Submission No 17

ACIAR
Australian Centre for International Agricultural Research

21 October 2002

The Hon David Jull MP
Chair
Foreign Affairs Sub-Committee
Joint Standing Committee on Foreign Affairs, Defence and Trade
Parliament House
CANBERRA ACT 2600

Dear Mr Jull

Submission: Australia's Relations with Indonesia

On behalf of ACIAR, a submission to the above inquiry is forwarded for consideration.

In addition to myself, the relevant ACIAR contact point is Dr John Skerritt, the Deputy Director in charge of our Research and Development Program. His contact details are: (02) 6217 0510 and skerritt@aciar.gov.au.

Yours sincerely

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Executive Summary

- Indonesia is ACIAR's most important partner country and is likely to remain so in the medium term. Our objective is poverty reduction via higher agricultural incomes, with an increasing emphasis on Eastern Indonesia. Our project portfolio seeks to support the evolution of a stronger economy built on improved and sustainable agricultural productivity and accompanied by the right policy settings.

- In addition to advancing Australia's broader national interest, there are significant direct benefits to Australia in the ACIAR program. Our quarantine-related (crop protection and animal health) and fisheries project linkages are examples of this.

- The elements of Indonesia's National Agricultural Research System are sound but the decision to decentralise a number of government functions and policy-setting responsibilities such as agricultural extension and information transfer is posing a significant challenge. ACIAR is responding by building its project partners around regional institutions as well as the strong national institutions (usually based in Java).

ACIAR's Role

- ACIAR is a statutory authority in the Foreign Affairs and Trade portfolio established by the *Australian Centre for International Agricultural Research Act 1982*. Its establishment reflected the view that Australia could make a special contribution to development through sharing its agricultural research expertise. It does this by mobilising Australia's research capacity to help solve agricultural research problems of developing countries.

- ACIAR itself does not carry out research, but brings together research institutions in Australia and partner developing countries to work together on problems of mutual interest and benefit, in fields in which Australia has comparative advantage.

- ACIAR appropriation funding in 2002-03 is $48.5M. The bulk of these funds are allocated to bilateral projects where an Australian research agency is the lead contracting partner (commissioned organisation), and to related training programs, etc. $10M is allocated to the International Agricultural Research Centres (IARCs), primarily as Australia's core support for particular centres, with some funds allocated for multilateral projects commissioned through the Centres. As at end June 2002, ACIAR was funding 186 bilateral projects and 36 projects with the IARCs.

- Consistent with our aid priorities, our focus is the Asia-Pacific. We are involved in more than 20 countries. Our most significant relationships, in order of 2002-03 funding trends, are: Indonesia, China, Papua New Guinea, Philippines, India, Vietnam and the Pacific Island Countries.

ACIAR's Investment in Indonesia

- In 2001-02, our project-based investment in Indonesia was $4.6M and in 2002-03 it is forecast to be $4.2M. Indonesia is our largest single partner and is likely to remain so in the medium term. Total Australian aid to Indonesia in 2001-02 was $122M – second only in size to Papua New Guinea.

- As at end June 2002, ACIAR had 42 active bilateral projects and 6 active IARC projects in Indonesia, across the agriculture, fisheries and forestry sectors. The IARCs receiving core support through ACIAR generally have a development focus on the southeast Asian region, and thus the benefits of their programs flow to Indonesia among other countries in the region.

Current state of Indonesian Agriculture

- Statistics on the value and volume of Indonesia's crops and livestock sectors are at **Attachment A**. Rice (world's third largest producer), cassava and maize dominate agricultural land use. However, coconuts (world's largest producer), oil palm (second largest producer), rubber (second largest producer), coffee and cocoa are also significant crops. Raw agricultural products and agriculture-based manufacturers, including plywood and paper, account for roughly 35% of Indonesia's exports.

