

# Tracking performance

<b>Against the 2001–06 Corporate Plan</b>	<b>Page 139</b>
<b>Against the 2003–04 Portfolio Budget Statement</b>	<b>144</b>
<b>Against the 2003–04 Annual Operational Plan</b>	<b>147</b>
<b>Against Australia’s National Research Priorities</b>	<b>148</b>



## Vision

ACIAR looks to a world where poverty has been reduced and the livelihoods of many improved through more productive and sustainable agriculture emerging from collaborative international research

## Mission

To achieve more productive and sustainable agricultural systems, for the benefit of developing countries and Australia, through international agricultural research partnerships

## Outcome

Agriculture in developing countries and Australia is more productive and sustainable as a result of better technologies, practices, policies and systems

# Tracking performance: against the 2001–06 Corporate Plan



## Critical success factors

1. Research outputs (including agricultural policy analyses) that clearly align with improvements to productivity and sustainability of agricultural systems

## Key performance indicators

- Evidence of uptake and use of research outputs

## Performance 2003–04

- Six external impact assessments were conducted during 2003–04 to assess benefits from ACIAR-supported research
  - ACIAR and AusAID funded rodent control project adoption in Vietnam assessed as having a benefit: cost ratio (BCR) of 21:1 and a net present value of A\$1,565 per hectare. The success of this project has seen the Vietnamese Government officially endorse the rodent control methodology as Government policy
  - Genetics and breeding for rust resistance in wheat in India and Pakistan—present value benefit of \$57.2m, BCR of 17:1. These benefits are calculated mainly on the basis of training of Indian and Pakistani scientists.
  - Grain market reform in China, to demonstrate how China would benefit from efficiency gains, present value benefits of between A\$40.3m and A\$88.6m depending on the speed at which such benefits are instituted
  - Present value benefit of bringing forward commercial release of acacia hybrids in Vietnam by 4 years is \$152m (BCR 145)
  - Management and biology of coconut crabs on Vanuatu examining the results of initial project work and follow-up revealed benefits of A\$3.2m accruing over 50 years, with individual crab-collecting households benefiting by up to A\$2,700 per year.
  - Increasing agricultural production and environmental quality through water and nitrogen management in the north China Plain—present value benefits of \$219m; farmer income increased by \$50–\$109 per year
- Other evidence of uptake and use of ACIAR project research outputs obtained during 2003–04 includes:
  - Extension of the 'lus-frut mama' and mobile card schemes to provide additional income earning opportunities to smallholders in cocoa and coconut industries (see page 20)
  - PNG quarantine authorities having maps of the distribution of sugar cane pests and diseases following a project mapping their range
  - An economic model in place to help determine sustainable catches of migratory tuna for Pacific Island countries
  - Training in forest health surveillance methods for stakeholders in Fiji, Samoa, Tonga and Vanuatu
  - Expanding Burmese capacity to produce ACIAR-developed vaccines against Newcastle disease—a major threat to village and smallholder chickens
  - Through World Vision the extension of the results of projects on:
    - Producing chemical free vegetables in Thailand
    - Implementing community-based rodent management in Vietnam (see page 49)
  - Working with NGOs to disseminate improved varieties of seed for staple food crops (identified through ACIAR-supported research) in Afghanistan and East Timor
  - Improved weed control and nutrient applications for Eucalypt plantations in Kerala State in India

2. Government recognises and values ACIAR as an integral part of the Australian aid program

• Positive feedback from Australian Government

- In 2003–04, ACIAR responded to changing Government priorities, including in its project portfolio:
  - Collaborative agricultural R&D opportunities were assessed in the Solomon Islands with three new projects under development, and four projects initiated in the Tibet Autonomous Region of China. The majority of ACIAR's bilateral projects in China are now centred on or include significant research in the country's western regions, the poorest areas of China
  - Joint initiatives in the Philippines were developed and co-funded with AusAID to address the Prime Minister's commitment to assist in facilitating regional agricultural trade
  - ACIAR's bilateral project investments in PNG and the Pacific increased, and the Indonesia program was maintained as a major partner
  - Investigating the development of a small program of activities in Iraq with two projects now in development
- ACIAR actively contributed to relevant whole-of-government initiatives, including:
  - The National Research Priorities, through reporting and development of an implementation plan (see page 148 for reporting against these priorities)
  - Involvement in development of a cross-jurisdictional Tropical Science strategy
  - Participation in a Department of Agriculture, Fisheries and Forestry (DAFF) policy development initiative in biosafety and plant genetic resources
  - The formulation of several new AusAID country strategies and strategic reviews in Cambodia and PNG
  - Highlighting Australia's contributions to Thai agriculture through media visits and a commemorative function in Bangkok
  - Reporting on relevant ACIAR activities to the UN (such as efforts to combat desertification)
- The ACIAR Board, in conjunction with the Minister and in consultation with the Executive, establishes target ranges for our bilateral program. Actual expenditure for 2002–03 and 2003–04 (including AusAID funds) for each target is as follows

