

Tracking performance

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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

Aid White Paper—ACIAR’s annual performance

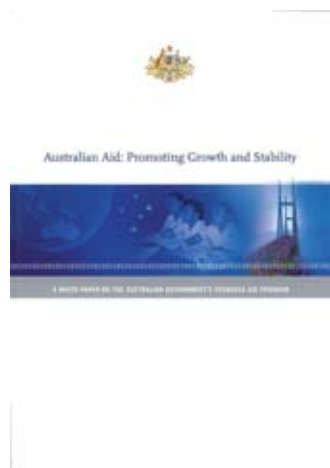
Background

In April 2006 the White Paper on the Australian Government’s Aid Program: *Promoting Growth and Stability* was released. The paper sets out a plan for Australia’s overseas aid program over the next ten years. The program will be focused on the fundamental and interrelated pillars of economic growth, sound governance and stability.

As an integral part of the aid program, ACIAR has identified and responded to the White Paper provisions of relevance to ACIAR’s strategic directions and program operations.

The White Paper is organised around four themes:

- Accelerating economic growth
- Fostering functioning and effective states
- Investing in people
- Promoting regional stability and cooperation



In monitoring ACIAR’s contributions to these themes, we have disaggregated the strategic themes into component initiatives, to demonstrate actions that ACIAR is undertaking to implement White Paper directions.

Under the four themes, ACIAR’s role is primarily geared towards theme 1 (economic growth), and theme 3 (investing in people). Fostering rural development and agricultural productivity is a driver to increase incomes, stimulate development of the non-farm economy and generate employment opportunities in rural areas. Similarly both formal education and informal capacity building is central to investment in human capital as a cornerstone of development. Agricultural research and development is a direct contributor in both instances. Addressing environmental challenges to enable growth to be sustained also critically underpins ACIAR’s programs. Other White Paper issues which are addressed include performance effectiveness and evaluations; gender equality; the use of untied aid; use of commercial partnerships; promoting trade; and enhancing the policy environment.

Apart from specific funding targets and directions nominated in the ACIAR prioritisation processes, impact assessment and evaluation studies are instrumental in the measurement and communication of ACIAR performance, including against White Paper objectives. Working linkages have been established with the Office of Development Effectiveness to ensure full involvement of the agricultural research and development outlays in addressing wider aid program directions. The following table summarises some ACIAR achievements in 2006–07 relevant to the White Paper themes.

Theme: Accelerating Economic Growth

Subject / Initiative	Relevance to ACIAR	Performance indicators (or measurement)	Achievements 2006-07
1. Promoting Trade	Research on trade analysis, trade policy and trade facilitation, including quarantine controls and surveillance are an increasing priority for ACIAR partnerships.	<ul style="list-style-type: none"> Investment in jointly agreed projects. Adoption of results by policy makers, relevant agencies and agribusiness. 	<ul style="list-style-type: none"> A focus on pest and disease monitoring and management was progressed through 49 active projects during 2006-07. Five trade policy research projects managed during the year in partnership with Asia-Pacific government and research agencies closely linked to decision makers.
2. Drivers of Growth (sustaining growth)	Agriculture, Fisheries and Forestry sectors significant sources of economic growth and employment. Productivity enhancement through R&D and knowledge transfer.	<ul style="list-style-type: none"> Evidence of productivity enhancing research outcomes from R&D projects. Identification of performance incentives for agricultural producers, including land tenure issues. 	<ul style="list-style-type: none"> Six independent, external impact assessments of 11 projects completed which are expected to generate net benefits of \$483 million in present value terms with benefit cost ratios up to 100:1, and internal rates of return of 25-30% Government of Pakistan launched a 5-year, \$11 million "National Permanent Raised Beds" program in July 2006, aimed at establishing 1000 farmer cluster groups and providing them with machinery to implement technology developed by ACIAR that showing that Permanent Raised Beds can raise productivity of maize and wheat by 10-30%. Widespread adoption of new fruit fly management technology by stone fruit growers in northern Vietnam and tropical fruit grower in southern Vietnam. Widespread adoption of a improved, more profitable new tomato variety in Cambodia from ACIAR research.