- Indonesia imports 3-5MT of rice annually and is likely to consume most of the internationally traded rice in Asia. Australia provides a major component of livestock products in terms of the live cattle trade and meat, with a major growth in the livestock trade for this year. In 2002, about 14% of Indonesia's beef consumption is met from imports, mainly live cattle exports from Australia (about 400,000 head). This dependency on imports is projected to grow to over 40% by 2010. Likewise, import dependency for dairy products is likely to grow from 16% to 35% over this period.

- Agriculture's share of the Indonesian economy is around 20% of GDP. It generates more than 40% of employment.

Current Priorities

- For our major partners including Indonesia, ACIAR holds formal consultations with counterpart agencies every 3-4 years. Formal consultations with Indonesia were held on 26-27 August 2002 in Jakarta and the record of those consultations is at **Attachment B.**

- It was agreed that the collaborative program would focus on poverty reduction in Eastern Indonesia. This is consistent with the focus of Autralia's overall aid program: "In Indonesia we are increasingly focusing on a core group of provinces in the Eastern Islands".[1]

- The key priority areas identified for shaping ACIAR's collaborative program with Indonesia over the medium term are as follows:

  - *Agricultural economics*: impact of decentralisation on natural resource management and development of better management policies; impact of trade agreements on food security and incomes of small producers; empowerment of small producers in agribusiness for better access to production factors and market returns; structural adjustment options for agribusiness to optimise economic and social benefits.
  - *Animal sciences*: - development of sustainable crop-livestock systems; enhancement of Bali cattle productivity through improved management and genetic improvement; management of livestock diseases to improve production and establish market access and trade relationships; disease risk assessment and risk management to enhance the safety of foods of animal origin and animal quarantine.
  - *Crop sciences*: an emphasis on crop protection, including Integrated Pest Management, especially in soybean, potato, crucifers, sugar and other vegetables; rodent pest control, including strategies for management in upland crops as well as paddy rice; host plant surveys and pre-harvest control of fruit flies; diagnosis and control of phytophora on citrus rootstocks, potato and pepper; management of major pests and diseases of bananas, including Fusarium wilt, blood disease and banana skipper; information systems for quarantine, including pest and disease compendia.
  - *Fisheries*: sustainable aquatic farming systems in inland, coastal and marine waters (genetic improvement, disease management, feeds and nutrition) for small and medium enterprises; stock assessment and management of shared and common-interest fisheries, including policy level research, IUU fishing issues and environmentally friendly fishing techniques; management of inland open water fisheries including aquaculture; improved processing, packaging and transport technologies which extend product life and increase market value.
  - *Forestry*: development and domestication of Eastern Indonesian species for income generation from non-timber forest products; species selection and breed to support plantation development, with emphasis on indigenous species, land rehabilitation and environmental services in Eastern Indonesia; development of tree farming (out-grower scheme) models with improved smallholder-plantation company cooperation; improved utilisation and value addition of timber from fast growing plantation species.

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[1] Hon. Alexander Downer, Minister for Foreign Affairs, 'Australian Aid – Investing in Growth, Stability and Prosperity', September 2002, page 23.

- *Land and water resources management*: improved irrigation efficiency and soil disease management in vegetable cropping systems; establishment of prescriptive regional fertiliser recommendations, including for micronutrients; application of seasonal climate forecasting for improved crop management; efficient water management in Eastern Islands irrigation systems.
- *Postharvest technology*: postharvest disinfestations for quarantine; postharvest control of mycotoxins in maize, copra and medicinal plants; value addition to agricultural products and utilisation of by-products, including for animal feed.

- In the most recent Aid Statement, the Federal Government has identified five guiding themes that link the poverty reduction strategy with individual aid activities: governance, globalisation, human capital, security and sustainable resource management. Our program properties cover four and arguably all, of these five themes.