	Board target %	2002–03 as %	2003–04 as %
PNG & Pacific	10–20	18	19.8
Southeast Asia	50–60	48	43.5*
North Asia	10–20	16	18.1
South Asia	10–20	14	15.7
Africa	0–5		2.9
Other		1	0

\* Security concerns in Indonesia and the southern Philippines and the 2003 outbreaks of Avian Bird Flu and of Severe Acute Respiratory Syndrome limited travel in the region, causing outlays in Southeast Asia to remain below the target range for 2003–04.

• Funding to IARCs reflects their performance and needs and Australia's interests

- ACIAR continued to implement changes first adopted in 2002–03 to deliver a more strategic approach to engagement with IARCs, based on comparative research advantages to meet priorities of the Asia-Pacific region. Five of the targeted IARCs are located in this region, with six having a special responsibility for staple crops in the Asia-Pacific region. Project funding to IARCs is based on the Centres having a significant research capability that matches identified priorities and Australia's research capability with projects helping partner country's research efforts. All IARC projects now target benefits to the Asia-Pacific and Southern African regions that are the focus of the Australian aid program.

3. ACIAR's funding base secured, and flexible and realistic project funding arrangements in place

- ACIAR's appropriation at least maintained in real terms
- Co-investment by ACIAR and its research partners matches mutual priorities and ability of partners to contribute

- Evidence of financial support from other sources for research activities that are developed by ACIAR

4. Research priorities established in consultation with key stakeholders in partner countries and Australia, and with regional fora

- Project portfolio matches priorities

- Appropriation funding to ACIAR in 2003–04 was \$A46.83m, compared with \$A46.28m in 2002–03.
- Strong support has been obtained from a number of partners, including:
  - Increasingly seeking opportunities to work with NGOs to deliver the results of past and current research. In 2003–04 new projects were developed with several NGOs including World Vision (PNG, Thailand, Vietnam, Laos, Cambodia), Kastom Gaden (Solomon Islands), Quakers (Cambodia), CRS (Philippines). Other projects involving NGOs were designed in India, Afghanistan, PNG and South Africa.
  - Industry involvement in ACIAR projects continues to be strong. Projects designed or commenced in 2003–04 with the involvement of industry or industry groups include those on forest product marketing in the Philippines, maize and soybeans in Cambodia, sandalwood establishment in Vanuatu, fruit flies in Indonesia, monitoring prawn catches in PNG, smallholder income distribution from oil palm and cocoa in PNG, grain drying in India and fertiliser use in Southern Africa.
  - Research partners contributed 52 per cent of project costs in 2003–04, compared with 54 per cent in 2002–03.
- External contributions to ACIAR in 2003–04 were A\$3.2m, a higher overall contribution than 2002–03 (A\$2.8m). These external contributions were largely from AusAID, but also include co-investment or parallel investment in ACIAR-developed projects such as:
  - Grains Research & Development Corporation (*Brassica* breeding in China and India)
  - Horticulture Australia Limited (control of citrus greening disorder in Indonesia).
  - Rural Industries R&D Corporation and Department of Agriculture Fisheries and Forestry co-funding of biosecurity projects.
- Two formal consultations were held, the first to set priorities with the Pacific Island countries and the second with Vietnam. Pacific organisations and countries represented were Fiji, Kiribati, Samoa, Solomon Islands, Tonga and Vanuatu, along with the Secretariat of the Pacific Community. The Vietnam consultations drew together representatives of relevant Vietnamese Government Ministries, Departments and research organisations.
- 2003–04 was the first year ACIAR published an Annual Operational Plan, detailing project priorities by country and program area, to provide a greater level of focus for ACIAR operations and project development
- ACIAR responded to specific needs by developing and implementing projects to respond to specific needs of developing country partners that also matched ACIAR priorities. These included:
  - Livestock disease diagnosis and management in Laos
  - Trade liberalisation in India
  - Sweet potato production in PNG
  - Marketing of crops in Cambodia
  - Grasslands management in China
- Examples of projects undertaken in 2003–04 that match agreed partner country priorities, include:
  - In PNG, designing and initiating new projects on production and marketing of crops important for smallholder cash income, such as potatoes, sweet potatoes, vegetables and cocoa
  - In the Pacific, by developing a portfolio of activities designed to improve smallholder food security in the Solomon Islands
    - In Vietnam, developing new initiatives which build capacity in agricultural policy and R&D planning and addressing farm income generation
    - In China, initiating four projects in Tibet Autonomous Region and designing projects that address key land and water use policy issues, especially in western China
    - In the Philippines, ensuring that new projects directly involve end users such as farmer groups
    - In India, by developing new projects on trade policy and water resource management
    - Expanding our overall program with Cambodia with an emphasis on agricultural diversification

