



Australian Government

Australian Centre for  
International Agricultural Research



# ACIAR

ANNUAL REPORT 2012–13

## Copyright information

© Australian Centre for International Agricultural  
Research (ACIAR) 2013

This work is copyright. Apart from any use as permitted under the *Copyright Act 1968*, no part may be reproduced by any process without prior written permission from ACIAR, GPO Box 1571 Canberra ACT 2601, Australia, <aci-ar@aci-ar.gov.au>.

## Distribution

This report is available through the ACIAR website or by contacting ACIAR by email, telephone or fax to request a hard copy.

## Contact officer

Warren Page  
Manager, Communications and Public Affairs  
GPO Box 1571, Canberra ACT 2601, Australia  
Telephone: + 61 2 6217 0500  
Fax: + 61 2 6217 0501  
Email: aci-ar@aci-ar.gov.au  
Website: <aci-ar.gov.au>  
Annual Report website:  
<aci-ar.gov.au/publication/AR\_current>

## ACIAR Annual Report 2012–13

ISBN 978 1 922137 73 9 (print)  
ISBN 978 1 922137 74 6 (PDF)

Executive Editor: Warren Page  
Design: www.giraffe.com.au

Printing: CanPrint Communications

Cover photo: Elick Guaf, Senior Scientist and Agronomist at The National Agricultural Research Institute in Papua New Guinea with a sweetpotato seedling. Sweetpotato is one of the world's important food crops and an important staple food crop in Papua New Guinea. It is valuable in the diet of the people (over 6 million) with more than 60 percent producing the crop. An ACIAR project is describing and evaluating sweet potato seed supply systems, introducing improved varieties, and disseminating technologies for improved supply systems of sweet potato seed for small holders practising low-input agriculture. Photograph by Paul Jones.

## Printing statistics

1500 copies of this Annual Report have been printed and provided to key stakeholders.

# LETTER OF TRANSMITTAL FROM CHIEF EXECUTIVE OFFICER



**Australian Government**  
**Australian Centre for  
International Agricultural Research**

The Hon. Julie Bishop MP  
Minister for Foreign Affairs

October 2013

Dear Minister

## **ACIAR Annual Report 2012–13**

It is my pleasure as the Chief Executive Officer to present to you the Annual Report of the Australian Centre for International Agricultural Research for the year ended 30 June 2013.

The Report has been prepared in accordance with section 39 of our enabling legislation—*Australian Centre for International Agricultural Research Act 1982, as amended*.

Consistent with section 49 of the *Financial Management and Accountability Act 1997*, I have taken steps to ensure that the annual financial statements have been prepared in accordance with the Finance Minister's orders. The Report includes the Centre's audited financial statements, certified by the Australian National Audit Office, as required by section 57 of the *Financial Management and Accountability Act 1997*.

In presenting the Annual Report, I acknowledge the important contribution to international agricultural research made by ACIAR staff and commissioned research organisations, to help achieve more productive and sustainable agricultural systems for the benefit of developing countries and Australia.

Yours sincerely

A handwritten signature in black ink, appearing to read 'Nick Austin'.

Dr Nick Austin  
Chief Executive Officer



**ACIAR**

Research that works for developing  
countries and Australia

[aciarc.gov.au](http://aciarc.gov.au)



# CONTENTS

LETTER OF TRANSMITTAL FROM CHIEF EXECUTIVE OFFICER	i
CONTENTS	1
HIGHLIGHTS	3
About ACIAR	3
Comprehensive Aid Policy Framework	3
Purpose and strategic goals of the Australian aid program	4
Expenditure	5
Selected achievements	7
COMMISSION CHAIR’S AND CHIEF EXECUTIVE OFFICER’S REVIEW	9
THE YEAR IN REVIEW – REGIONAL AND PROGRAM ACHIEVEMENTS	15
Papua New Guinea and Pacific Island countries	16
Papua New Guinea	16
Pacific island countries	19
Indonesia, East Timor and the Philippines	22
Indonesia	22
East Timor	25
Philippines	25
Mekong countries and China	28
Vietnam	28
Lao People’s Democratic Republic (Laos)	31
Cambodia	32
Thailand	32
Myanmar	33
China	36
India	38
Bangladesh	41
Pakistan	43
Nepal	44
Afghanistan	44
Iraq	45
Bhutan	46
Africa	47

In the National Interest	49
Multilateral program	51
CGIAR and IARCs	51
Australian International Food Security Research Centre	52
Building research capacity	56
Communicating research results	57
Measuring research impacts	59
<b>CORPORATE GOVERNANCE</b>	<b>63</b>
ACIAR's governance framework	64
Chief Executive Officer	65
ACIAR Commission	65
Policy Advisory Council	69
Financial accountability and compliance	71
Chief Finance Officer's review	74
<b>FINANCIAL STATEMENTS</b>	<b>77</b>
<b>TRACKING PERFORMANCE</b>	<b>141</b>
Tracking performance against the 2012–13 Portfolio Budget Statement	142
Tracking performance against the 2012–13 Annual Operational Plan	147
<b>REPORTING AGAINST OTHER STATUTORY REQUIREMENTS</b>	<b>161</b>
Purchasing and tendering compliance	162
Management of human resources	163
Compliance with Freedom of Information / Information Publishing Scheme	165
Ecologically Sustainable Development and environmental performance	165
<b>APPENDIXES</b>	<b>169</b>
Appendix 1: Basis of authority	170
Appendix 2: Organisation structure	171
Appendix 3: Corporate planning and resources	172
Appendix 4: Active research projects 2012–13	173
Appendix 5: Publications 2012–13	187
Appendix 6: Staffing statistics	189
Appendix 7: Protective Security Policy Framework	191
Appendix 8: Compliance checklist	197
<b>LIST OF ACRONYMS AND ABBREVIATIONS</b>	<b>201</b>
<b>INDEX</b>	<b>203</b>
<b>CORPORATE DIRECTORY</b>	<b>207</b>

