

Four-year snapshot

| Financial (\$ million) | 2003-04 | 2004-05 | 2005-06 | 2006-07 |
|--------------------------------|---------------|---------------|---------------|---------------|
| Revenue | | | | |
| Appropriation | 46.852 | 47.523 | 49.334 | 50.362 |
| AusAID funds | 3.169 | 3.646 | 5.437 | 9.906 |
| Other revenue | 0.053 | 0.322 | 0.807 | 0.629 |
| Total | 50.074 | 51.492 | 55.578 | 60.898 |
| Expenditure | | | | |
| Bilateral research | 27.732 | 29.507 | 32.805 | 36.206 |
| Multilateral research | 10.200 | 9.984 | 10.002 | 10.310 |
| Education and training | 2.464 | 2.565 | 2.909 | 4.132 |
| Communicating research results | 0.752 | 0.777 | 0.690 | 0.657 |
| Salaries | 4.795 | 4.748 | 5.177 | 5.153 |
| Corporate support | 4.065 | 3.820 | 3.836 | 4.385 |
| Total | 50.008 | 51.401 | 55.419 | 60.843 |

| Operations | 2003-04 | 2004-05 | 2005-06 | 2006-07 |
|---|---------|---------|---------|---------|
| Collaborative Research | | | | |
| Projects active in FY | | | | |
| Bilateral | 192 | 201 | 267 | 292 |
| Multilateral | 29 | 26 | 30 | 30 |
| Projects started in FY | | | | |
| Bilateral | 38 | 51 | 76 | 97 |
| Multilateral | 8 | 7 | 6 | 8 |
| Projects extended in FY | | | | |
| Bilateral | 33 | 41 | 47 | 106 |
| Multilateral | 5 | 4 | 2 | 10 |
| Projects reviewed in FY* | 34 | 24 | 34 | 35 |
| Projects completed in FY** | 50 | 43 | 93 | 96 |
| Building capacity | | | | |
| Non-project specific training courses | 8 | 13 | 13 | 12 |
| Fellowships | | | | |
| John Allwright Scholars active in FY | 50 | 52 | 57 | 96 |
| Scholarships awarded in FY | 6 | 10 | 15 | 61 |
| John Dillon Fellows in FY | 3 | 6 | 5 | 7 |
| Our Staff | | | | |
| Staff - Public Service Act (FTE) | 44.3 | 42.04 | 44.44 | 43.84 |
| Overseas officers - Locally engaged (FTE) | 18.8 | 20.5 | 20.5 | 20.5 |

* Includes both bilateral and multilateral projects

** Includes both bilateral and multilateral projects concluded and to be concluded as at 30 June 2007. Some of these projects may be extended following a review process.

2006–07 at a glance

- Revenue increased from \$55.6 million in 2005–06 to \$60.9 million in 2006–07. This larger revenue base came from increased AusAID support for:
 - The ACIAR components of the Smallholder Agribusiness Development Initiative in Indonesia (SADI).
 - Postgraduate training—the John Allwright Fellowships.

More on pages 40, 101, 133

- Outlays lifted to \$60.8 million in 2006–07 from \$55.4 million in 2005–06. The operating surplus for 2006–07 was \$55,000, compared with \$159,000 in 2005–06.

More on pages 133, 157

- The number of active projects increased from 297 in 2005–06 to 322 in 2006–07. This increase comes from a number of scoping studies which are really pre-project feasibility studies. ACIAR's intention is to do larger, fewer projects based on stronger due diligence. This will underpin our efforts to focus our joint programs with partner countries.

More on page 6

- During 2006–07 we expanded our postgraduate training scheme with the support of AusAID. Our long-term goal is to have trainees associated with most bilateral projects. In 2006–07 we had nearly 100 active scholarships compared with 57 in 2005–06. Our Impact Assessment Program took a very significant step forward in 2006–07, with its ground-breaking work on assessing the impact of such training.

More on page 101

- The foundations of the ACIAR component of Smallholder Agribusiness Development Initiative (SADI) in Indonesia were put in place during 2006–07. Our component will be fully operational in 2007–08.

More on page 40

- Our programs in Pakistan, Afghanistan and Iraq continued to be challenged by circumstance, but continued to deliver results in 2006–07.

More on pages 73, 80, 81

- During 2005–06, ACIAR worked closely with the Department of Foreign Affairs and Trade (DFAT) on the new governance arrangements that came into effect on 1 July 2007.

