wild-harvested juveniles and sea-based feed resources, both of which are under pressure as demand increases. There is not enough understanding of the sustainability of the long-term use of these resources to support the expanding industry.

The global supply of market-ready, wild-caught spiny lobster is estimated to be around 80,000 tonnes and major buyers are aware that the supply of these lobsters has reached its limit.

It seems a good move to start getting supplies through aquaculture, which currently produces less than 5000 tonnes of spiny lobster in any one year.

Collaborative response

Through previous research, primarily in Vietnam, ACIAR has developed more sustainable methods of spiny-lobster aquaculture that have made a significant contribution to smallholder livelihoods. The ACIARSADI research in Indonesia has linked experienced Vietnamese and Australian institutions to their Indonesian counterparts (at the Indonesian Marine Aquaculture Development Center and the Directorate General of Aquaculture) to develop a more sustainable and profitable way of supplying the market.

Emerging effects

The project has produced a number of important results in the short time it has been operating. Through collaborative partnerships in research, new and improved lobster diets have been introduced that increase growth rates. As well as shortening the time it takes to bring

lobster to market, these diets are available, affordable and ideal for smallholder use.

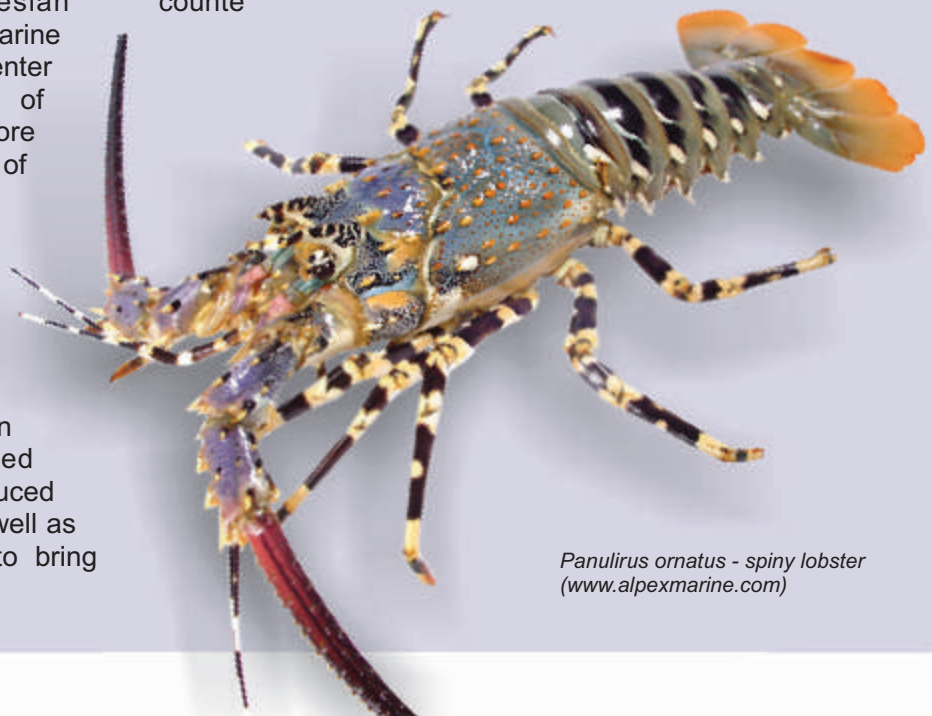
Regular data have also been gathered over a 12-month period to provide a snapshot of juvenile stock numbers and of suitable sites throughout West Nusa Tenggara (NTB). These data provide a picture of the availability of stock and will enable better methods to be developed for wild-harvesting lobster; the methods can be applied to lobster farming in NTT and beyond.

Future direction

Although a snapshot of juvenile wild stock has been taken, data must be gathered over a longer period to develop an accurate picture of stock numbers in the seas. It is from this understanding that better ways to harvest juveniles for use in aquaculture systems will be developed, enabling a more sustainable and, in the long term, profitable industry to develop.