# HIGHLIGHTS

## About ACIAR

The Australian Centre for International Agricultural Research (ACIAR) is part of the Australian Government's international development assistance program. ACIAR contributes to the aid program's fundamental purpose of helping people overcome poverty by delivering programs that improve food security through raising agricultural productivity. Australian aid operates within the Comprehensive Aid Policy Framework (CAPF), which outlines five strategic goals:

- saving lives
- promoting opportunities for all
- sustainable economic development
- effective governance
- preparing for, and responding to, disasters and humanitarian crises.

ACIAR leads Australian engagement in improving food security through international agricultural research partnerships, within the goal of sustainable economic development. The Centre encourages Australia's agricultural scientists to use their skills for the benefit of developing countries and Australia, to improve food security by lifting agricultural productivity amongst smallholder farmers. ACIAR works collaboratively with AusAID in areas of mutual priority, with both organisations contributing to the whole-of-government emphases of the aid program. ACIAR funds research partnerships that are developed within a framework that reflects the priorities of Australia's aid program and national research strengths, together with the agricultural research and development priorities of partner countries.

## Comprehensive Aid Policy Framework

### Overview

Helping the World's Poor through Effective Aid: Australia's Comprehensive Aid Policy Framework to 2015-16 (CAPF) is a roadmap that outlines future increases in aid budgets. The CAPF builds on the Independent Review of Aid Effectiveness,

that included a recommendation to increase funding to research. This was endorsed in the Government's policy statement: *An Effective Aid Program for Australia, Making a real difference—Delivering real results.*

That policy statement noted, under Australia's leadership role in food security, that "ACIAR funds research projects that reflect the priorities of Australia's aid program and our national research strengths, and works in partnership with agricultural research and development bodies in developing countries."

ACIAR's fit into the whole-of-government approach to aid delivery is also seen in our participation in projects over the past decade in East Timor, Solomon Islands, Papua New Guinea, in the aftermath of the Pakistani earthquake and most recently in Iraq, Afghanistan and northern Africa.

The CAPF positions ACIAR's role around food security, particularly in the strategic goal of sustainable economic development. ACIAR's research partnerships develop and disseminate new agricultural technologies. Through this research agricultural productivity gains are made, resulting in increased value and ultimately reduced poverty.

In addition to managing its own project portfolio, ACIAR also contributes to whole-of-government aid initiatives, such as the Food Security through Rural Development initiative, with programs in eastern Africa, the Mekong and Pacific Island countries. ACIAR also manages a selection of projects with AusAID funding, including Seeds of Life in East Timor and the Agriculture Sector Linkages Program in Pakistan.

## CAPF headline indicators

ACIAR's programs contribute to the CAPF indicator:

The CAPF goal aims for **750,000 farmers** (at least 40 per cent women) to access new agricultural technologies, resulting in increased crop value of **half a billion dollars**.

During 2012–13 ACIAR programs resulted in the following achievements against this indicator

Indicator	2012–13 figures
Farmers accessing new technologies	120,071
Number of women farmers	34,726 (33%)
Increased crop value (projects active in 2012–13)	\$116,508,768
Increased crop value (past projects)	\$71,500,000*

\* from impact assessments conducted on ACIAR research

## Purpose and strategic goals of the Australian aid program

### Our purpose

The fundamental purpose of Australian aid is to help people overcome poverty. This also serves Australia's national interest by promoting stability both in our region and beyond. We focus our efforts in areas where Australia can make a difference and where our resources can most efficiently and effectively be deployed.

### Our strategic goals

Saving lives	Promoting opportunities for all	Sustainable economic development	Effective governance	Humanitarian and disaster response
Improving public health by increasing access to safe water and sanitation	Giving more children access to school	Improving food security	Improving governance to deliver better services, improve security and enhance justice and human rights	More effective preparedness and responses to disasters and crises
Saving the lives of poor women and children through greater access to quality maternal and child health services, and supporting large scale disease prevention, vaccination and treatment		Improving incomes, employment and enterprise opportunities		
		Reducing the negative impacts of climate change and other environmental factors		

ACIAR plays a strategic role in promoting stability and prosperity both in our region and beyond through improving food security. We deliver Australian expertise in agricultural research which significantly contributes to sustainable economic development in agriculture – the largest livelihood and employment sector in many developing countries.