5. Streamlined, flexible, transparent and accessible project development and approval processes

• Time from start to finish of project development, and streamlining of implementation

6. Effective communication with key stakeholders

• Key groups within and outside ACIAR well informed and listened to by ACIAR

• Others call on ACIAR and project staff for consultation and advice

- For the seven major partner countries, the average time taken for project development (from first consideration at the In-House Review to Director's approval) was 11.0 months (compared with 13.4 months in 2002–03 and 15.1 in 2001–02). The average time taken for partner approval (overseas and domestic based on time taken from sending to return of MOUs) was 2.14 months (compared with 4.6 months in 2002–03 and 5.1 in 2001–02).
- More than 90 per cent of all project proposals brought to In-House-Review (ACIAR's internal mechanism for peer review of projects) matched relevant country priorities in the 2003–04 Annual Operational Plan (includes both bilateral and multilateral projects)
- In 2003–04, ACIAR started 38 new bilateral projects and eight new multilateral projects
- Project reporting guidelines are now universally used and have enabled on-time submission of annual and final reports presented in a format for web publication of summaries
- Project proponents are routinely using the ACIAR website to obtain information on country priorities and project application documentation
- Key groups outside ACIAR:
  - Statistical trends on visitors to the ACIAR website show 40 per cent of visitors are from partner countries
  - Australian stakeholders including DFAT, State and Federal Departments and key research partners (CSIRO, Universities, etc) in list of top 100 visitors
  - Annual Operational Plan, which provides key information on country strategies, priorities and financial allocations developed with input from key stakeholders, including the Policy Advisory Council
  - 2004–05 Annual Operational Plan finalised after consultation with Policy Advisory Council, AusAID, DFAT and Australian Heads of Mission
  - At the Federal Government level, continuing dialogue with AusAID, DFAT and Minister
- Key groups within ACIAR:
  - Delivery of project information database direct to ACIAR's Country Offices
  - Development of extranet portal
- ACIAR involvement:
  - In agricultural policy advice to the Chinese Vice Premier through the China Council for International Cooperation on Environment and Development
  - In further review of CGIAR research activities
  - In FAO meetings on responses to the Avian Bird Influenza (Bird flu) outbreak
  - In review of Australian assistance in Cambodia
  - With AusAID working groups and reviews on Bird Flu outbreak and on the review and design of AusAID projects
  - With Department of Agriculture, Fisheries and Forestry on biosecurity
  - As invited keynote speakers by senior R&D staff at international technical and development meetings
  - Of senior staff and Executive on Rural R&D Corporation Boards and Advisory Committees and on relevant interdepartmental committees

7. Capacity-building focused on the human resource development needs of collaborators; this includes the effective delivery of project outputs in targeted countries to achieve practical outcomes

- Capacity of partner country and Australian partners to identify and prioritise needs and conduct R&D, focus on problem solving, and deliver the results to farmers

- Fifty active John Allwright Fellowships for postgraduate study in Australia and three John Dillon Fellowships for short-term leadership development were provided.
- A survey of successful John Allwright Fellows who have returned to their home country revealed 80 per cent had been promoted from their first post-return position and believed that their experience gained during the Fellowship was a key factor. In addition 81 per cent of Directors of organisations employing returned Fellows indicated that the subsequent promotion of these Fellows was mainly due to this experience.
- ACIAR's collaborative approach to project design and implementation involves informal project training of partner country scientists and where applicable, involvement in formal training courses run by ACIAR and the Crawford Fund.
- Australian project scientists gain practical, on-the-ground experience in their own disciplines, increasing their knowledge and skills.
- Linking developing country research institutes in selected projects to NGOs and industry was a feature of ACIAR's 2003–04 program in PNG, Pacific Islands, Thailand, Laos, Cambodia, Vietnam, Philippines, South Africa, China and India.
- Training courses for developing country project scientists have been delivered in:
  - Australia and Indonesia on research management
  - The Pacific on research project evaluation
  - PNG on participatory action research
  - Cambodia on experimental design and analysis.
- Advice on impact assessment and formal training on research evaluation has been delivered to more than 50 Australian project leaders.