More on page 121

- Staffing levels (FTEs) at ACIAR did not increase in 2006–07, but we did take on additional contractors in Indonesia to cover part of our SADI involvement. Outlays on salaries increased from \$5.2 million in 2005–06 to \$5.3 million in 2006–07.

More on page 6



Young Indonesian school-girls returning home at the end of the school-day

Impact assessment snapshot

ACIAR's impacts—major efforts this year

Capacity building has always been recognised as a significant part of ACIAR's focus and source of impacts.

This year we commissioned a study to develop a framework for quantifying these impacts on a consistent basis as with the direct effects which are usually measured. This produced a significant advancement in methodology.

The framework was applied to three projects, and returns to capacity building were found to be up to \$199 million net present value (NPV). In some cases, this far exceeded the benefits from the direct impacts.

This year, stratified random sampling was also used to choose four projects for assessment. This is probably the first time this approach has been used anywhere.

A range of impact benefits were estimated from very high, a NPV of \$199 million to no measurable impact yet, for one of the projects. In that case the research did, however, contribute to a better understanding of what makes mangos flower. This output has contributed to further research which may solve this important problem and produce impacts, some of which would be attributable to this project.



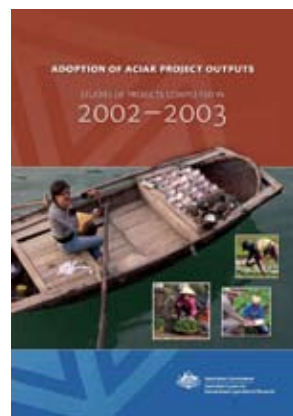
Mango flowers

ACIAR's impact assessments

Seven assessments were published in 2006–07 all showing continued strong investment returns for ACIAR research.

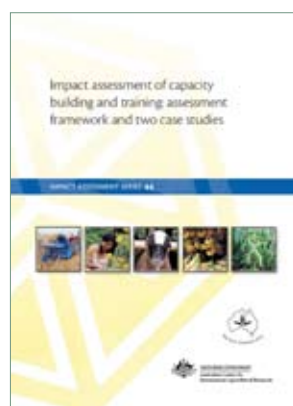
ACIAR's adoption studies

Large projects (more than \$400,000) completed in 2002–03 were reviewed, with results published in a summary report.



Capacity building has high returns on investment.

ACIAR and the ATSE Crawford Fund commissioned a study to develop a framework for quantifying the benefits from capacity building activities associated with research projects. This was applied to two case study research projects. One on pigeon pea breeding in India found that the capacity built through the project generated a NPV of \$67.6 million with a benefit cost ratio of 28:1 and IRR of 23%. For the other, on water management in Vietnam, the benefits were much smaller at \$82,800 but the return on a smaller investment was sound with a benefit cost ratio of 13:1 and an IRR of 28%.





Development of eucalyptus plantations in China reviewed.

Previous impact assessment studies have shown that the return to forestry research investment on eucalypt species in China has been extremely high. An extensive plantation forestry sector has developed during the last 30 years and a large share is planted to eucalypts. The research which supported this development has provided major improvements in tree productivity. Estimates of the returns on the research investments show that the NPV of these gains is over \$900 million. However, the development story is very complex and ACIAR felt that it was important to document this. This report shows that such substantial development and growth requires a combination of efforts from research through to, significant policy commitments to other investments. The review provides an important illustration of these and lessons for others.



Better understanding of bee mites reduces quarantine risks.

Honeybees provide several services to national economies, ranging from the honey produced to pollination of many crops. Varroa mites are a major bee pest throughout the world and cause substantial losses, and therefore costs, to many industries via their impact on bees. Australia is the only country which does not have this pest. ACIAR funded research has led to some major breakthroughs in understanding this pest and then subsequent improvements in quarantine procedures which reduce the cost and especially reduce the risk of incursion. The study shows that the NPV of the benefits are \$100 million with a benefit cost ratio of 25:1 and IRR of 30%. In this case the major share of the benefits is to Australia.



Improved Australian tree species have a significant impact in Vietnam.

Following the substantial success of Australian trees species in many countries including China and Brazil, collaborative research adapted these species to best suit Vietnamese conditions. The results have been rapidly adopted in Vietnam and the study has shown that the benefits for the research were around a NPV of \$130 million, benefits cost ratio of 83:1 and IRR of 32%.



Technologies to treat mangos for fruit fly lead to increased trade.