### The results framework

By improving food security ACIAR also contributes to the strategic goals of the Australian official development assistance program

### Tier 1 – Millennium Development Goals

ACIAR research contributes to:

Goal 1 eradicate extreme poverty and hunger – Delivering productivity gains to increase crop yields for smallholder farmers



Goal 7 ensure environmental sustainability – Reducing the negative impacts of climatic and seasonal variations and agricultural inputs on environmental sustainability

Goal 8 develop a global partnership for development – manage and administer Australia’s contribution to the CGIAR, foster and develop tripartite scientific partnerships to share knowledge and expertise between developing nations

- 8,250 farmers exposed to new technologies to improve rice-based establishment in Cambodia
- 1,094 farmers directly involved in research to improve mango supply chains in Pakistan, with another 3,578 farmers introduced to improved farming practices in dairy supply chains, and 21,000 farmers linked to research on citrus value chains.

The estimated increase in crop value is \$116,508,768.

Note parts of the above are extracted from the Comprehensive Aid Policy Framework, available on the AusAID website at <[www.ausaid.gov.au](http://www.ausaid.gov.au)>.

**Tier 2 – Sustainable economic development**

ACIAR contributes to:

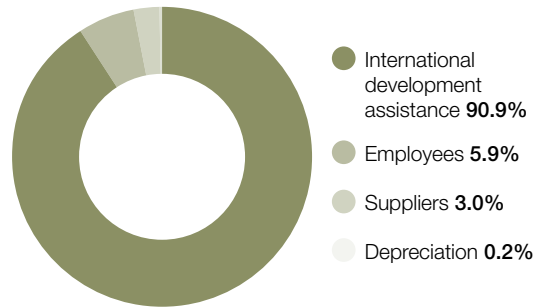
750,000 farmers (at least 40 per cent women) will be able to access new agricultural technologies, resulting in increased crop value of over half a billion dollars

More than 120,071 famers have been exposed to new technologies, with 34,726 of these women. Highlights include:

- Sustainable intensification of maize-legume based cropping systems for food security in Eastern and Southern Africa, with 24,853 farmers receiving new crop varieties
- 11,792 farmers in Timor Leste receiving improved staple crop varieties (program managed on behalf of AusAID)
- In Papua New Guinea 6,000 famers receiving new chickens, supported by information on feed options through ACIAR research

## Expenditure

ACIAR expenditure 2012–13



**Research expenditure by region 2012–13**



## Replacement Page 6 to ACIAR Annual Report 2012-13

### ACIAR administered expenditure overview

	2012-13	2012-13	2011-12	2010-11
	AOP budget (\$)	actual (\$)	actual (\$)	actual (\$)
Bilateral and multilateral projects by region and country				
<b>Papua New Guinea and Pacific Island countries</b>	<b>12,142,149</b>	<b>11,461,412</b>	<b>11,780,189</b>	<b>9,993,999</b>
Papua New Guinea	5,345,054	4,330,954	5,135,515	4,048,526
Pacific Island countries	6,797,095	7,130,458	6,644,674	5,945,473
<b>Indonesia, East Timor, Philippines</b>	<b>16,330,000</b>	<b>15,915,294</b>	<b>17,681,891</b>	<b>18,305,714</b>
Indonesia	7,723,275	7,623,315	9,187,547	8,508,937
East Timor	6,026,725	5,888,024	5,411,584	5,901,188
Philippines	2,580,000	2,403,955	3,082,760	3,895,589
<b>Mekong countries and China</b>	<b>22,048,521</b>	<b>15,992,769</b>	<b>16,616,544</b>	<b>12,302,937</b>
Vietnam	5,465,721	4,997,008	5,242,286	4,013,569
Laos	5,671,218	5,241,682	4,023,888	3,589,996
Cambodia	5,743,077	3,457,557	5,341,354	3,645,304
Thailand	360,000	174,291	242,390	125,440
Myanmar	3,080,000	1,535,120	178,776	64,029
China	1,728,505	587,111	1,587,850	864,599
<b>South and West Asia</b>	<b>19,614,694</b>	<b>16,335,720</b>	<b>11,641,607</b>	<b>10,681,113</b>
India	5,010,220	3,671,720	4,201,857	3,225,096
Bangladesh	1,910,625	1,662,453	1,688,965	1,302,517
Pakistan	3,651,228	2,803,170	2,879,670	2,314,631
Iraq	4,510,000	4,225,233	2,235,097	3,405,071
Afghanistan	4,048,621	3,417,424	46,050	40,950
Bhutan	254,000	252,442	187,392	215,312
Nepal	230,000	301,584	388,284	107,536
Other South and West Asia	0	1,694	14,292	70,000
<b>Africa</b>	<b>20,633,718</b>	<b>17,660,784</b>	<b>13,665,753</b>	<b>5,719,378</b>
African countries	20,633,718	17,660,784	13,665,753	5,719,378
<b>Total Projects</b>	<b>90,769,082</b>	<b>77,365,979</b>	<b>71,385,984</b>	<b>57,003,141</b>

	2012–13	2012–13	2011–12	2010–11
	AOP budget (\$)	actual (\$)	actual (\$)	actual (\$)
<b>Multilateral program</b>	22,330,000	23,082,274	23,028,507	28,994,344
<b>Building research capacity</b>	7,017,000	7,345,093	5,066,128	7,957,859
<b>Communicating research results</b>	805,000	822,195	690,329	688,287
<b>Measuring research impacts</b>	950,000	758,525	590,913	562,973
<b>Research program support</b>	2,632,918	3,519,736	2,472,651	1,753,820
<b>TOTAL</b>	<b>124,504,000</b>	<b>112,893,802</b>	<b>103,234,512</b>	<b>96,960,424</b>

## Selected achievements

In Papua New Guinea an integrated program is working with farming communities in Central Province to **increase vegetable production**, with a second component of the program examining options to establish markets and sustainable value chains to link to larger cities.