Feed resources continue to be a major constraint in shifting lobster production from wild harvest to aquaculture; high demand and low supply make them expensive. This project to develop growth-promoting and affordable diets will make a major contribution to the viability of the spiny lobster industry in eastern Indonesia. More important, it will have a significant effect on the livelihoods of producers in this industry.

At present, the supply of lobster has reached its natural limit; the research will enable it to increase.



Panulirus ornatus - spiny lobster
(www.alpexmarine.com)

Cultivating marine products for market

Project: Assessing mariculture market constraints and potential in Southeast Sulawesi

Theme: Benefiting from high-value products

The issue

There is significant potential for developing the mariculture industry cultivating marine organisms for food in Southeast Sulawesi, with a focus on expanding high-value species to complement the established seaweed-farming sector. Cheaper seed availability is important, but there are other constraints to commercial growth. Seafood is a major Indonesian export and was 15 per cent (US\$1.6 billion) of agrifood exports in 2006. However, Southeast Sulawesi exports less than 0.1 per cent of that total and only uses 6.3 per cent of its available coastal area for development. More than 85 per cent of its mariculture industry is seaweed, with the rest made up of higher value products grouper, abalone, pearls, lobster, crab and sea cucumber. The ACIARSADI research is to support sustainable industry development in these new areas and with more profitable products.

Collaborative response

ACIARSADI is facilitating local leadership and support for the mariculture industry by developing a commercially oriented strategic plan. This industry plan will be supported by a new stakeholder network involving the public and the private sectors. This plan will look for opportunities to adopt a more market-driven approach to industry development of Southeast Sulawesi's smallholder mariculture sector, which will improve profitability and livelihoods.

Two studies have been made; a baseline survey of high-value products and a market case study. The



Seaweed is an important part of smallholder livelihoods.



A range of different mariculture options are possible.

case study focused on the different components from production through to postharvest handling and logistics, and included information on domestic and international pricing and demand. Southeast Sulawesi will be enabled to make better use of its coast and increase the output and diversity of its mariculture products.

Emerging effects

The studies conducted as part of this research have identified strong export opportunities for Indonesian mariculture products, which support the opportunity to expand Southeast Sulawesi's smallholder mariculture industry. The industry would also benefit from a marketing strategy that emphasises the quality and sustainability of production from an ecosystem-based management approach.

The mariculture industry at present is supplied by local producers who know little about their market. The price they get is dictated by the distribution sector, the next link in the chain of supply. There are no set quality standards or specifications, no marketing strategy, no market development and no feedback from consumers. This must change if the industry is to grow.

Future direction

ACIARSADI will complete the industry development strategy, which will take into account the above issues, as well as identify areas to improve research and development, training, production, post-harvest management, logistics and processing/value-adding. The plan will also take into account community development needs and the opportunity to improve engagement with the private sector. This may enable better integration of the other subprograms of SADI, which will be essential to the sustainability of the industry in Southeast Sulawesi.

NEW PROJECT

FIS/2005/137 Control of nodaviral disease in tropical marine finfish hatcheries: enhanced biosecurity through the application of contemporary biotechnology, epidemiology and pathobiology

Project duration : 01/03/2009 - 31/08/2010
Allocated budget : \$150,000.

A number of microbial and parasitic diseases affecting tropical aquaculture are common to Indonesia and Australia. Pre-eminent among these is the nodaviral disease, viral nervous necrosis (VNN), which affects diverse marine finfish species and is considered a major limiting factor to economically viable and sustainable mariculture. So far, little is known of how the virus spreads



VNN

from the environment to hatcheries and farms (epidemiology) and the mechanisms resulting in infection and disease (pathogenesis). The University of Sydney is currently developing and evaluating a polymerase chain reaction (PCR) assay of high sensitivity and specificity for the detection of VNN and this, together with other serological methods under development, will give researchers valuable tools to understand better the epidemiology and pathogenesis of VNN.