8. An appropriately skilled, committed and enthusiastic ACIAR workforce focused on tasks that enhance outputs

- Staff skills match the Centre's needs, training reflects priorities for skills enhancement, staff feel valued and performance is recognised

- Individual staff performance agreements include identification of training priorities, with the Human Resources section matching these priorities to available training, both for individuals and where warranted for groups, such as a training workshop on performance feedback. An average of \$1821 per member of staff was spent on training initiatives (excluding in-house training and workshops).
- An all-staff workshop was held in November 2003 with streamlining of approaches for planning and reporting and revised performance management addressed
- A revised recognition and reward scheme, allowing more flexible recognition of staff performance, was developed and agreed to in a majority vote (92 per cent) to vary the Centre's Certified Agreement
- An internal survey of staff perceptions of ACIAR support to help staff achieve a work-life balance revealed 94 per cent of staff agreed that these help them meet their needs
- A Values statement codifying the Centre's approach to open, honest communication, scientific and professional excellence, and innovation and creativity, was developed in 2003–04

# Tracking performance: against the 2003–04 Portfolio Budget Statement

Performance 2003–04	
Output	Indicator
<p>1.1 Collaborative research that addresses agricultural and natural resource management problems of developing countries and Australia</p>	<p><b>Quality:</b></p> <ul style="list-style-type: none"> <li>Regional investment profile is consistent with Australian Government aid priorities</li> </ul>
<p>ACIAR position (based on change in bilateral research expenditure by country and region from 2002–03 to 2003–04)</p>	<p>Government priorities (from <i>Australia's Overseas Aid Program 2003–04</i>)</p>
<p>PNG investment from 11.4 to 13.1% Pacific up from 6.0 to 6.7% Regional investment up from 17.9% (2002–03) to 19.8%</p>	<p>PNG—increasing investment Pacific Islands—increase</p>
<p>Indonesia maintained at 14.4% as large program Cambodia up from 2.5 to 3.9% Laos up from 2.1 to 2.8% Philippines down from 11.1 to 7.4% Vietnam steady at 8.1% Thailand down from 4.3 to 4.1% East Timor down from 2.6 to 1.1% Regional investment down from 47.8 to 43.5% China up from 14.9 to 16.6% (budgeted to fall in 2004–05 and 2005–06) South Asia rose slightly 13.5 to 15.7% (investment up due to AusAID-funded Afghanistan project) Africa down from 4.6 to 2.9% with 82% of projects in RSA (up from 70%)</p>	<p>Indonesia—maintain strong program Rising investment in: Cambodia Laos Philippines Investment in Vietnam steady Reduced investment in Thailand East Timor</p> <p>North Asia—reduced investment particularly in China South Asia slightly reduced investment</p> <p>African investment reduced and more projects in RSA</p>
<ul style="list-style-type: none"> <li>Research partners contribute 40–55 per cent of project costs</li> <li>&gt;90 per cent of concluding projects are assessed by external reviews as having achieved their main objectives</li> </ul>	<ul style="list-style-type: none"> <li>Partners contributed 52% of project costs</li> <li>ACIAR conducted 34 project reviews in 2003–04. 23 of these reviews showed '...that the projects have achieved at least 80% of their objectives. Two-thirds were extended to improve the potential for significant community impact.</li> </ul>

- There is further substantiated evidence of significant economic, social and environmental impacts from completed ACIAR projects
- Support for multilateral research providers is concentrated on those International Agricultural Research Centres with greatest comparative advantage

**Quantity:**

- 235–245 research projects will be delivering outputs during 2003–04

- >10,000 copies of ACIAR research publications and papers are requested or downloaded

**Quality:**

- >80 per cent of trainees indicate satisfaction with training

**Quantity:**

- > 100 trainees are in formal, ACIAR-supported training courses

- Four impact assessments published and three more completed; 12 commissioned adoption statements completed and received

- New IARC funding arrangements entered their second year in 2003–04 continuing the trend to fund fewer Centres based on those with a significant involvement in the Asia-Pacific region. Thirteen IARCs received core funding compared with 17 in 2001–02. Since late in 2002–03, all project-specific support has been designed to deliver benefits to the Asia-Pacific region and southern Africa.