Sixteen technical training workshops have resulted in **significant capacity building for Pacific island researchers and rural communities** involved in the Pacific Agribusiness Research for Development Initiative, helping to develop commercial opportunities for niche crops in the region.

In Solomon Islands an **alternative system for growing high-value trees** that mixes the valuable species with indigenous tree production allows villagers to harvest local species, used for housing and construction, while preserving the higher-value species, allowing these to reach mature size and then be sold.

A program on fruit fly control, that has proven successful in Vietnam and parts of the Pacific is being extended into Java's Indramayu region, in Indonesia. The program uses protein baits and crop management to break the reproductive cycle of fruit flies, and has **proven so successful that farmers adjacent to the research activities are asking to get involved**.

ACIAR research is assisting Indonesia to establish appropriate mechanisms for the implementation of REDD, a program to **reduce emissions from deforestation and degradation**. The project is examining connections between governance and financial incentives to develop a mechanism for equitable distribution of REDD credits.



Capacity building of partner country scientists is vital to the long-term sustainability of projects.



ACIAR research links smallholder farmers to markets, helping people overcome poverty.

A trilateral research partnership that enables Australia to work together with East Timor and Indonesia to extend simple approaches to improving the **productivity and profitability of Bali cattle** that have been proven in similar environments in eastern Indonesia.

Support for ongoing control programs for pig diseases in the Philippines has been furthered through research developing cost-effective laboratory tests for bacterial and viral agents for

respiratory diseases. **The control systems are now being implemented in both Philippines and Australia.**

The dividend from past ACIAR research on acacia management in Vietnam is now being realised. Today in Vietnam acacia trees cover an estimated 2 per cent of the country's land surface. **Plantations—about half of them cultivated by smallholder farmers—supply about 10 million green tonnes of wood a year to saw and woodchip mills.** In turn the mills provide employment and business opportunities that further sustain rural development.

ACIAR is supporting the Lao Government's new Department of Agriculture Extension and Cooperatives (DAEC) that **aims to give districts and provinces support in providing effective extension services.** An ACIAR partnership is helping to implement the new extension systems.

In Cambodia ACIAR is assisting the development of a **profitable beef production** sector in the country's north-west. Research is implementing approaches to using crop residues from maize cultivation as forage feeds to help accelerate the growth rates of cattle, and also introduce crop rotations to restore soil fertility.

In partnership with the International Rice Research Institute, ACIAR is working to help **crop diversification in Myanmar's Ayeyarwady Delta.** The partnership is examining ways to advance the rice harvest, provide options for post-rice crops and encourage production diversification amongst smallholder farmers.

A joint India-Australia initiative to increase resistance to wheat rust has identified **favourable traits in wheat.** This has led to the advancement of new lines of rust resistance. The most advanced lines are now being evaluated in regional and national yield trials and are expected to lift productivity of wheat production.

Minimum tillage planters for conservation agriculture are now being produced in Bangladesh for local use and for export around the world. One group that is benefitting from this are itinerant labourers, who previously struggled to find employment, and **who are now earning above the poverty line** contracting services to prepare fields using the planters.

Through the ASLP program in Pakistan, research has identified the main causal agent of **Mango Sudden Death Syndrome (MSDS).** As a result a guide has been produced to help growers recognise the symptoms of MSDS and know how to manage these.

For the past 25 years, **ACIAR and AusAID have supported the development and delivery of a village-friendly vaccine for Newcastle Disease,** that doesn't rely on strict refrigeration. For poultry farmers, this has transformed lives. Prior to accessing the vaccine farmers kept no more than five birds as disease outbreaks meant that their chickens would die every year. After a flock is vaccinated the birds do not die off, allowing breeding. Today some farmers in Tanzania keep as many as 150 birds, and earn income from selling eggs and chickens.

The Australian International Food Security Research Centre has established a suite of projects, and launched an innovative partnership with Canada's International Development Research Centre, to deliver food security advances across ten eastern and southern African nations. The Canada-Australia partnership—**CultiAF—will build research capacity and increase opportunity for scientists in the region** through agricultural science and innovation, in particular on bridging the gap between science, technology and innovation, which is key to enhancing Africa's capacity to sustainably feed itself.

An Adoption Pathways project is **building on the fruitful partnership between ACIAR and African researchers** that began under the Sustainable Intensification of Maize and Legumes in Eastern and Southern Africa (SIMLESA) project. The project is examining socioeconomic, policy, institutional, risk, and agro-climatic constraints and incentives that affect farmers' technology-adoption behaviour, to help guide future initiatives.