Subject / Initiative	Relevance to ACIAR	Performance indicators (or measurement)	Achievements 2006-07
3. Rural and Business Development	Through chain and value-added processes, with closer market linkages for smallholders increasingly included in ACIAR portfolio as essential components of competitiveness.	<ul style="list-style-type: none"> Expenditure on off-farm marketing and value-adding opportunities for smallholders triggered by adoption of the results of ACIAR-funded R&D projects. Demonstrated uptake levels. 	<ul style="list-style-type: none"> Through chain evaluating opportunities have been assessed in several countries and industries, with more than nine assessments occurring in Indonesia. These assessments have identified strategies and projects that will deliver closer market linkages for the small holder, primarily to improve industry competitiveness. Initiatives on value addition to timber products commenced or underway in PNG, Vanuatu, Vietnam, and China. Improved trade in mangoes has been generated in the Philippines, Thailand and Australia from adoption of heat treatment systems to achieve quarantine requirements in Japan and other countries. Over \$20 million of net welfare gains have been achieved (IAS Report No 50). Low-cost "de-sapping" system has been developed for mangoes exported from Pakistan and rapidly adopted by exporters. This is resulting in treated fruit achieving a 50 cent per kg premium.
4. Emergency Management	Disaster relief generally requires research into agricultural restoration options and pathways. Flexible/quick response needed.	<ul style="list-style-type: none"> Flexible and quick response on timely basis where agricultural and fisheries technical inputs identified as important. Working partnerships with Australian agencies and international donors developed in a timely fashion. 	<ul style="list-style-type: none"> Information from fisheries and soil management projects developed in response to the December 2004 tsunami disaster utilised by other users, including Indonesian government, NGOs and donors such as USAID, JICA and FAO. Program of agricultural and fisheries rehabilitation implemented in post-conflict Solomon Islands. Close partnerships with AusAID, FAO and national governments established to deliver results.

Subject / Initiative	Relevance to ACIAR	Performance indicators (or measurement)	Achievements 2006-07
5. Regional Integration	Projects in selected areas such as management of transboundary plant and animal diseases where a regional approach is necessary and desirable.	<ul style="list-style-type: none"> Appropriate use of regional mechanisms in selected areas such as management of transboundary diseases and trade policy and market access measures where warranted. 	<ul style="list-style-type: none"> Regional research cooperation with Indonesia on management of transboundary fish stocks progressed through two projects on sharks/ rays and deep swimming tunas. ACIAR and other donors supporting a major regional tuna tagging project examining the impact and reported high harvest rates of juvenile fish in PNG on wider regional stocks. Regional approach and consortia on trans-boundary management of livestock diseases established in Mekong region. Regional initiative underway on the management of yellow rust in wheat.
6. Country Strategies	ACIAR programs and priorities designed in consultation with partners to establish mutual priorities, in the context of a broader single whole-of-government development assistance program for each country.	<ul style="list-style-type: none"> Demonstrated compatibility of ACIAR country strategies with whole-of-government country development and AusAID rural development strategies. 	<ul style="list-style-type: none"> ACIAR country strategies coordinated and cleared with DFAT and AusAID for incorporation in 2007–08 Annual Operational Plan. ACIAR involvement in development of new Australian aid program strategies for the Philippines, Mekong region, Vietnam, Indonesia and East Timor. Contribution by ACIAR to AusAID development research strategy and aid program environment strategies.
7. Working with Partners	Close interaction with partner countries and stakeholders is essential for effective research application and implementation across ACIAR.	<ul style="list-style-type: none"> Overseas stakeholder survey completed in 2006-07 together with an Action Plan developed to further improve partnerships in Asia-Pacific region in response to survey results. 	<ul style="list-style-type: none"> Overseas stakeholder survey completed and report provided to ACIAR Board of Management. Survey positive on ACIAR's role in fostering partnerships for research for development and in developing human capital. Management response plan drafted for consideration by new ACIAR Commission, proposing initiatives designed to further improve partnerships.

Subject / Initiative	Relevance to ACIAR	Performance indicators (or measurement)	Achievements 2006-07
8. Greater private sector participation in ACIAR research	Private sector partnerships to achieve research results as well as effective dissemination and adoption are selectively undertaken.	<ul style="list-style-type: none"> Private sector partnership strategy developed by management and staff and endorsed by Board of Management New private sector initiatives developed in keeping with aid program strategy and policy. 	<ul style="list-style-type: none"> Private sector discussion paper drafted for later consideration as a strategy paper once the new Commission is established. Significant involvement of private sector in ACIARs program, including in over 20 projects in 12 countries. Using PNG projects as an example, private sector partners range from industry associations in PNG (such as the Oil Palm Research Association) and Australia (Plywood Association of Australia), to individual PNG-based companies (such as Trukai Farms and Ramu Sugar), and Australian companies (e.g. Botanical Resources Australia).
9. Environmental sustainability	Better environments from better (and sustainable) agriculture is a key thematic area for ACIAR. Improved technologies, practices, policies and systems can make a strong environmentally beneficial contribution.	<ul style="list-style-type: none"> Funding levels for research on environmental impacts of agriculture, land use and institutional capabilities. 	<ul style="list-style-type: none"> Aggregate funding on projects addressing soil loss, salinity and acidity increased by 12% over previous year. Eighty four projects related directly or indirectly to environmental sustainability in partner countries and Australia being managed in 2006–07. During 2006–07, 20 new projects were initiated on topics directly related to environmental sustainability. Completed design and initiated the implementation of a \$6 million integrated cluster of projects targeting increased water productivity in India ranging from farm level interventions to policy and institutional advice.