- ACIAR had 221 active projects during 2003–04:

- 192 bilateral
- 29 multilateral projects
- ACIAR senior research staff, Executive and Board agreed to move to having larger, fewer projects.

- ACIAR distributed:

- 9,514 hard copies of publications in response to requests (cf 9,052 in 2002–03), 608 of these were sales.
- 10,960 unique visitors downloaded 74,924 copies of publications.

- Exit surveys on completion of all short training courses, using a 5-point scale, indicated over 95 % of trainees were satisfied to highly satisfied.

- In 2003–04, ACIAR had 50 active John Allwright Fellows undertaking postgraduate study in Australia, of which 6 were new awards.

- Three John Dillon Fellowships were awarded for research management training
- Nine cross-program training courses (average around 14 participants) were held with 123 attendees

1.2 Trained researchers in developing countries and Australia

## Operational issues and problems

ACIAR has, and will continue to adopt, a safety first approach, when approving travel for its own personnel and in negotiating travel for project personnel. The Centre follows the travel advisory updates issued by the Department of Foreign Affairs. Progress on two existing projects in the Democratic People's Republic of Korea has increased, though travel restrictions on DPRK scientists have curtailed some activities.

Concerns related to the security situation in Zimbabwe continue to constrain project implementation. Project development in Burma was also curtailed due to political and security issues. The impact of the Avian Bird Flu, and to a lesser extent SARS, in China and Southeast Asia also precluded activity in several projects. Ongoing security concerns relating to Pakistan, Papua New Guinea and the southern Philippines, especially southern Mindanao, have also slowed progress on some projects.

## Resources for outcome

### Financial performance

In 2003–04 ACIAR's direct expenditure on outputs 1 and 2, including bilateral and multilateral research projects, education and training of researchers and project-related publications disseminating research results, represented 82 per cent of expenditure.

The Centre has continued to maintain its healthy financial position. For 2003–04 we operated with a small surplus of \$78,671. The Centre will continue to operate a balanced budget in future years to maintain this position. A much stronger focus on effective balance sheet management has been introduced over the past year.

### Price of departmental outcomes

#### Outcome 1

Agriculture in developing countries and Australia is more productive and sustainable as a result of better technologies, practices, policies and systems.

	Actual (\$m) 2003–04	Budget estimate (\$m) 2004–05
<b>Departmental appropriations</b>		
Output 1.1: Collaborative research that addresses agricultural and natural resource management problems of developing countries and Australia	44.333	44.955
Output 1.2: Trained researchers in developing countries and Australia	2.499	2.568
Total revenue from government (appropriations) contributing to price of departmental outputs	46.832	47.523
	93.5%	93.1%
<b>Total revenue from other sources</b>	3.242	3.516
<b>Total price of departmental outputs</b> (Total revenue from government and from other sources)	50.074	51.039
<b>Total estimated resourcing for Outcome 1</b> (Total price of outputs)	49.995	51.039
	2003–04	2004–05
<b>Average staffing level (number)</b>	65*	65*

\* There has been a change in the basis of calculating staff numbers to include staff not employed under the Public Service Act to reflect the total staffing of ACIAR including locally engaged staff serving at overseas posts. The previous figure of 47 was based only on staff employed under the Act.



## Tracking performance: against the 2003–04 Annual Operational Plan

ACIAR published its first Annual Operational Plan (AOP) in June 2003, setting out research priorities for the 2003–04 financial year. The Plan, built around ACIAR’s appropriation for the financial year, provided a transparent window into ACIAR’s operations and research directions, including grouping research priorities by country and key program areas.

A focus of the AOP was the development of more targeted programs in each country. To measure ACIAR’s progress in each country key performance indicators were listed that reflected both the drive to refine and target programs more strongly, and to deliver research applicable to partner country needs. These are reported against in the Regional achievements chapter, within the report for each country. AOP indicators for other core areas of operation, such as the Multilateral program, Communicating research, Measuring research impacts and Building research capacity, are included in the relevant chapters of the Year in Review section. Of the 77 indicators, 69 were achieved, 4 were not achieved, and a further 4 were not achieved due to political or security reasons outside ACIAR’s control.