During 2012–13 there were **110 active John Allwright fellowships** helping ACIAR partner country researchers gain post-graduate qualifications at Australian universities. The size of this fellowship scheme has increased significantly from 15 scholars in 1999–2000, in recognition of the capacity-building benefits provided to partner countries and the impact on regional relationships.



**COMMISSION  
CHAIR'S AND  
CHIEF EXECUTIVE  
OFFICER'S REVIEW**

## Cultivating partnerships for food security

Agriculture and food security have remained in the global development spotlight during 2012-13. Global economic pressures on food and agriculture have been evident in high and volatile food prices, and weather-related shocks continue to threaten food security for the world's poor and vulnerable.

Meanwhile, population movements, urbanisation, rising incomes and changing dietary preferences present new challenges and new opportunities. ACIAR has been attentive to changes occurring globally and in our partner countries, including conflict, climate and population changes, globalisation of agri-food markets, and changing access to food, water and land. These harsh realities confirm the critical importance of ACIAR's work and have encouraged us to press ahead with innovative approaches to delivering our programs.

Our project portfolio has been adapted in response to these dynamics. For example, we've designed new work to better understand adoption of agricultural technologies in conflict zones, we've given greater emphasis to our agribusiness and agricultural development policy programs; and we've embraced more regional and multidisciplinary programming, including supporting south-south research collaborations. During the year, we developed new trilateral partnerships, one linking Indonesian, Timor Leste and Australian researchers, and another linking five African nations to Indian and Australian expertise on conservation agriculture.

Agricultural research is a good investment. It is a particularly effective means of reducing poverty and ACIAR already has a reputation for delivering results that improve the lives of the rural poor. During the past year, ACIAR has delivered important new technologies and knowledge, and helped build the skills and capabilities in developing countries to increase incomes, create jobs, produce more and healthier food, improve health and achieve self-reliance. These achievements are set out in this report. We've also encouraged sharing of this knowledge with policymakers, other researchers, and communities around the world.

Over the thirty years since its establishment ACIAR has supported Australian and international agricultural scientists to collaborate closely with researchers from the developing world. We have become concerned in recent years about the decline in Australia's overall agricultural research capacity both because of its importance in underpinning productivity growth in our own agriculture sector and because ACIAR's operating model harnesses Australian expertise for its work in developing countries. We have been active in efforts to highlight the risks associated with this trend, for example in evidence to the House Standing Committee on Agriculture, Resources, Fisheries and Forestry.

During the year, the Government released its white paper on Australia's place in the Asian Century. The paper emphasised agribusiness as a key strategic industry for Australia, playing a leading role in shaping our economic and political relationships in Asia. ACIAR will play a modest but important role in Australia's invigorated efforts in Asian engagement.

Australia's aid program, of which ACIAR is a key part, underwent major changes during the year, as the Government continued to increase its Official Development Assistance (ODA), and as the recommendations of the 2011 Independent Review of Aid Effectiveness were put into effect. ACIAR has worked closely with AusAID and other agencies responsible for delivering ODA to shape an expanded program in line with new operating arrangements.

## Independent Review

In light of rapid changes in the operating context for ACIAR's work, both the Commission and Centre felt it was timely to review ACIAR's operations. At our request, the Foreign Minister commissioned an independent panel, chaired by Mr Bill Farmer AO, to examine ACIAR's effectiveness, efficiency and appropriateness as a contributor to global food security and poverty alleviation. The review, the first in 14 years, was completed in February and found that "ACIAR is an institution of which Australians can be proud". It also made a number of important recommendations for change. The report, and its recommendations, were accepted in entirety by Government and their implementation should contribute to sound and productive future operations for ACIAR.

The review has provided timely and insightful direction as ACIAR embarks on its fourth decade of operation. ACIAR, with guidance from the Commission, is now developing a new Strategic Plan to position the agency to consolidate and build on its track record of success.

## Selected achievements in 2012-13

ACIAR celebrated 30 years' partnership with **Indonesia** this year and marked this milestone during the Commission's June meeting held in Jakarta. Indonesia is one of our most significant partner countries, and our efforts to reduce the large number of poor in Indonesia's population align with the Australia-Indonesia Partnership (AIP 2008-13).

Research in the Indonesia program encompasses six of the poorest provinces in eastern Indonesia as well as the more-developed provinces of Java and Bali. Highlights over the year include research with diagnostic tools for significant plant and animal diseases: allowing chilli and allium crops to be tested for viral diseases, and to help assess poultry infections of highly pathogenic avian influenza (HPAI). Pest management strategies have been adopted by mango farmers in Java's Indramayu region, and the dramatic reduction in fruit fly damage has encouraged neighbouring farmers to participate in the project.

A livestock production project focusing on providing high-quality feeds to improve calving production has resulted in a higher number of calves, and significantly healthier animals. This success has led to ACIAR partnering with the Indonesian Agency for Agricultural Research and Development (IAARD) to establish the **IndoBeef** collaborative research program. IndoBeef is designed to improve the livelihoods of Indonesia's rural poor through strengthening the country's community-based beef sector. \$20 million has been secured for ACIAR over next 6 years, and will enhance research collaboration and capacity building, better animal health and welfare, and improved beef supply chain productivity and efficiency.