Theme: Investing in People

Subject / Initiative	Relevance to ACIAR	Performance indicators (or measurement)	Achievements 2006-07
1. Gender equality	In many partner countries women (and children) make an essential contribution to agricultural production and marketing, and financial management of smallholder enterprises. Female role in identifying priorities and ensuring research and adoption approaches in projects are identified.	<ul style="list-style-type: none"> Where feasible the number of women participants in ACIAR programs will be numerated. Female participation in ACIAR training, education and extension activities will be recorded and assessed for reporting purposes. 	<ul style="list-style-type: none"> International training course completed for selected ACIAR R&D/extension providers on 'gender mainstreaming'. Seven ACIAR John Dillon Fellowships awarded to developing country research managers, including two women. Fifty two John Allwright Postgraduate Fellowships commenced, with 16 female awardees. Several new and existing projects specifically focus on improving gender equality in farming, including research on more equitable distribution of income from oil palm and cocoa production (PNG); improvements to farming practices for women rice farmers (Philippines, Vietnam and Thailand); establishment of extension practices informing and involving women in arid watersheds (India); enhancing market returns to women producers of indigenous vegetables (Vietnam); whole of family (i.e. explicitly inclusive of women) approaches to improving productivity of cropping systems (Bangladesh).
2. Education access and scholarships	Building capacity of agricultural research institutes in partner countries is a key ACIAR priority. ACIAR also offers several specialised training activities, e.g. John Allwright Fellowships; John Dillon Fellowships and short term training courses.	<ul style="list-style-type: none"> Continued high quality of applications for research management training in Australia with at least five management fellowships awarded each year. Size of (John Allwright) postgraduate program increased by at least 25%. 	<ul style="list-style-type: none"> In 2006-07 ACIAR training program expenditure increased to over \$4 million compared to \$2.9 million in 2005-06. Expenditure on the John Allwright Postgraduate Fellowship program was \$2.6 million with 96 active fellowships during the year compared with \$1.5 million and 57 active fellowships in 2005-06.

Subject / Initiative	Relevance to ACIAR	Performance indicators (or measurement)	Achievements 2006-07
3. Informal capacity building	A wide range of ACIAR projects incorporate informal or on the job capacity enhancement elements. This is necessary to receive good adoption levels. The 'participatory research and extension' system approach is used by ACIAR.	<ul style="list-style-type: none"> Inclusion of capacity building provisions in all relevant projects. Examine improved measurement and evaluation of capacity building impacts. Investment in suitable extension research and adoption projects. 	<ul style="list-style-type: none"> All new ACIAR research projects assessed during the In House Review process for capacity building potential in conjunction with other impacts. Study on approaches to improve the efficiency of technology assessment and extension in eastern Indonesia completed. A specific extension needs research project covering a number of Pacific Island countries progressed during the year. The benefits from capacity building were estimated for sorghum breeding research in India and shown to have very high returns of \$161 million. (see IAS Report No 48).
4. Delivering better human health (especially women and children)	ACIAR's project portfolio includes food and nutritional security objectives including development of improved crop and animal products. Zoonotic disease management also are an important feature in the research agenda.	<ul style="list-style-type: none"> Closer targeting of crop/animal quality improvement with breeding and distribution achievements to raise nutritional levels (and therefore health). Adoption of zoonotic disease remedies at farm and policy levels. Reduced disease control costs. 	<ul style="list-style-type: none"> ACIAR animal health (including zoonotic diseases and infections) program externally appraised and forward action plan approved to cover increased emphasis on zoonotic disease management and transboundary disease control including institutional, regulatory and policy interventions Major report on food safety issues and constraints in Indonesia completed. ACIAR-supported project on screening and field trials of high-carotenoid sweet potatoes in Solomon Islands and PNG to improve human vitamin A status identified some high vitamin A varieties. Vegetable production projects in Indonesia, PNG and the Solomon Islands have identified pesticide use and management issues and has developed and disseminated information on pesticide use and safer chemicals.