This project is helping to develop practical on-site strategies for the control of VNN in selected Indonesian marine finfish hatcheries. The scientists are evaluating current biosecurity measures in Indonesian hatcheries and also assessing current diagnostic competence in particular Indonesian laboratories. They are evaluating functional and operational improvements that are needed in hatchery management and the control of VNN. The project team will also improve the knowledge base of Indonesian laboratory staff in aquatic animal pathology, epidemiology and molecular diagnostics and establish contemporary PCR technology for the diagnosis of VNN in selected Indonesian laboratories. This short-term project on VNN has considerable potential as a model on which research may be done into the epidemiology and pathogenesis of other significant diseases. This will provide a basis on which disease control strategies can be integrated with

aquaculture management programs in Indonesia and Australia.

Collaborating institutions

University of Sydney, Faculty of Veterinary Science, Australia
Directorate General Aquaculture, Indonesia

HORT/2006/146 Management of fruit quality and pest infestation on mango and mangosteen to meet technical market access requirements

Project duration : 31/10/2008 - 30/10/2012
Allocated budget : AUD 1,507,218.

Mangosteen and mango are two economically important fruit crops for Indonesia for which there is strong domestic and export demand. But there has been little successful international market penetration for both fruits, which could be attributed to the small amount of export quality fruit produced. This project aims at improving the international competitiveness of Indonesia's mango and mangosteen industries. Major objectives are to:

- (1) identify technical and phytosanitary requirements for fresh mango and mangosteen in key markets and develop strategies to overcome current market constraints;
- (2) improve fruit quality from production to consumption by using good agricultural practices;
- (3) conduct the necessary phytosanitary treatment of fruit for selected export markets; and
- (4) build capacity in the mango and mangosteen industries to conduct integrated and specific research, development and extension programs.

Collaborating Institutions

- Department of Agriculture and Food, Western Australia, Australia
- Queensland Department of Primary Industries and Fisheries, Australia
- National Nuclear Energy Agency, Indonesia
- Directorate General of Horticulture, Indonesia
- Indonesian Agency for Agricultural Quarantine, Indonesia
- Bogor Agricultural University, Indonesia
- Indonesian Tropical Fruit Research Institute, Indonesia



Mangosteen

Indonesia and Papua New Guinea combat the coffee berry borer

(by Dr. Soetikno Sastroutomo, CABI)

The Indonesian government will collaborate with Papua New Guinea in its effort to combat the coffee berry borer (CBB), which causes severe damage to coffee crops in both countries.

A press release from the Directorate General of Estate Crop Protection of the Ministry of Agriculture stated that collaboration in combating the CBB will run from 2009 until 2012. This was discussed in the inception workshop of the project held at Goroka, PNG, in early December 2008. The workshop was attended by delegates from Indonesia, PNG and CABI (an international non-government organisation dealing with agricultural matters).

The collaborative work will begin in March or April 2009. There will be a survey to assess the extent of CBB infestation along the Indonesia-PNG border. This will be followed by improving the information centre for CBB and training taxonomists in Indonesia and PNG in how to identify the borer.

It is intended to have an integrated pest management program in June 2009. The program will improve the knowledge of those in the industry and include IPT training and field schools for farmers; one in PNG

(October 2011) and another in Indonesia (November 2011). As well, in November 2012, there will be demonstration plots set up in PNG and Indonesia in the Tanah Toraja Districts and Enrekang in South Sulawesi and in Wamena, Papua.



Other activities, such as Training of Trainers, will be organised at the Indonesian Center for Coffee and Cocoa, Jember (June 2009). Meanwhile, CABI will coordinate designing the curriculum and evaluation for the farmers' field school.

During the period 2009 to 2012 there will also be pest biosecurity awareness programs on the CBB that will include a field school, in Wamena District, for farmers. This will train producers and others in how to cultivate the *Beauverria bassiana* fungus and to use it to manage the biological control of the borer. They will also learn how to use Hypotan to trap and monitor the borer.