In **Timor Leste**, ACIAR continues to manage the Seeds of Life project. Now in its third phase, this project has identified plant varieties for improved performance, and is establishing a national seed system to provide these varieties to farmers

throughout the country. A highlight this year was the release of new varieties of white maize and sweet potato for wider cultivation. Farmers who tested the varieties reported significantly higher yields compared to their usual crops' production. In a trilateral partnership with Indonesia, animal husbandry research achieved improved cattle productivity and profitability by adapting practices that work well in eastern Indonesia to the Timor Leste context.

Research in the **Mekong** has a regional focus and is improving biosecurity and fisheries and forestry management. Increasing co-investment from Thailand and China is occurring for regional and national programs, as these countries' economies strengthen. A remote microscopy network has linked Thai quarantine officers to Australian experts in plant pests and diseases, dramatically increasing Thailand's capability to respond to potential or real incursions from across its borders. The success of this program has led to its expansion to other countries in the region, including Laos and Cambodia. Some national research highlights include improved production and profitability from Central Vietnam's sandy soils, developments in the use of teak and paper mulberry in Laos, and identification of elite rice lines well suited to Cambodia's lowlands.

In **Myanmar** in June, ACIAR signed a Memorandum of Understanding to implement the animal health component of a new \$12 million multidisciplinary program. This program was developed in close partnership with AusAID, and signifies a greater level of cooperation between the Australian and Myanmar Governments. Myanmar is undergoing a period of ambitious reform and we look forward to helping the rural poor benefit from the new opportunities.

In **Pakistan**, a joint effort between the Australia Pakistan Agricultural Sector Linkages Program and the European Union's Trade-Related Technical Assistance Program opened up export opportunities for Pakistani mangoes, through the development of codes of practice for the complete mango chain. The research has also provided management strategies for orchard growers to deal with Mango Sudden Death Syndrome. Another Pakistan highlight was the successful trials of the FMI Rocket Seeder confirming it as a major breakthrough in no-till wheat seed planting.

ACIAR's current biggest single project, SIMLESA, continued its success in lifting productivity in south-eastern Africa through sustainable intensification of maize–legume farming systems. New partners from the private sector and NGOs joined the program and agreed on expanding SIMLESA activities, in line with the target of reaching out to 100,000 farmers within 10 years. Livestock and forage research in the East Cape Province resulted in sheep doubling their liveweight after 10 weeks grazing on pasture with improved legumes.

The **Australian International Food Security Research Centre** (AIFSRC) is now well established, successfully launched by the Foreign Minister, Senator Bob Carr in Sydney in November. Minister Carr also announced a new \$15 million partnership between the AIFSRC and Canada's International Development Research Centre (IDRC) dedicated to reinvigorating food security research in Africa. The new research activities will complement other projects within ACIAR's Africa program in south-eastern Sub-Saharan countries and in North Africa. Close consultation through continent-wide – such as the Forum for Agricultural Research in Africa (FARA) – and African regional and national bodies ensures that the research focuses on addressing the needs of Africans.

ACIAR's engagement with the **CGIAR** (formerly the Consultative Group on International Agricultural Research) continues to be both strong and constructive. Australia, through ACIAR, represents Pacific donors on the decision-making body of the CGIAR, the Fund Council. Australia's contribution is recognised well beyond the dollars we provide.

During the year, ACIAR's John Allwright and John Dillon **Fellowship programs** were integrated into the wider Australia Awards program, and the CEO was appointed by the Minister to the Australia Awards Board. These developments give greater visibility to our important efforts in building capacity and we believe that ACIAR's innovative approaches have something to offer the Government's wider scholarship program.

## Staff and operations

A survey of our Australian project leaders highlighted how ACIAR stands out from other funding providers, in terms of close and enduring relationship with research partners, and willingness to fund innovative research. Crucially our Australian partners echo what our country partners continue to tell us, that ACIAR is prepared to do the hard yards to 'go the distance'.

ACIAR continues to attract high calibre staff. This year saw the appointment of two new research program managers: Dr Eric Huttner for the Crop Improvement and Management program; and Dr Evan Christen for the Land and Water Resources program. Sadly, this year also saw the tragic and unexpected passing of one of our program support officers, Julie Hart. We extend our sincere thanks to the staff for the support provided to Julie's family and each other at such a difficult time.

## Outlook

While impressive gains have been made in alleviating poverty and hunger globally, much remains to be done. As the world approaches the 2015 deadline for the Millennium Development Goals, focus moves to a development agenda beyond 2015. We will seek to positively influence the global debate, including through the G20 as Australia takes over Presidency in December.

In the period ahead, ACIAR will give greater emphasis to ensuring the outputs from the research we fund make a real and positive difference to the lives of the world's poor, particularly those in the Asia-Pacific region. The impact of our work will be enhanced by accelerating the adoption of new technologies.



ACIAR's efforts will remain well aligned with Australia's aid, foreign policy and trade objectives. We will continue with the transition from project-level engagements, towards some larger, more focused programs.