### Portfolio management\*

<b>AOP budgeted expenditure in 2003–04</b>	\$3,650,000
<b>Actual expenditure in 2003–04</b>	\$3,246,618
<b>Proportion of total ACIAR expenditure 2003–04</b>	6%

\* includes Executive and Advisory (Executive Planning and Board/Policy Advisory Council/Policy Secretariat), Information Services, Information Technology and Infrastructure, Finance, Human Resources and International Support

Key performance indicators	Performance 2003–04
<ul style="list-style-type: none"> <li>Running costs do not increase in real terms.</li> </ul>	In real terms running costs were static, with an increase of two per cent equalling inflation.
<ul style="list-style-type: none"> <li>All legislative and reporting requirements are met with no significant operational problems.</li> </ul>	All legislative requirements, including the Annual Report 2002–03, the Portfolio Budget Statement, and other reporting requirements were met.
<ul style="list-style-type: none"> <li>Extent to which information is being made more accessible and our operations are being kept as simple as possible.</li> </ul>	Web access and project information system changes have made information more accessible, especially to country offices. Support operations were carried out by fewer people more efficiently.

ACIAR’s project partnerships are international, collaborative and inter-governmental. Portfolio management covers effective project implementation and delivery of results in a complex operating environment through a sound administrative underpinning and an investment in information services. It also requires an investment in overseas offices that is sufficient to facilitate a collaborative approach, in which partner country priorities are heard and addressed.

## Tracking performance: against Australia's National Research Priorities

Key performance indicators	Performance 2003–04
1. Increased share of resources devoted to priority themes 1 and 4	Funding of research projects relevant to priority themes 1 and 4 increased from 37% of bilateral research funding in 2002–03, to 51% in 2003–04
2. Increased evidence of co-funding of projects in national research priority areas	Co-funding by collaborators in projects in priority themes 1 and 4 increased from \$7.56m in 2002–03 to \$7.70m in 2003–04

ACIAR's research funding priorities are driven primarily by Australia's aid agenda, and are substantially influenced by the agricultural development priorities of our regional partner countries. Priorities are established through regular consultations that seek to match partner country needs with areas in which Australia has a comparative advantage in research expertise.

ACIAR's partnership mode, in which Australian researchers collaborate with partner country scientists on problems of mutual interest, ensures that Australia also benefits from many of the projects we facilitate and fund. Many of the issues that Australia faces in working towards environmentally sustainable agriculture and natural resource management are shared with developing countries, who face similar challenges from variable climatic conditions, degraded and eroded soils, poor soil fertility, uncertain water supplies, unsustainable farming practices, and exotic weeds, pests and diseases. ACIAR's mission is to achieve more productive and sustainable agricultural systems, for the benefit of developing countries and Australia. Therefore, there is a strong alignment between ACIAR's priorities within the context of Australia's international development cooperation program, and Australia's national research priorities under themes 1 and 4.

In formulating its implementation plan for addressing the national research priorities, ACIAR documented Australian-focused objectives of active projects that fall under these themes, and reported its total budgeted investment in these and other projects that involve Australian scientists with expertise in national research priority areas. As these areas of comparative advantage are strengthened by and become more aligned with Australian national research priorities, they are more likely to be selected as the areas in which Australia can best apply its expertise for the benefit of developing countries. For example, there has been a shift in the emphasis of the partnership in China and India away from increasing agricultural production *per se* to one of sustaining agricultural production. Therefore, Australian skills in the first priority theme of environmental sustainability are expected to be more frequently involved in ACIAR-funded research directed towards these countries.

ACIAR's implementation plan was amended in May 2004 to incorporate the new subtheme 1.7 *Responding to climate change and biodiversity*, and to add new projects and remove completed projects from the table of priority-relevant projects.



## Performance indicator 1: ACIAR investments in National Research Priorities (themes 1 and 4) 2002–03 to 2004–05

	2002–03 actual (\$m)	2003–04 actual (\$m)	2004–05 planned (\$m)
<b>1. An environmentally sustainable Australia</b>			
1.1 Water – a critical resource	2.62	2.54	3.28
1.3 Overcoming soil loss, salinity and acidity	1.35	2.04	2.24
1.4 Reducing and capturing emissions	0.09	0.27	0.18
1.5 Sustainable use of Australia’s biodiversity	1.89	2.31	2.03
1.7 Responding to climate change and biodiversity*		0.04	0.18
<b>Total Theme 1</b>	<b>5.94</b>	<b>7.20</b>	<b>7.83</b>
<b>4. Safeguarding Australia</b>			
4.2 Protecting Australia from invasive diseases and pests	3.78	5.86	6.78
<b>Total Theme 4</b>	<b>3.78</b>	<b>5.86</b>	<b>6.78</b>
<b>TOTAL THEMES 1 AND 4</b>	<b>9.72</b>	<b>13.06</b>	<b>14.69</b>
<b>TOTAL as percentage of total ACIAR bilateral project funding</b>	<b>37%</b>	<b>51%</b>	<b>52%</b>