  - Our work on *agricultural economics* is premised on achieving the right policy mix because, without it, sustained growth and poverty reduction is not likely. This agenda covers both governance and globalisation.
  - In terms of *human capital* all of our projects have a capacity building component. Sometimes it is the key enduring component of our efforts. In addition, ACIAR has developed a specific program of fellowships (John Allwright Fellowships) that link our projects to postgraduate training (usually Masters degree or PhD) at Australian universities. Eight of the current John Allwright Fellows are from Indonesia. ACIAR also provides leadership development opportunities for developing country scientists in the form of the John Dillon Memorial Fellowship. In this, its inaugural year, an Indonesian was the recipient of a John Dillon Memorial Fellowship. In Eastern Indonesia, several ACIAR projects involve AusAID-trained university graduates.
  - ACIAR has significant impact on *security* through the development of close relationships with community, government and researchers.
  - Our work on *sustainable resource management* is our core business. The majority of Indonesia's poor live in rural areas and the poorest areas are in Eastern Indonesia. Our objective is a strong economy built on sustainable agricultural productivity and accompanied by the right policy settings. Examples of current work on sustainable resource management range from development of new approaches for management of crop production in difficult soils, collaboration on assessment of fisheries stock status, through to policy research on balancing conservation and utilisation of forested water catchments.

Current Projects

- A listing of current projects is at **Attachment C**. This listing covers the bilateral and multilateral (IARC) portfolio.

Recent Achievements

- Examples of recent achievements centre on the fisheries program and our work on pests and diseases. There are also good returns being achieved in projects focused on improving crop and livestock productivity.

- **Fisheries – Some examples**

  Indonesia and Australia share many interests along with a common marine border in the Timor and Arafura seas. Reflecting the growing importance of the partnership, ACIAR signed a Memorandum of Understanding in November 2001 with the Indonesian Ministry of Marine Affairs and Fisheries, and on this basis Indonesian and Australian scientists are currently working together on seven distinct projects.

  Subjects include population studies of the shark and ray fisheries in eastern Indonesia, assessment and management of shared snapper fisheries between Indonesia and Australia, and the options for developing policy and management frameworks to combat illegal, unreported and unregulated fishing activities in Indonesia and Philippine waters. This last project contributed to the recent signing of a **general cooperation agreement between Indonesia and the Philippines to address outstanding sea boundary issues and to work towards the sustainable management** of shared fisheries in the Celebes Sea.

  Assessments of shared Indonesia-Australia fish resources, aimed at **improving the sustainability and productivity of red- and gold-band snappers**, have facilitated bilateral negotiations to develop complementary management strategies by Australia and Indonesia. The project has also identified Indonesian and Australian nursery areas for red snapper and other important habitats, and has highlighted the unsustainable nature of current catch levels in Indonesia. **Studies on sharks and rays in Indonesian waters have identified 128 species** to date (20% of which are new to science), confirming Indonesia's importance as a key centre of shark and ray biodiversity in the region.

  An effective low-cost measure to better manage soil conditions for **improved productivity and profitability of under-performing aquaculture** ponds has been demonstrated in Sulawesi. A GIS mapping system capability has also been established for use in determining land suitability and capability for aquaculture.

  A suite of projects has addressed the problems of decline in cultured shrimp production which started in 1996 and led to losses of around US$300 million a year. The shrimp industry in entire regions, along with the livelihoods of numerous small producers, was under threat. Two problems, viral diseases and the acidic water of shrimp ponds built in acid sulphate soil areas, have been addressed. **Successful remediation methods have led to healthy shrimp** once more surviving to harvest – in the case of one trial this was something that had not been seen in the area for three years. Under a related activity, project scientists in several parts of Indonesia have commenced training and extension programs to improve the knowledge and practical skills of smallholder shrimp farmers, enabling them to better control and manage shrimp disease threats.

  Breakthroughs in larval and early growout nutrition in the **farming of marine finfish**, together with improved husbandry techniques and better disease prevention and control protocols, have contributed to routine hatchery production runs achieving **unprecedented survival rates** (of the order of 30-50% where previously 5% was considered high). Smallholders in Bali and other islands have successfully and profitably adopted these rearing techniques.