As the research capacities of key partner countries, such as Indonesia, India and China, continue to strengthen, ACIAR will seek to harness and work with these in new ways. We will seek to develop further south-south cooperative ventures and will play a strategic role in facilitating new partnerships.

The year ahead presents the opportunity to refocus ACIAR's strategic direction. ACIAR will give further attention to strengthening engagement within government and with key stakeholders and, enhancing ACIAR's visibility with the general public. ACIAR has great stories to tell. We will work on finding ways, including through new media, to make sure our messages reach target audiences. We will also work on aspects of project and program development, introducing new processes to sharpen strategic direction.

At an agency level, ACIAR will be focusing on delivering our Strategic Plan, putting in place a new organisational structure and implementing the recommendations of independent review. Operationally, we will focus our attention on the agency's systems and processes to maximise the efficiency and effectiveness of our operations.

Within ACIAR, there is a strong sense of renewal and refocus as we prepare to succeed into the future.



Dr Nick Austin, Chief Executive Officer



Ms Joanna Hewitt AO, Commission Chair





# THE YEAR IN REVIEW REGIONAL AND PROGRAM ACHIEVEMENTS

# Papua New Guinea and Pacific Island countries

## Papua New Guinea

The program in Papua New Guinea (PNG) is working to improve food security and increase rural incomes for smallholder farmers. Major research topics focus on sweetpotato (the staple food of a large proportion of the population), export tree commodities such as timber, palm oil, coffee, cocoa and coconut products, village-based aquaculture and other fisheries. ACIAR also promotes the role and effectiveness of women's groups in rural industries.

## Pacific Island countries

ACIAR is working in Pacific Island countries, including Fiji, Solomon Islands, Vanuatu, Samoa, Tonga and Kiribati, to improve food and nutritional security, develop integrated and sustainable agriculture, develop fisheries and forestry resources, and improve market integration in agriculture, fisheries and forestry products. ACIAR collaborates with regional organisations to bolster the limited research capacity of many countries.

## Papua New Guinea

### Highlights

- A novel prison rehabilitation project titled 'Fish for Prisons' introduced by the National Fisheries Authority in collaboration with ACIAR is having a positive social impact.
- Efforts in East New Britain are helping to lift the balsa wood industry's value and sustainability while increasing involvement of smallholders.
- The introduction of a rust fungus specific to the invasive weed 'mile-a-minute' has seen successful control trials, leading to the release of the rust in 15 provinces.
- Opportunities opening up for farmers in Central Province to grow vegetables and supply urban markets.

### Country overview

Papua New Guinea is one of Australia's most important development partners. ACIAR's investment reflects this, and its program

recognises the many challenges to agricultural development in Papua New Guinea—including poorly developed infrastructure, weak market signals and services, new pest and disease threats, poor product quality, and pressure on land and renewable resources as a result of population increases and mining development.

ACIAR ensures that its research program is economically, culturally, socially and environmentally relevant to the smallholder farmers. The program has a focus on the role of women in agriculture from a variety of perspectives, for example marketing access and constraints to uptake of new technologies. There are emphases on plantation crops, root and other horticultural crops, forestry and fisheries. These include exported and domestically traded commodities that generate smallholder income and underpin improved food security and economic development.

A key component of Australia's involvement in Papua New Guinea is the ACIAR–AusAID research partnership, in which AusAID co-invests in ACIAR-managed activities. Current research area priorities include: overcoming social, cultural and policy constraints that hinder adoption of agricultural technologies; lifting smallholder incomes from horticultural crops, especially vegetables and starchy staples; and poverty reduction through more diverse activities and strategies that lift smallholder income. They also include improving smallholder returns from plantation crop production and marketing, especially for cocoa, coffee and oil palm, and enhancing livelihoods from smallholder fisheries, aquaculture and forestry. Agricultural biosecurity is a vital concern, with special focus on invasive and economically damaging species affecting livestock, crops, fisheries and forestry.

## Research achievements

### CAPF outcome

Farmers accessing new technologies	6363
Number of women farmers	3171
Increased crop value (projects active in FY12–13)	\$45,500

ACIAR is encouraging the adoption of commercial-scale high-value tree-growing by communities in two areas of PNG. These ventures are being fostered by establishing relationships between landowners and selected business partners and non-government organisations, with forest scientists providing technical support. This new system is enabling the gradual emergence of community forestry with a commercial and therefore more profitable aspect.

A novel prison rehabilitation project titled 'Fish for Prisons', introduced by the National Fisheries Authority in collaboration with ACIAR, is having a positive social impact. First trialled at Bihute Prison on the outskirts of Goroka, the fish farming project has already seen a promising reduction in crime, tribal war and antisocial behaviour, increases in self-esteem among individuals, and cooperation between former adversaries. The participatory approach of the program has seen inmates and prison official working alongside researchers. With encouragement from the national prison system the NFA and ACIAR plan to expand the program to prisons around the country with suitable sites for fish farming.

**Cocoa pod borer (CPB)** moth threatens the cocoa industry in East New Britain Province. With ACIAR assistance, efforts are underway to implement management strategies. The work has led to the strengthening of surveillance and monitoring, and the research team has provided strategies to stakeholders through a suitable integrated pest management (IPM) approach. The steps to control CPB are good crop hygiene, shade reduction, regular and complete pod harvesting, insecticide applications and insect trapping. It has led to the saying among the cocoa farmers: 'Every pod! Every tree! Every week!'