\*New priority area added by the Government during 2003–04

## Performance indicator 2: Co-funding by collaborating organisations in projects relevant to the National Research Priorities (themes 1 and 4)

	2002–03 actual (\$m)	2003–04 actual (\$m)
<b>1. An environmentally sustainable Australia</b>		
1.1 Water – a critical resource	2.33	2.38
1.3 Overcoming soil loss, salinity and acidity	1.69	1.75
1.4 Reducing and capturing emissions	0.14	0.49
1.5 Sustainable use of Australia’s biodiversity	1.94	1.72
<b>Total Theme 1</b>	<b>6.11</b>	<b>6.34</b>
<b>4. Safeguarding Australia</b>		
4.2 Protecting Australia from invasive diseases and pests	1.45	1.36
<b>Total Theme 4</b>	<b>1.45</b>	<b>1.36</b>
<b>TOTAL THEMES 1 AND 4</b>	<b>7.56</b>	<b>7.70</b>

The above table shows a slight increase in co-funding of projects in national research priority areas in the reporting period. ACIAR’s partnership mode of operation emphasises in-kind and funded contributions by research collaborators. In addition, projects may be designed to align closely with, for example, research being undertaken by Cooperative Research Centres, or funded by Rural Industries Research Corporations.

The following table demonstrates the range of outputs from ACIAR-funded research in national research priority areas that are of direct benefit to Australia. In 2003–04, 38 of a total of 192 active bilateral projects were delivering benefits to Australia in national priority areas.

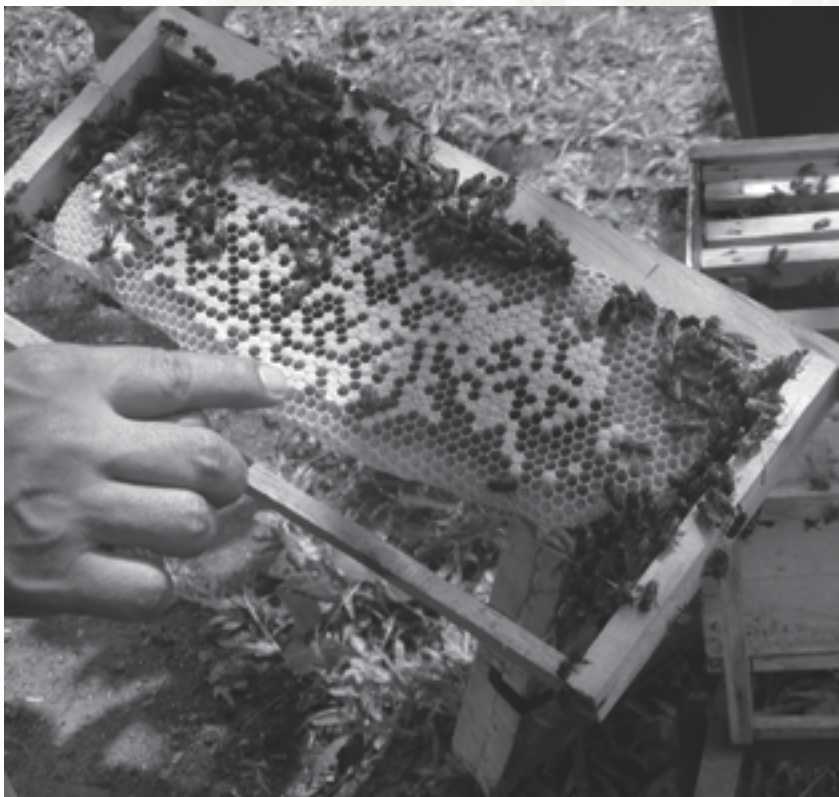
# Projects in 2003–04 with Australian benefits directly relevant to Australia's National Research Priorities