- **Pests and diseases – Some examples**

  Management of rodent pests in rice-based farming systems has improved, with on-farm testing in lowland rice production systems indicating a **successful reduction in rodent populations**, rice yields 0.5t/ha higher, low damage to rice and lower poison usage. Dissemination of information on this system has been furthered though the publication, in Bahasa Indonesia, of *Non-chemical control of rodents in lowland irrigated rice crops*, a guide to using the trap barrier system for rats.

  Control of Jembrana disease, a major problem for Bali cattle, has improved through an extensive training input that has established a national capacity for diagnosis of the disease in five regional laboratories. Through capacity building associated with ACIAR supported research the Research Institute for Animal Health has become recognised as a regional reference centre for the diagnosis, epidemiology and control of the giant liver fluke.

  A sugar project is surveying indigenous germplasm, pests and diseases of sugarcane in eastern Indonesia and neighboring PNG and northern Australia, to **improve sugarcane management and regional quarantine**. Indonesia has the important diseases smut and ratoon stunting disease and spread further east could threaten both PNG and Australia. PNG also has some unique important pests and diseases – Ramu stunt, downy mildew and stalk borer which could endanger the Indonesian and Australian industries. The findings of the survey in this region are therefore critical. Australian varieties that have shown smut resistance have been provided for breeding and commercial assessment by the Indonesian Sugar Research Institute.

  Chromolaena odorata (Siam weed) has become one of the most serious weed problems in the wet tropics of Asia and Africa and also poses a threat to Australia. This ACIAR project released and monitored a variety of insects for **biological control of *Chromolaena odorata*** in Indonesia.

- **Crop and livestock productivity – Some examples**

  Adoption of **simple management strategies for Bali breeding cows** to suit the needs of farmers on the east Indonesian islands of Lombok and Sumbawa has lifted fertility to over 90% and virtually eliminated calf mortality. Feed and labour costs have been reduced with weaned male calves sold for an immediate cash return and cows in better condition for working.

  A technique for **mass propagation of tea plants** is allowing wide-scale replanting of green and other tea by smallholders, whose inability to replant as often as needed has led to declining yields.

  Use of **raised beds for rainfed cropping on vertisol soils** in Lombok has created a way of growing high-value vegetables that were previously susceptible to water logging during the wet season. Labour requirements have also been reduced.

  In Sulawesi, field plantings of **local cocoa selections are screened for resistance** to cocoa pod borer, vascular streak dieback and Phytophthora pod rot. Losses due to pests and diseases have jeopardised the livelihoods of more than 300,000 smallholder cocoa producers.

Future Directions and Challenges

- Indonesia's current population is 210 million and is predicted to grow to more than 230 million in the next twenty years. Average life expectancy is now 66 years, having increased by nearly 20 years in the past 30 years. GDP per capita is around AUD 1000. Around 20 per cent of the population are living in poverty.

- Indonesia's challenge is to ensure economic growth provides sufficient food from either domestic resources or international markets. ACIAR investments that promote agricultural productivity and better policies can help that challenge.

- Our investments are small but, at the margin, crucial to ensuring that focused research is facilitated. As an example, the research component of the annual budget of Indonesia's Agency for Agricultural Research and Development (AARD) is less than AUD 100 million. While not all our funds go to AARD, they are material in helping ensure that maximum value is extracted from infrastructure put in by Indonesia and other donors.

- Our biggest challenge is to work with national (usually Java-based) institutions to focus our collaboration more on Eastern Indonesia and on poverty reduction. Indonesia's decentralisation policies mean that ACIAR needs to work differently. Our projects now have a strong regional focus and extension/adoption strategies are built into project design. Without this, our engagement with Indonesia would build research capacity but not achieve an improvement in the economy.