ACIAR will fund the activities and it will be facilitated through CABI.

It is also expected that funding from Indonesia and PNG can be allocated within the national (APBN) and provincial or district budget (APBD).

ADP/2005/068 Plausible futures for economic development and structural adjustment impacts and policy implications for Indonesia and Australia

Project duration : 31/12/2008 - 31/12/2011
Allocated budget : AUD 1,226,722.

Indonesia's agricultural economy urgently needs help to undertake high quality policy analysis focused on maintaining sustainable economic growth in the face of growing global economic and environmental pressures. This project will conduct an overview of Indonesian agricultural technologies, policies and associated data that affect economic growth and production efficiency. Activities will include data collection and analysis on agriculture-related technology, policies and institutions, and econometric modelling of policy options. The program will involve policy dialogues, study tours to relevant institutions and staff exchanges. Such activities are to improve the ability of Indonesian policymakers to review the contribution of agriculture to rural and wider

economic development and to design policies that can improve incomes, and relieve poverty and hunger in the mid to long term.

Indonesian policymakers will have better knowledge and decision support tools that can help them to look to future challenges posed by global environmental and economic change and to identify and examine areas in need of other policies. Fulfilling these aims will also bring out broader implications for the rest of the Asia-Pacific region, to show how regional economies, such as Australia, might best adjust to policy changes in Indonesia.

Collaborating Institutions

- International Food Policy Research Institute, Environment and Production Technology Division, USA
- Australian National University, Australia
- Indonesian Centre for Agriculture Socio Economic and Policy Studies, Indonesia
- Bogor Agricultural University, Indonesia
- University of Adelaide, Australia
- Ministry of Trade, Indonesia



Teak wood furniture factory

FST/2006/117 Improving added value and small to medium enterprise capacity in the utilisation of plantation timber for furniture production in Jepara region

Project duration : 31/12/2008 - 31/12/2013
Allocated budget : AUD 1,000,955.

The furniture industry is one of the big four Indonesian export industries (along with rubber, palm oil, and footwear). The industry relies heavily on timber as its raw material, with an annual requirement of up to 7.5 million cubic metres. Wood species used for furniture (mainly teak and mahogany) come from natural forest and from plantation or community forests. Jepara in Java is particularly known for its crafted wooden furniture, and the industry there involves 15,000 companies, mostly small to medium sized enterprises (SME). But furniture manufacturing in Jepara, as in other regions of Indonesia, is characterised by poor production management and inefficient production systems. This affects production efficiency, timber recovery rates, and quality of goods and causes too much timber waste. These SMEs would have higher returns were they to adopt better drying, treatment and finishing processes. This project is to support

the industry by improving value-adding from plantation timber production. The project's main objectives are to increase timber recoveries and furniture quality by improving processing and manufacturing methods for teak and mahogany, and to explore new manufacturing technologies for new products and designs that would be competitive in international markets. As well, the project will increase Indonesian timber processing research and training and also monitor and analyse economic the effect of improvements and innovations introduced to SMEs during the project.

Collaborating Institutions

University of Melbourne, Australia
Queensland Department of Primary Industries and Fisheries, Australia
Forest Research and Development Agency, Indonesia
Bogor Agricultural University, Indonesia
Gadjah Mada University, Indonesia
Technical College of Wood Technology, Indonesia
Center for International Forestry Research, Indonesia
Forum Rembug Kluster, Indonesia

Study opportunities making a difference



JAF survey report 2009

The long-term benefit of providing postgraduate scholarships to partners from developing countries is highlighted by the number who are now playing key roles and passing on their valuable knowledge and skills.

'Building the capacity of agricultural research institutions in partner countries in one of ACIAR's key priorities', said ACIAR Deputy CEO, Dr John Skerritt. 'This is crucial for ensuring development research outcomes are generated and sustained.'

'ACIAR helps build the capability of its partner institutions through on-the-job training of staff during the implementation of ACIAR-funded projects, along with offering specific training opportunities in Australia', he said.