Subject / Initiative	Relevance to ACIAR	Performance indicators (or measurement)	Achievements 2006-07
5. Strengthening cooperation on transboundary threats	Collaborative research on agricultural pests and transboundary diseases can help address these increasingly significant challenges for Australia and its regional counterparts.	<ul style="list-style-type: none"> Funding of projects relevant to transboundary disease monitoring, surveillance and control mechanisms and associated development of cooperation in quarantine and biosecurity capacity. 	<ul style="list-style-type: none"> MOU signed with Thai Agriculture Research and Development Agency to improve cooperation in neighbouring Mekong region countries. Five new projects commenced that address scientific and institutional requirements relevant to invasive pests and diseases. Examples of other pest and disease related R&D projects being progressed include work on sugar cane diseases (PNG); rice fungal diseases (Cambodia), mango pests and diseases (Philippines), vegetable pests and diseases (Pacific Islands), chilli diseases (Indonesia), cocoa pests and diseases (PNG), banana wilt diseases (Indonesia and PNG), taro pests and diseases (Pacific Islands), fruit flies (PNG, Vietnam and Indonesia), potato late blight (PNG), citrus greening disease (Vietnam, Indonesia). The impact of bee mite research on quarantine and biosecurity in Australia and partner countries was estimated and shown to have benefits of \$68 million. (IAS Report No 46).
6. Lessons learned/ evaluation	ACIAR already has a significant investment in impact evaluation. Demonstrating the impact and effectiveness of development assistance is a challenge for most aid donors.	<ul style="list-style-type: none"> Review the methodologies used by ACIAR evaluations. Develop linkages with the new Office of Development Effectiveness. Greater involvement of partner country and CGIAR centre agriculturalists and economists in impact evaluation activities. 	<ul style="list-style-type: none"> Discussions held with Office of Development Effectiveness and individual AusAID country programs to address mutual evaluation methods and reporting. ACIAR Policy Linkages and Impact Assessment program has established working partnership with groups in the Philippines and Vietnam. A new working draft 'ACIAR Impact Assessment: Guidelines for practitioners' was produced and will be used in all 2007-08 assessments. Adoption studies undertaken for seven projects completed in 2002-03. Report published.

Subject / Initiative	Relevance to ACIAR	Performance indicators (or measurement)	Achievements 2006-07
7. Untied aid policies	While ACIAR works in collaboration with other non-Australian recipient and donor country organisations, only limited project funding is provided to other countries.	<ul style="list-style-type: none"> • Evidence that relevant third country researchers and consultants accessed to develop an expanded pool of expertise. • This will commence in the Pacific area, including New Zealand, with initial attention to project review activities in ACIAR. 	<ul style="list-style-type: none"> • World-wide recruitment processes completed for senior in-country positions in Indonesian program. Local scientists and consultants have been employed as the in-country project managers for two major projects in the Solomon Islands. • Over twenty major ACIAR research projects commissioned to (led by) non-Australian organisations. • Consultants database for project reviewers and consultants contains entries from over 15 countries. • Trainers from Philippines, Thailand and Africa used to deliver short-course training to ACIAR project staff. • External reviewers for end of project reviews in several programs sourced internationally.

Tracking performance against the 2006–07 Portfolio Budget Statement

Output	Indicator	Performance 2006–07
	<i>Quality</i>	
1.1 Collaborative research that addresses agricultural and natural resource management problems of developing countries and Australia	Regional investment profile is consistent with Australian Government aid priorities.	<p>Expenditure for research and development projects in the South-East Asia region (particularly Indonesia, Vietnam, Philippines and Cambodia) was increased by \$1.6 million in 2006–07 to support continued expansion of programs in these countries.</p> <p>Programs on horticulture and linkage of policy to biophysical research were initiated.</p> <p>There was a continued reduction in bilateral expenditure in China and India, with a corresponding increase in co-funding arrangements by partner organisations in both countries.</p> <p>ACIAR continued its involvement in the Australia–Indonesia Partnership for Reconstruction and Development; in particular, designing and delivering components of the Smallholder Agribusiness Development Initiative and Aceh Aquaculture Rehabilitation Scheme.</p> <p>ACIAR implemented, with AusAID funding, a large multi-year project (Seeds of Life 2) in East Timor to deliver improved varieties of staple food crops.</p> <p>ACIAR managed two of the four components of the Australia–Pakistan Agriculture Linkages Program.</p>
	Research partners contribute 40–55% of project costs. More than 90% of concluding projects are assessed by external reviews as having achieved their main objectives.	<p>Project partners contributed 39.8% of project cost *</p> <p>In 2006–07, 30 external project reviews were conducted with the recommendations considered by ACIAR Management and Board of Management.</p> <p>Ninety-three percent achieved their main objectives with 12 of these achieving all their objectives.</p> <p><i>* Note: Leverage statistics include all new projects entered into in 2006–07, including small R&D activities totalling \$4.3 million which are solely funded by ACIAR.</i></p>
	There is further substantiated evidence of significant economic, social and environmental impacts from completed ACIAR projects.	<p>Seven impact assessments were published in 2006–07 with a total expected return on investment of \$483.4 million (Net Present Value).</p> <p>A study of adoption undertaken from seven projects completed in 2002–03 revealed significant uptake of new technologies in all seven of those projects, with new technologies adopted from five of the projects and policy models or support tools adopted from two of these projects.</p>