INDONESIA – KEY LIVESTOCK AND CROP STATISTICS

	Value of Production			Harvested Area			Value of Production	
Rank	**Crops**	**Value (000 US$)**	**Relativity**	**Crops**	**Area (000ha)**	**Relativity**	**Livestock**	**Value (000 US$)**	**Relativity**
1	Rice, Paddy	9,380,156	1.00	Rice, Paddy	11,498	1.00	Pig meat	977,092	1.00
2	Coconuts	1,436,133	0.15	Maize	3,547	0.31	Chicken meat	888,938	0.91
3	Maize	1,163,684	0.12	Coconuts	2,551	0.22	Beef and Veal	831,263	0.85
4	Cassava	1,023,476	0.11	Natural Rubber	2,266	0.20	Hen eggs	473,147	0.48
5	Natural Rubber	779,666	0.08	Oil Palm Fruit	1,738	0.15	Eggs, excluding Hen	146,236	0.15
6	Peanuts in shell	484,647	0.05	Cassava	1,218	0.11	Goat meat	102,816	0.11
7	Bananas	483,861	0.05	Soybeans	1,095	0.10	Cow milk, whole, fresh	101,422	0.10
8	Beans, dry	479,816	0.05	Coffee, Green	840	0.07	Mutton and Lamb	81,056	0.08
9	Sugar Cane	455,054	0.05	Peanuts in shell	643	0.06	Wool, greasy	77,505	0.08
10	Coffee, Green	436,070	0.05	Beans, dry	553	0.05	Goat milk	65,577	0.07
11	Fruit Tropical	398,374	0.04	Cocoa beans	383	0.03	Buffalo meat	52,342	0.05
12	Soybeans	307,385	0.03	Cloves, whole & stems	376	0.03	Sheep milk	33,549	0.03
13	Cocoa beans	219,505	0.02	Sugar Cane	374	0.03	Duck meat	20,736	0.02
14	Tea	213,166	0.02	Fruit Tropical	240	0.02	Horse meat	1,956	0.00
15	Tobacco leaves	205,624	0.02	Cashew nuts	236	0.02	Cattle Hides, fresh	0	0.00

AUSTRALIA-INDONESIA CONSULTATIONS ON AGRICULTURAL RESEARCH PRIORITIES –RECORD OF MEETING

Priorities for collaborative agricultural research between Australia and Indonesia were discussed on 26-27 August 2002 in Jakarta at a consultation between ACIAR and representatives of relevant Government Ministries and Agencies (including the Indonesian Agency for Agricultural Research and Development, Forestry Research and Development Agency, the Agency for Marine and Fisheries Research, the universities, Indonesian Institute of Science (LIPI), the private sector and farmers' associations. Priorities for collaboration in fisheries were agreed at a similar meeting on 29-30 July 2002.

These priorities are not to be considered as officially sanctioned priorities of the Government of Indonesia. They are priorities expressed by participants at the consultation at a particular point in time. ACIAR will use them as a framework when assessing proposals for collaborative projects to be supported by ACIAR, subject to further advice and information from Indonesia. Researchers intending to propose collaborative research projects with Indonesian counterparts for ACIAR support should, in the first instance, approach one of ACIAR's Research Program Managers.

It was agreed to maintain the emphasis of the collaborative program on poverty reduction in Eastern Indonesia. Several overarching issues were identified. Research should contribute to increases in both the productivity and competitiveness of Indonesian agriculture. Project outcomes should aim to increase the use of innovation and technology in rural areas, for example, to drive greater value-addition of Indonesian agricultural products and to develop export markets. Research should assist in increasing farmers' incomes through shifting emphasis from factor-driven production agriculture to the development of integrated agribusinesses. This may require collaborative R&D on industry and trade policies, marketing structures and options, including the interface with post-harvest technological quality. Conservation of the resource base for agriculture will be assisted by research collaboration on aspects of biological security and through research that takes into account the implications of decentralisation for the sustainable management of fisheries, forestry and land resources.

Research projects should be driven by design and implementation processes that include end-users, address their socio-economic situation, and provide for greater information transfer to farmers and other end-users. In Eastern Indonesia there are opportunities to capitalise on linkages between central research institutions and location-specific adaptive research that directly addresses farmers' needs. More follow-up activities that enhance the transfer of technology of earlier ACIAR projects will be pursued, and opportunities for greater involvement of industry explored. Capacity building in research and innovation management, particularly intellectual property, bio-safety and plant variety rights systems will be supported.