Fruit flies are a major pest in many countries with species varying between countries. Chemicals have traditionally been used to control these pests and this use was accepted to satisfy quarantine requirements. However, increasingly these chemicals are not accepted, so other treatment technologies are required to maintain access to most markets. Mangos are a relatively high value export crop for Thailand, the Philippines and Australia. This project adapted methods from other research and provided cost effective heat treatment for the three countries. The returns on this investment were found to be a NPV of \$20.8 million, benefit cost ratio of 5:1 and IRR of 27%. Estimating the share of the larger gains which were estimated in the study to attribute to this research was a major issue for the study.

Message from the Chief Executive Officer and outgoing Chair

The World Development Report 2008: Agriculture for development

The World Bank recently released its World Development Report 2008: Agriculture for development. This Report focuses on the unique features of agriculture as an instrument for broad-based economic development. It is the first time in 25 years that the Report's focus has been on agriculture. As the Report states *'it is time to place agriculture afresh at the centre of the development agenda, in a vastly different context of opportunities and challenges'*.

From an ACIAR perspective, this Report and last year's Australian White Paper on Aid provides an opportunity for us to reflect on the key messages for rural development and economic growth and determine whether there are lessons for ACIAR programs in Asia and the Pacific.

The linkages between agriculture, development and poverty vary substantially between countries in our region. In some, agriculture is a major source of broader economic growth, and, in others, like China, agriculture is no longer the major source of national growth. However, in all cases poverty remains overwhelmingly rural and, even in China, agricultural productivity remains a challenge to feeding growing populations.

Even in our region, the trends in poverty reduction are not uniform. While the number of people in East Asia and the Pacific living on less than \$1 per day fell from almost 500 million in 1990 to less than 200 million today, the number of rural poor has continued to rise in South Asia. A similar trend is evident in the Sub-Saharan African Region.

This heterogeneity among countries is one of the themes of the World Development

Report—as it should be. The focus of ACIAR's programs in countries like East Timor and Papua New Guinea is very different to those in China or India. For some countries, our primary legacy will be the emerging strength of the agricultural research systems in partner countries and having helped get agriculture moving, lifting the productivity of food staples. For others, it will be the shift to higher-value agriculture, enhancing the vital role of the private sector in linking agriculture to markets and consumers and narrowing the income and productivity gaps between favoured and less-favoured regions. And for others, our joint efforts are clearly on the natural resource agenda in areas such as groundwater depletion, soil fertility, fisheries management and climate change. The 'Year in Review' section of this Annual Report reflects this inherent heterogeneity of our partner country relationships.

ACIAR's mandate is research for development—it seeks to promote innovation through science and technology and better institutional frameworks. The goal is adoption and higher incomes. But research is only one of the broad arrays of policy instruments required to foster agricultural development. The World Development Report highlights this but does underscore the very important contribution of public sector agricultural research to making smallholder farming more productive and sustainable. In fact, it argues that a sharply increased investment in research and development must be at the top of the policy agenda.

Strengthening national systems

The scientific heterogeneity highlighted in the World Development Report is also what some have described as the growing divide between the scientific haves and have-nots. For example, the overall growth in the Asia

and Pacific region masks the fact that just two countries—China and India—accounted for 60% of scientific spending in the region in 1995, jumping to more than 75% this year. In contrast, research spending in the Pacific has barely grown. At the global level, five countries (USA, Japan, Germany, France and the United Kingdom) account for around 70% of the world's science spending.

Not only is the divide widening between the scientific haves and have-nots, there is an ongoing contraction in support for public agricultural research and development among rich countries and a shifting emphasis to privately-performed agricultural research with its own licensing/access provisions.

In response to these trends, ACIAR is moving strongly to strengthen the national systems of partner countries. There is much to be done if partner countries in our region are to have the capabilities to tap global research systems. During 2006–07 ACIAR has, with the support of AusAID, doubled the number of postgraduate students working in Australia on ACIAR-related research programs.

In addition, we have expanded our senior management training—the John Dillon Fellowships—so that national research agencies in partner countries have the necessary leadership, management and financial skills. Capacity strengthening takes time to bring its returns, and in one sense, if the strength of our developing country research partners is not driving forward, we are actually sliding backwards, given the dynamic nature of the research challenge.