Output	Indicator	Performance 2006–07
	Quality	
	Support for multilateral research providers is concentrated on those International Agricultural Research Centres with greatest comparative advantage.	Twenty percent of ACIAR's total appropriation in 2006–07 was allocated to the IARCs. Of this total IARC investment, 54.6% was allocated as unrestricted funding to centres with a comparative advantage in the Asia–Pacific region while another 44.4% was allocated to specific projects within the region. The remaining 1% was allocated to other multilateral activities. These percentages are consistent with the 3-year IARC funding strategy announced at the beginning of 2005–06.
	Quantity:	
	Around 200 projects are delivering outputs during 2006–07.	ACIAR had 321 active projects during 2006–07*: 291 bilateral and 30 multilateral projects. <i>*Note: In 2005–06 ACIAR introduced a new project category of Small Research Activities, aimed at utilising scoping studies to rapidly but more completely identify key researchable issues ahead of implementation of major projects.</i>
	More than 10,000 copies of ACIAR research publications and papers are requested or downloaded.	ACIAR distributed 13,747 hard copies of publications and, each month, the ACIAR publication lists featured in the top ten most visited pages on the ACIAR website, with an average each month of 25% of visitors downloading publications.
1.2 Trained researchers in developing countries and Australia	Quality:	
	More than 90% of trainees will indicate satisfaction with training.	Ninety-three percent of training course participants rated the courses as satisfactory or greater, with over 81.5% rating them highly satisfactory (or very good).
	Quantity:	
	More than 100 trainees are in formal, ACIAR-supported training courses.	ACIAR held 12 cross-program training courses in six countries along with four Crawford Fund Master Classes in three countries. ACIAR had 96 active John Allwright Fellows undertaking postgraduate study in Australia representing 18 countries. Seven John Dillon Fellowships were awarded for research management training.

Tracking performance against the 2006–07 Annual Operational Plan

ACIAR's 2006–07 research priorities were set out in its Annual Operational Plan (AOP). The AOP provides a transparent window into ACIAR's operations and research directions within the context and strategies of the White Paper *Australian Aid: Promoting Growth and Stability* and the Portfolio Budget Statement.

Key performance indicators in each country

ACIAR measures its progress in each country through key performance indicators (KPIs). These assist in the development of more focused programs in each country and also

reflect the drive to refine and target programs more strongly to deliver research applicable to partner-country needs. Progress against country-specific KPIs is listed in the Regional achievements section, at the beginning of each country report.

Key performance indicators other core areas of operation

AOP KPIs are included for the multilateral, communicating research results, measuring research impacts and building research capacity programs within the relevant chapters in the Year in Review section.

Key performance indicators portfolio management

Key performance indicators	Performance 2006–07
<ul style="list-style-type: none"> Running costs do not increase in real terms. 	<ul style="list-style-type: none"> Running costs increased in real terms by 2%. During 2006–07 total running costs were \$9.5 million compared to our annual budget of \$9.3 million.
<ul style="list-style-type: none"> All legislative and reporting requirements and requests for policy advice and information are met in an efficient and timely manner. 	<ul style="list-style-type: none"> ACIAR's Annual Report was tabled on 30 October 2006. ACIAR contributions/reports on National Research Priorities, Portfolio Budget Statements, Privacy Commissioner and other government agencies were all provided on time.
<ul style="list-style-type: none"> Our operations are (more) streamlined, flexible and efficient. 	<ul style="list-style-type: none"> There was greater flexibility in In-House Review and project approval procedures through greater use of small groups and delegation of more approvals. New 'Small R&D Activity' modality was used to enable a rapid response to requests from partner countries or to scope out emerging issues. Processes were introduced to improve communication and joint planning between country offices and research programs.
<ul style="list-style-type: none"> A new records-management system is implemented. 	<ul style="list-style-type: none"> ACIAR has successfully implemented a new records management system: Meridio. Extensive training in the use of the system, together with defining records, has been undertaken.
<ul style="list-style-type: none"> Our corporate knowledge and information is readily accessible to all staff. 	<ul style="list-style-type: none"> ACIAR's Project Information System was enhanced and upgraded. ACIAR's Portal is now the main information source for a range of corporate documents, including the policies, key reporting and planning documentation, forms and information sheets.