Agreed priorities are listed under selected ACIAR program areas.

Agricultural Economics

- Impact of decentralisation on natural resource management and development of better management policies
- Impact of trade agreements on food security and incomes of small producers
- Empowerment of small producers in agribusiness for better access to production factors and market returns
- Structural adjustment options for agribusiness to optimise economic and social benefits)

Animal Sciences

- Development of sustainable crop-livestock systems
- Enhancement of Bali cattle productivity through improved management and genetic improvement
- Management of livestock diseases to improve production and establish market access and trade relationships
- Disease risk assessment and risk management to enhance safety of foods of animal origin

Crop Sciences (emphasis on crop protection)

- Integrated Pest Management, especially in soybean, potato, crucifers and other vegetables
- Rodent pest control, including strategies for management in upland crops as well as paddy rice
- Host plant surveys and pre-harvest control of fruit flies
- Diagnosis and control of phytophthora on citrus rootstocks, potato and pepper
- Management of major pests and diseases of bananas, including Fusarium wilt, blood disease and banana skipper
- Information systems for quarantine, including pest and disease compendia

Fisheries

- Sustainable aquatic farming systems in inland, coastal and marine waters (genetic improvement, disease management, feeds and nutrition) for small and medium enterprises
- Stock assessment and management of shared and common-interest fisheries, including policy level research, IUU fishing issues, and environmentally friendly fishing techniques
- Management of inland open water fisheries including aquaculture
- Improved processing, packaging and transport technologies which extend product life and increase market value

Forestry

- Development and domestication of Eastern Indonesian species for income generation from non-timber forest products
- Species selection and breeding to support plantation development, with emphasis on indigenous species, land rehabilitation and environmental services in Eastern Indonesia
- Development of tree farming (out-grower scheme) models with improved smallholder and plantation company cooperation
- Improved utilisation and value addition of timber from fast growing plantation species

Land and Water Resources Management (emphasis on crop management)

- Improved irrigation efficiency and soil disease management in vegetable cropping systems
- Establishment of prescriptive regional fertilizer recommendations, including for micronutrients
- Application of seasonal climate forecasting for improved crop management
- Efficient water management in Eastern Islands irrigation systems

Postharvest Technology

- Postharvest disinfestation for quarantine
- Postharvest control of mycotoxins in maize, copra and medicinal plants
- Value addition to agricultural products and utilization of by-products, including for animal feed.

CURRENT ACIAR PROJECT PORTFOLIO – INDONESIA

Bilateral projects (commissioned through an Australian research agency)