A recent survey of returned ACIAR Fellows showed a very positive response from Fellows and from institute directors:

- 93 per cent of Fellows agreed their skills and knowledge acquired during their postgraduate studies were highly relevant to their current positions,
- 95 per cent of Fellows indicated their fellowship was a positive experience; fellows and directors identified research and writing skills, increased flexibility, openness to new ideas and the network of professional contacts as major benefits, and
- 99 per cent of Fellows were facilitating the transfer of knowledge and skills in their institute or current workplace.

An assessment of capacity building and training activities of ACIAR and of the Crawford Fund in 2007 showed that capacity building plays a major role in the success of research projects; one case study showed that it contributed 50 per cent (a conservative estimate) of the projects benefits.

Call for John Allwright Fellows for 2010 opens this May 2009

Just some advance notice that in May, ACIAR will be calling for applications for John Allwright Fellowships for study at Australian universities, beginning in 2010. The primary aim of the Fellowship scheme is to improve research capability in ACIAR's partner country institutions. Through the Fellowship award, funding is provided for research staff engaged on ACIAR projects to obtain postgraduate qualifications at Australian tertiary institutions. Although applications are welcome from participants in bilateral and in multilateral projects, applicants must be working in the following ACIAR bilateral partner priority countries, that is:

- in Papua New Guinea and in the Pacific (Fiji, Samoa, Tonga, Solomon Islands and Vanuatu),
- in SE Asia (East Timor, Indonesia, Vietnam, Cambodia, Laos and the Philippines),
- in South and North Asia (India, Bangladesh, Pakistan, Bhutan and Western China), and
- in the Republic of South Africa.

Up to two return airfares for a master degree student and up to three for a PhD student are permitted for fieldwork in the home country on the advice of the university supervisor and ACIAR. If fieldwork travel is considered

necessary, a request should be included in the study program that is submitted with the application for a fellowship.

The closing date for applications to reach ACIAR will be **31 July 2009**.



Australia-flag map

Asia-Pacific Agricultural Researchers Awarded Australian Fellowships

Parliamentary Secretary for International Development Assistance, Bob McMullan, presented the John Dillon Memorial Fellowship award to nine talented agricultural scientists and economists from the across the Asia-Pacific region on 17 March 2009.

The Fellowship recipients are visiting Australia, for six weeks at the invitation of the Australian government, for leadership training and to make valuable connections with Australians working in similar fields.

John Dillon Fellowships are provided by the Australian Centre for International Agricultural Research, ACIAR, for short-term leadership development opportunities in agricultural research management, agricultural policy and extension technologies to people who are participating in ACIAR-funded programs.

'Each member of the group has shown potential to lead research institutes and agencies in our partner countries and will be important contributors to the



The John Dilloners 2009

global effort to fight poverty and assure world food security', said Mr McMullan.

'The group of John Dillon Fellows is in Canberra from 10-20 March, visiting ACIAR, the Australian government's Department of Agriculture, Forestry and Fisheries, the Rural Industries Research and Development Corporation, and eWater CRC at the University of Canberra. The remainder of the program has been specially tailored to their individual management training needs.'

'The John Dillon Fellowship scheme is just one aspect of the valuable capacity building work ACIAR does', Mr McMullan said.

Personnel

There was a structural change of Echelon II positions at the Indonesian Agency for Agricultural Quarantine on 12 February 2009 as follows:

- **Hermansyah, SH MM**, Secretary of the Agency for Agricultural Quarantine
- **Drh Mulyanto, MM**, Director, Animal Quarantine
- **Dr Ir Catur Putra Budiman, MAgric**, Director, Center for Information and Biosecurity
- **Dr Drh Syafril Daulay, MM**, Head of Agricultural Quarantine Standards Laboratory

Airport Departure Tax Increases From 1 March 2009, at Soekarno Hatta Airport

- Domestic: Rp 40,000 (up from Rp 30,000)
- International: Rp150,000 (up from Rp100,000).