Portfolio Management*

AOP budgeted expenditure in 2006–07	\$3,521,136
Actual expenditure in 2006–07	\$3,451,000
Proportion of total ACIAR expenditure 2006–07	5.9%

* Includes Executive Planning, Board of Management, Policy Advisory Council, Policy Secretariat, Information Management and Services, Information Technology, Infrastructure, Finance, Human Resources and International Support

Tracking against Australia's National Research Priorities

Key performance Indicators	Performance 2006–07
Increased share of resources devoted to Priority Themes 1 and 4.	Funding of research projects relevant to Priority Themes 1 and 4 were increased in expenditure terms from \$20.28 million to \$20.31 million but declined from 58% of total projects funding in 2005–06 to a level of 53% in 2006–07.
Increased evidence of co-funding of projects in national research priority areas.	Co-funding by collaborators in projects in Priority Themes 1 and 4 was \$18.84 million in 2005–06 and \$17.22 million in 2006–07.

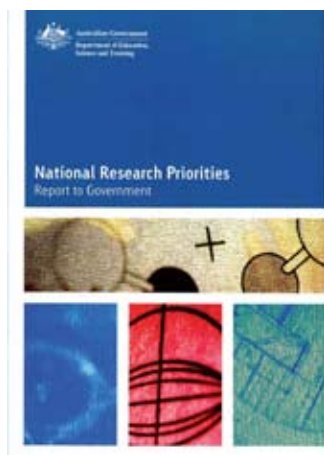
ACIAR's research funding priorities are driven strongly by Australia's overseas aid agenda and by country strategies that accommodate the development needs of partner countries in all regions. ACIAR also operates within the strategic aid framework recently confirmed by the White Paper on Australia's overseas aid program with a renewed emphasis on accelerating economic growth and investing in people.

The Centre has been increasingly successful over recent years in securing the mutual agreement of many of our key overseas research partners to the inclusion of NRP relevant priorities in the mutually agreed country strategies and research directions. This mutual agreement is necessary to secure adoption of research outputs in partner countries and simultaneous benefits for Australia, including in the context of NRPs. There has been a slight correction this year in the relative expenditure levels under NRP although actual expenditure has increased slightly.

This achievement is partially a reflection of the fact that many countries with which ACIAR engages in research partnerships experience similar environmental and biosecurity challenges as Australia. These can range from water and soil management issues to pest and disease incursions and controls. ACIAR has therefore focused heavily on Themes 1 (An Environmentally Sustainable Australia) and 4 (Safeguarding Australia) for the purposes

of current reporting.

Nevertheless, ACIAR does undertake an increasing number of activities which could be categorised under NRP Theme 2 (Promoting and Maintaining Good Health) and Theme 3 (Frontier Technologies for Building and Transforming Australian Industries). Greater attention was given to human health issues reflecting ACIAR's increasing focus on improved nutrition and research on zoonotic disease controls, both of which are directly and indirectly addressed in a range of ACIAR projects. Under Frontier Technologies, ACIAR focused more on support of lower risk, more mature science which is assessed as more likely to deliver benefits to developing countries, including economic, social and environmental impacts as well as capacity building in partner countries. Appropriate Technologies rather than only Frontier Technologies were considered. If all NRP Themes are considered together ACIAR's total relevant expenditure rose from \$23.34 million in 2005–06 to \$23.91 million in 2006–07. In overall terms ACIAR expenditures under



Theme 1—An Environmentally Sustainable Australia—changed from \$11.28 million in 2005–06 to \$10.76 million in 2006–07. For Theme 4—Safeguarding Australia—there was a slight increase from \$9 million to \$9.55 million over the same time period. Total outlays on NRP-relevant projects in 2006–07 were \$20.31 million, representing a small increase on the previous year. This follows several years of continuous increases in outlays on NRP relevant projects.

An Environmentally Sustainable Australia

In 2006–07 ACIAR’s research investment portfolio continued to provide for a strong emphasis on agriculture, fisheries and forestry research to achieve sustainable development and national resource management in developing countries. This is directly in line with both the NRPs and Australia’s overseas aid and development policies. Such projects

provide benefits to both the developing countries and, in many cases, to Australia. Australian environmental benefits range from water and soil degradation management to biodiversity and climate change responses.

Safeguarding Australia

The main emphasis under this theme focused on identification, surveillance and control of invasive pests and diseases which are increasingly both a bilateral and multilateral priority in the region. A number of developing countries in the Asia–Pacific region are giving greater recognition to the importance of food safety, animal and crop health and biosecurity measures as a means of realising their agricultural potential in domestic and export markets. These priorities concur with and contribute to Australia’s need to maintain and enhance its agricultural and food health and safety status.