ADP/1994/049	Policy analysis of linkages between Indonesia's agricultural production, trade and environment
ADP/2000/100	Contract farming, smallholders, and rural development in East Java, Bali and Lombok
ADP/2000/126	Microfinance for agricultural producers in West Nusa Tenggara (WNT) Province, Indonesia: Issues and opportunities for a sustainable financial intermediary system
ASEM/1999/013	Improved marketing of mandarins in East Nusa Tenggara in Indonesia and northern Queensland
ASEM/1999/093	The role of carbon sequestration credits in influencing the economic performance of farm forestry systems
AS1/1996/160	Control of fasciolosis in cattle and buffaloes in Indonesia, Philippines and Cambodia
AS1/1997/027	Genetic and immunological characterisation of high resistance to internal parasites in Indonesian Thin Tail Sheep
AS1/1998/036	Management of rodent pests in rice based farming systems
AS1/2000/009	Development of diagnostic and control methodologies for animal trypanosomiasis (Surra) in Papua New Guinea, Indonesia, the Philippines and Australia
AS1/2000/029	Production of a vaccine for the control of Jembrana disease in Indonesia
AS1/2000/083	Development of a vaccine for the control of Gumboro in village and small poultry holdings in Indonesia
AS2/1998/090	CD-ROM development: efficient pig management in tropical Asia
AS2/1999/060	Control of bees and bee mites in Indonesia and the Philippines
AS2/2000/103	Developing an integrated production system for Bali cattle in the eastern islands of Indonesia
AS2/2000/124	Prospects for improved integration of high quality forages in the crop-livestock systems of Sulawesi, Indonesia
AS2/2000/125	Optimising crop-livestock systems in West Nusa Tenggara Province, Indonesia
AS2/2000/157	Leucaena management in West Timor and Cape York
AS2/2002/017	Potential effects of globalisation on the structure of livestock production in Asia
CS1/1996/140	Biological threats to Saccharum germplasm and sugar production in Papua New Guinea, Indonesia and Australia
CS2/1994/126	Cassava safety: Development and evaluation of simple tests of the cyanogenic potential of cassava flour and cassava tubers
CS2/1996/091	Biological control of Chromolaena odorata in Indonesia, Papua New Guinea and the Philippines
CS2/2000/090	Liriomyza huidobrensis leaf miner: developing effective pest management strategies for Indonesia and Australia
CS2/2000/093	Development of a diagnostic key for tropical rice disorders
CS2/2000/094	Diagnosis and control of soilborne fungal diseases of plants in Indonesia
FIS/1997/022	Remediation and management of degraded earthen shrimp ponds in Indonesia and Australia

FIS/1997/073	Improved hatchery and grow-out technology for grouper aquaculture in the Asia-Pacific region
FIS/1997/165	Biology, fishery assessment and management of shared snapper fisheries in northern Australia and eastern Indonesia
FIS/1999/076	Development of Leading Centres for mud crab culture in Indonesia and Vietnam
FIS/2000/061	Development and delivery of practical disease control programs for small-scale shrimp farmers in Indonesia, Thailand and Australia
FIS/2000/062	Artisanal shark and ray fisheries in Eastern Indonesia: their socio-economic and fisheries characteristics and relationship to Australian resources
FIS/2000/128	Community-based management of the Terubuk fishery in Riau, Indonesia.
FIS/2001/079	A review of Indonesia's Indian Ocean tuna fisheries and extension of catch monitoring at the key off-loading ports
FST/1998/096	Domestication of Australian trees for reforestation and agroforestry systems in developing countries
FST/2000/016	Breeding to enhance productivity of plantations of melaleucas for essential oil production in Indonesia
FST/2000/122	Application of molecular marker technologies for genetic improvement of forest plantation species in Indonesia and Australia
FST/2000/123	Heart rots in plantation hardwoods in Indonesia and southeast Australia
LWR2/1996/215	Capturing the benefits of seasonal climate forecasts in agricultural management
LWR2/1999/005	Improved soil management on rainfed vertisols in Nusa Tenggara
PHT/1996/193	Survey of the presence and importance of Phytophthora in Southeast Asia
PHT/1997/017	Reducing aflatoxin in peanuts using agronomic management and bio-control strategies in Indonesia and Australia
PHT/1997/161	Market based analysis of constraints to banana industry development in Indonesia and Australia
PHT/2000/102	Selection for improved quality and resistance to Phytophthora pod rot, cocoa pod borer and vascular-streak dieback in cocoa in Indonesia

Multilateral projects (commissioned through an International Agricultural Research Centre)

AS1/1997/133	Sustainable endoparasite control for small ruminants in Southeast Asia
AS1/1998/010	Managing the rumen ecosystem to improve utilisation of thornless acacias
AS1/1998/054	Poverty alleviation and food security through improving the sweet potato-pig systems in Indonesia and Vietnam
CS2/1998/078	Sustainable integrated management of whiteflies as pests and vectors of plant viruses in Asia
FST/2001/020	Alternatives to slash and burn in SE Asia, phase 3: Facilitating development of agroforestry systems
LWR2/1999/003	Integrated nutrient management in tropical cropping systems: Improved capabilities in modelling and recommendations