## Theme 1: an environmentally sustainable Australia

Priority goals	ACIAR projects	Key Australian project outputs
<b>1.1 Water – a critical resource</b>	ADP/2001/014	In Australia, an analysis has been carried out of the robustness of new approaches to determine effective institutional arrangements for water management
	ASEM/2001/095	An integrated water resources assessment framework for analysing water allocation rules has been constructed and is able to be adapted to suit individual catchments
	CIM/1997/114	High-yielding peanut varieties have been identified for use in drought-prone Australian environments
	FST/1997/077	Predictive tools for water yields from plantation catchments in Victoria have been developed
	FST/1999/035	Catchment modelling techniques have been adapted for use in land-use planning in tropical Australia
	LWR/2000/084	A risk assessment of the environmental aspects of agricultural pesticides has being made for the 6th Creek, Mount Lofty region of Adelaide Hills
	LWR/2000/030	An analysis of the impact of water-saving irrigation practices at large scales has been made in the Murray–Darling Basin
	LWR/2002/018	Tools to optimise revegetation for salinity abatement in the Middle and Upper Murrumbidgee Catchment are being developed
	LWR/2003/006	New approaches to manage artificially-recharged aquifers under development in Australia
	SMCN/2000/089	Permanent crop bed technology trialled in Australia to increase water use efficiency in irrigated cropping while reducing energy inputs
SMCN/2002/093	Increases in overall water use efficiency of cereal crops grown in South Australia through double-cropping studies	
<b>1.3 Overcoming soil loss, salinity and acidity</b>	ASEM/1998/052	Application of the 'Landcare' approach to subtropical horticulture industries formalised in community groups in southeast Queensland
	ASEM/2000/109	Reduction of soil losses in cereal cropping in northern NSW through introduction of conservation tillage practices
	AS1/2001/005	Prevention of environmental contamination from tanneries in Australia by improved recycling of agents used in tanning
	LWR/1997/150	A combined economic and hydrological model of salinisation has been further developed for a catchment in the Upper Macquarie Valley, NSW
	LWR/1998/130	Vulnerability to salinisation under different management practices can be mapped
	LWR/1998/124	Options for farmers to minimise soil degradation by acidification and nutrient loss in legume-based pastures in northern Australia established
	LWR/2002/085	Fertility capability classification initiated to improve soil and fertiliser management in the Herbert River catchment of Queensland
	SMCN/1999/094	Facilitation of adoption of reduced tillage systems in broadacre cropping
<b>1.4 Reducing and capturing emissions in transport and energy generation</b>	ASEM/2002/066	Bioeconomic models to analyse the performance and transaction costs associated with different land use changes in forestry systems in eastern Australia designed to capture carbon credits
	ASEM/2000/088	A forestry development plan completed for the Atherton Tablelands
<b>1.5 Sustainable use of Australia's biodiversity</b>	CIM/2000/002	New techniques developed for conservation and regeneration of Australian native tropical fruit germplasm
	FIS/2002/083	New tools to establish genetic diversity of native freshwater crustaceans
	FIS/2003/037	Assessment of the diversity of Australian shark and ray fishery stocks in northwest waters
	FST/1996/124	Hybrid eucalypts identified for potential use in revegetating degraded sites in inland Australia
	FST/2000/003	Mixed species plantations identified for trial, in order to provide more diverse environmental services
	FST/1998/096	Domestication of Australian trees is introducing new native tree species into commercial use
	FST/1996/005	Domestication of Australian Meliaceae species to use these highly valuable native timber species
	FST/1994/019	Better genetic differentiation of mangrove species for coastal rehabilitation projects in Queensland

## Theme 4: Safeguarding Australia

Priority goals	ACIAR Projects	Key project outputs
<b>4.2 Protecting Australia from invasive diseases and pests</b>	AS1/2002/108	Mouse model developed to predict mouse plagues in southern Australia
	AS1/2000/009	Diagnostic test assessed for the identification of the exotic disease <i>Trypanosomes evansi</i> in livestock
	AS1/2003/001	Improved diagnostic tools for exotic livestock diseases (classical swine fever and foot and mouth disease)
	AS2/1999/063	Improved vaccines against tick-borne diseases used to assess live cattle exports from Australia
	AS2/1999/060	Diagnostic tests applied for dockside detection of parasitic mites of honey bees
	CP/2002/013	Understanding of the life cycle of red-banded mango caterpillar, an exotic pest of mangoes recently discovered in mainland Australia
	CP/2000/090	Integrated pest management strategies developed for a major Asian leaf miner pest of vegetables
	CP/1996/091	Improved biological control of Siam weed in PNG, reducing the threat of its invasion of Australia



Control of parasitic mites of honey bees