This additional emphasis in 2006–07 on strengthening national systems is also reflected in our efforts to measure the returns to capacity building. This work has been motivated by the lack of evidence to support the strongly-held convictions that improving human capacity is inherently valuable and absolutely necessary for the achievement of development objectives. While this

measurement methodology is in its infancy, the two case studies published by ACIAR in 2006–07 show very high rates of return. In one case, a 3-year postdoctoral fellowship for an Indian scientist has estimated benefits of \$70 million, based on the relative importance of the training activity to achieving the scientific objectives, development of improved pigeonpea cultivars, and the time to adoption.

The importance of capacity building was highlighted in ACIAR's survey of overseas stakeholders carried out during 2006–07. A key message coming from this survey was the importance that partners placed on capacity building and the opportunity to work side-by-side with Australian research organisations. It also stands to reason that capacity building, with attendant human capital growth, is an essential component of effective adoption and sustainable research systems. This is a central feature of ACIAR's mission.

We also have a broader context in which to put our efforts to strengthen national research systems in our partner countries. The Australian Government's White Paper released in April 2006—*Australian Aid: Providing Growth and Stability*—places a renewed and special emphasis on 'investing in people'. These programs have many guises across the health and education sectors but one that stands out as an indicator of the Australian Aid Program's efforts is that, over the next 5 years, the number of education awards offered for the Asia-Pacific region will double to 19,000.

Feeding billions – when food makes fuel

Over the past year there have been significant increases in the international price of basic grain staples such as wheat, maize and rice. There are a number of reasons for this, including population growth and the rising demand for animal protein (eggs, milk, meat and aquaculture) that parallels the rapid economic growth in the most populous developing countries. But another key reason for the sharp price shifts is government policies that encourage biofuel production—

particularly in the United States where ethanol feedstock is now the highest value use for maize. Some argue that world agriculture is now at a turning point, with energy and climate change redefining the world food equation.

Without getting into the debate about turning points, what is clear is that global agricultural systems are going to be asked to increase on-farm productivity and output of staple crops to meet the emerging demands of bigger populations, economic growth and the biofuels sector. This is at a time when the implications of climate change are becoming more apparent, competition for land and water is growing and on-farm productivity is slowing down.

At ACIAR, it is not our intention to be diverted into the biofuels agenda in a major sense. There is a legitimate research agenda in the production and conversion processes but it is not considered to be the best fit for ACIAR funding. Our agenda is to redouble our efforts to facilitate increased and sustainable production of basic food staples. Productivity of food staples is one of the keys to growth. Doing it on a sustainable basis is another. As it is, cereal production will have to increase by nearly 50% by 2030 to meet projected food demand. Added to this is the growing demand for agricultural feed stocks for biofuels. The pressure to increase supply is more apparent than ever.

Looking ahead

The challenges are stark. Climate change, environmental degradation, rising competition for land and water, and higher energy prices are just four of these. At ACIAR, we will ensure that our joint efforts with partner countries continue to be focused on key challenges where the likelihood of success from research investment is high. This agenda will be tailored to the individual needs of partner countries and the scientific capacity of agricultural research institutions here in Australia and the group of International Agricultural Research Centres that ACIAR funds.

We are not the solution to every problem and we are not in the business of radically resetting our programs in the light of these challenges—however tempting that might be. Our primary concern is about expanding food production in line with the joint country priorities of Australia and our regional partners in the context of these challenges. That basic need has not diminished—it has just become harder to meet. To do that we will continue to help partner countries strengthen their national research systems, help narrow the income and productivity gaps between favoured and less-favoured regions, encourage private sector participation in the research adoption continuum where that makes sense and ensure that the contribution of women on smallholder farms is always recognised and maximised.

With the ACIAR team

ACIAR is continuing to play a vital role, entrusted with around \$60 million of Australian taxpayer funds in 2006–07. Its responsibilities are significant, and in some sense, onerous. But it is also a real privilege for the ACIAR team to try and help make a substantive difference in the livelihoods of those in our neighbouring region. As a wealthy country, we have that obligation.

2006–07 has been a challenging year for ACIAR staff. The expansion of our program in Indonesia and our scholarship program are but two initiatives that have required extraordinary efforts. We have also consolidated significant programs in Pakistan and East Timor, among other work across the spectrum of our work.

Our special thanks go to the ACIAR team and our research partners overseas and in Australia. Their efforts are unsung but hopefully this Annual Report provides a glimpse of their dedication and joint contributions.

Dr Meryl Williams
Outgoing Chair

Mr Peter Core
Director/CEO

Research Program Managers—at 30 June 2007



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ACIAR turns 25



ACIAR celebrated its 25th birthday on Wednesday 10 May 2007