Performance indicator 1: ACIAR investments in National Research Priorities (Themes 1 and 4)

	2005–06 actual (\$m)	2006–07 actual (\$m)
1. An environmentally sustainable Australia		
1.1 Water: a critical resource	3.60	3.14
1.2 Transforming existing industries	1.61	1.94
1.3 Overcoming soil loss, salinity and acidity	3.00	3.36
1.4 Reducing and capturing emissions	0.57	0.34
1.5 Sustainable use of Australia’s biodiversity	2.15	1.63
1.7 Responding to climate change and biodiversity	0.36	0.35
Total Theme 1	11.28	10.76
4. Safeguarding Australia		
4.1 Critical infrastructure	0.00	0.52
4.2 Understanding our region of the world	1.50	1.23
4.3 Protecting Australia from invasive diseases and pests	7.50	7.80
Total Theme 4	9.00	9.55
TOTALS 1 AND 4	20.28	20.31
TOTAL as percentage of total ACIAR research project funding	58%	53%

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

	2005-06 actual (\$m)	2006-07 actual (\$m)
1. An environmentally sustainable Australia		
1.1 Water: a critical resource	3.78	2.65
1.2 Transforming existing industries	0.94	1.10
1.3 Overcoming soil loss, salinity and acidity	2.05	4.08
1.4 Reducing and capturing emissions	1.05	0.88
1.5 Sustainable use of Australia's biodiversity	2.41	1.42
1.7 Responding to climate change and biodiversity	0.24	0.24
Total Theme 1	10.47	10.38
4. Safeguarding Australia		
4.1 Critical infrastructure	0.00	0.00
4.2 Understanding our region of the world	0.97	1.12
4.3 Protecting Australia from invasive diseases and pests	7.4	5.72
Total Theme 4	8.37	6.84
TOTALS 1 AND 4	18.84	17.22

The previous tables demonstrate a small increase in allocations in 2006–07 for projects within the NRP focus themes. The expenditure increase, however, is not reflected as an increase in the percentages of total research project funding. This is due primarily to an increase in special allocations to ACIAR to meet specific aid projects outside the NRP framework in terms of Themes 1 and 4. The cash and in-kind contributions by partners and collaborative organisations have declined slightly after increases in previous years. This is, however, expected to resume a growth path when new projects are initiated in the current financial year.

The Centre has continued to interact in the application of NRPs with a range of Australian research partners including cooperative research centres, rural research and development corporations, universities and state departments of agriculture.

Australian Research Benefits

An independent study based on assessments covering 35 projects since 1998 was published by ACIAR in September 2006. This review calculated the benefits to Australia (excluding benefits to recipient partner countries), which amounted to \$748 million from an investment of \$60 million on the abovementioned 35 projects in present value terms. It is estimated that 46% of the benefits were derived from direct production benefits a sizeable amount of which are relevant to NRP Theme 4. This measurement is not restricted to NRP-related projects, but does provide an indication of research returns to Australia which could be higher in the more recent NRP context, especially if other likely qualitative benefits are considered. Such benefits would include for example, Australian scientific capacity building, trade benefits related to science and access to international expertise and environmental gains relevant to Australian NRPs. A selected list of active projects in 2006–07 with Australian benefits directly relevant to Australia's National Research Priorities is provided below.

Projects in 2006–07 with Australian benefits directly relevant to Australia's National Research Priorities

Theme 1: an environmentally sustainable Australia

Priority Goals	ACIAR projects	Key Australian project title/outputs
1.1 Water: a critical resource	CIM/1996/025	Physiological and genetic approaches for the development of waterlogging tolerance in wheat on sodic/alkaline and neutral soils in India and Australia
	CIM/2003/030	Improving understanding and management of rice pathogens in Cambodia
	FIS/2002/001	Developing aquaculture in degraded land areas in India and Australia
	HORT/2003/045	Improvement of vegetable production and postharvest management systems in Cambodia and Australia
	LWR/2000/089	Permanent beds for irrigated rice–wheat and alternative cropping systems in north-west India and south-east Australia
	LWR/2001/014	Improving water resource management in India's agriculture: search for effective institutional arrangements and policy frameworks.
	LWR/2002/018	Regional impacts of re-vegetation on water resources of the Loess Plateau, China and the Middle and Upper Murrumbidgee Catchment, Australia
	LWR/2004/035	Technology for direct drilling into rice and other heavy stubbles in Pakistan and Australia
	PLIA/2005/152	Australia–China linkage for improved rice cold tolerance
	SMCN/2003/035	Improving the utilisation of water and soil resources for tree crop production in coastal areas of Vietnam and New South Wales
	SMCN/2004/069	Minimising agricultural pollution to enhance water quality in Laguna de Bay (Philippines) and Mt Lofty Ranges (Australia)
1.2 Transforming existing industries	HORT/2000/127	Improving and maintaining productivity of bamboo for quality timber and shoots in Australia and the Philippines
	HORT/2003/045	Improvement of vegetable production and postharvest management systems in Cambodia and Australia
1.3 Overcoming soil loss, salinity and acidity	AH/2001/005	Salinity reduction in tannery effluents in India and Australia
	ASEM/2000/109	Farming systems research for crop diversification in Cambodia and Australia
	ASEM/2002/051	Sustaining and growing landcare systems in the Philippines and Australia
	FST/2003/002	Development and evaluation of sterile triploids and polyploid breeding methodologies for commercial species of Acacia in Vietnam, South Africa and Australia
	HORT/2003/045	Improvement of vegetable production and postharvest management systems in Cambodia and Australia
	SMCN/2002/085	Utilising basic soil data for the sustainable management of upland soils in Vietnam and Australia
	SMCN/2004/069	Minimising agricultural pollution to enhance water quality in Laguna de Bay (Philippines) and Mt Lofty Ranges (Australia)

Priority Goals	ACIAR projects	Key Australian project title/outputs
1.4 Reducing and capturing emissions in transport and energy generation	LWR/2003/039	Improving the management of water and nitrogen fertiliser for agricultural profitability, water quality and reduced nitrous oxide emissions in China and Australia
	LWR/2004/035	Technology for direct drilling into rice and other heavy stubbles in Pakistan and Australia
1.5 Sustainable use of Australia's biodiversity	CP/2001/027	Adaptation of low-chill temperate fruits to Australia, Thailand, Lao PDR and Vietnam
	FIS/2001/058	Sustainable tropical spiny lobster aquaculture in Vietnam and Australia
	FIS/2002/074	Capacity development to monitor, analyse and report on Indonesian tuna fisheries
	FIS/2003/037	Artisanal shark and ray fisheries in eastern Indonesia and their relationships with Australian resources
	FIS/2004/065	Culture of promising indigenous fish species and bioremediation for barramundi aquaculture in northern Australia and PNG
	FST/2002/097	Identification of optimum genetic resources for establishment of local species of sandalwood for plantations and agroforests in Vanuatu and Cape York Peninsula
1.7 Responding to climate change and variability	ASEM/2003/009	Bridging the gap between seasonal climate forecasts and decision-makers in agriculture
	SMCN/2002-033	Seasonal climate forecasting for better irrigation systems management in Lombok

Theme 4: Safeguarding Australia

Priority Goals	ACIAR projects	Key Australian project title/outputs
4.2 Understanding our region and the world	ASEM/2003/015	Enhancing PNG smallholder cocoa production through greater adoption of disease control practices
	ASEM/2004/047	Sustainable management of coffee green scales in Papua New Guinea
	FIS/2004/065	Culture of promising indigenous fish species and bioremediation for barramundi aquaculture in northern Australia and PNG
	FST/2003/025	Community partnerships for plantation forestry; enhancing rural incomes from forestry in eastern Indonesia and Australia

Priority Goals	ACIAR projects	Key Australian project title/outputs
4.3 Protecting Australia from invasive diseases and pests	AH/2001/054	The identification of constraints and possible remedies to livestock production by zoonotic diseases in the South Pacific
	AH/2004/020	The development of a national surveillance system for classical swine fever, avian influenza and foot and mouth disease in Indonesia
	AH/2004/032	Identification of policy responses to minimise negative socioeconomic impacts of an avian influenza epidemic in Indonesia
	ASEM/2004/047	Sustainable management of coffee green scales in Papua New Guinea
	CIM/1999/072	Oilseed brassica improvement in China, India and Australia
	CIM/2000/038	Use and improvement of sugarcane germplasm
	CP/2000/043	Huanglongbing management for Indonesia, Vietnam and Australia
	CP/2003/029	Management of potato late blight in Papua New Guinea
	CP/2003/042	Fruit fly management in Papua New Guinea
	CP/2004/034	Diagnosis and management of wilt diseases of banana in Indonesia
	FST/2004/053	Establishing forest pest detection systems in South Pacific countries and Australia
	HORT/1998/140	Postharvest handling and disease control in melons in China and Australia
	HORT/2003/046	Integrated control of powdery mildew and other disease, weed and insect problems in squash in Tonga and Australia
	HORT/2003/071	Integrated pest management and supply chain improvement for mangoes in the Philippines and Australia
	HORT/2004/030	Control of Asian honeybees in Solomon Islands
	HORT/2004/049	Improved farming systems for managing soil-borne pathogens of ginger in Fiji and Australia
	HORT/2005/142	Improving mandarin production in Bhutan and Australia through the implementation of on-farm best management practices
	HORT/2005/153/1	Development of integrated crop management practices to increase sustainable yield and quality of mangoes in Pakistan and Australia
	LPS/1998/026	Lucerne adapted to adverse environments in China and Australia