In East New Britain **balsa wood growing** and processing is already a successful industry. Now ACIAR is helping to lift the industry's value and sustainability while increasing its accessibility to smallholders. It is a welcome income addition in an area presently trying to deal with cocoa pod borer. This fast-growing tree can reach 30 metres in height in 5 years, and the lightweight balsawood has a ready market. The research has helped

identify key issues of concern, including how to integrate the trees into smallholdings, silvicultural management of the trees, processing, developing innovative products, and marketing.

Mile-a-minute weed (*Mikania micrantha*) poses a major problem for farmers – as its name suggests it is very invasive and smothers both plantation crops and village vegetable gardens. It reduces yields and burdens growers with the task of trying to control it. With support from ACIAR and the Secretariat of the Pacific Community project work is underway to find potential biological control agents. A promising rust fungus was successful in trials and has now been released in 15 provinces. Biocontrol has already been confirmed in four provinces.

There is a demand for **temperate vegetables in urban centres**, but supply is hampered by poor transport infrastructure from production areas—that have largely been in highland areas. Opportunities are now opening up for farmers closer to the urban centres to grow vegetables in the major alluvial valleys of Central Province. ACIAR is supporting efforts to equip the farming communities to build a profitable livelihood through vegetable growing. An evaluation trial is testing a range of vegetables for performance at three different altitudes—testing varieties of tomato, bean, capsicum, eggplant, corn, carrots and broccoli. A related economic study is examining the transport of food from the production areas to the population centres, without doubt one of the prime challenges to establishing reliable markets.

A project to develop and implement meaningful, practical environmental sustainability indicators for soil and water resources seeks to help the palm oil industry obtain environmental accreditation, an essential for its long-term viability. The project has built connections between smallholder producers and the PNG Oil Palm Research Association (PNGOPRA), New Britain Palm Oil Limited (NBPOL) and the Oil Palm Industry Corporation (OPIC). It has also involved students from the University of Natural Resources, who took soil and plant samplings and measurements as part of their industrial training.

## Guide to raising healthy sweetpotatoes

Sweetpotato (kaukau) is a major subsistence food in PNG, an increasingly important cash crop and vitally important for food security. ACIAR has invested a great deal over many years to provide the population with the most nutritious, disease-free varieties that are acceptable to local tastes. The success has culminated in the recent publication of a best-practice manual, *Growing healthy sweetpotato: best practices for producing planting material*.

Project leader Michael Hughes says that friendship and collaboration has produced the win/win research that led to the development of the manual. The work began with activities in Queensland, where the Department of Agriculture, Fisheries and Forestry recognised sweetpotato as a crop of increasing importance and funded the development of a process for removing disease-causing organisms (e.g. viruses) from plants over a number of years. This process, known as pathogen testing (or PT) has provided Australian farmers with access to high-quality planting material that led to a 50% increase or more in marketable yield. It has enabled the massive productivity improvement the Australian industry has undergone in the last decade.

In PNG, the National Agricultural Research Institute (NARI) and Fresh Produce Development Agency (FPDA) also showed keen interest in improving the sustainability of sweet potatoes grown there. ACIAR was the conduit to link these organisations, enabling Queensland to further refine the PT process and PNG to implement the latest technology in developing their own PT system.

Australian researchers in the ACIAR projects profited from their experience working in the field in PNG, while the PNG team had the chance to visit Queensland and take a 'hands on' approach to learning the PT process. These visits were a valued two-way learning experience from which many new friendships were formed.

This mutual exchange was a natural platform for developing a suitable manual – small enough to be carried into the laboratory or screen house, easy to open at any page, and clearly displaying the basics of the procedures discussed. It promises to be a top reference in a field that will continue to expand in Australia, PNG and wherever quality sweetpotato is grown.



Sweetpotato is a staple crop, widely produced and sold throughout Papua New Guinea. Helping increase production opens up opportunities for smallholder producers, particularly women.

# Pacific Island Countries

## Highlights

- Benefits emerging from decade-long research, creating fisheries-based enterprises that are compatible with traditional lifestyles and able to generate significant income.
- Substantial gains found possible for cocoa growers in Fiji, Samoa and Vanuatu if they adopt Integrated Pest and Disease Management (IPDM) into their farming practices.
- An alternative system for growing high-value trees mixes the high-value species with an indigenous tree used in villages for housing and construction, giving the growers an acceptable option as their high-value trees grow to harvest size.
- Steady progress in developing high-quality veneer for flooring and furniture, along with complementary soil conditioning products, from senile coconut stems.

## Regional overview

ACIAR's program in the Pacific Island countries, (which embraces Solomon Islands, Samoa, Tonga, Vanuatu, Fiji and Kiribati), helps to transform the agricultural, fisheries and forestry systems in these countries from subsistence to sustainable income-generating activities. The program seeks to improve productivity and marketing, enhance food security and self-reliance, and reduce poverty. It has a special focus on women to amplify the central role they play in household food gardening, tree crop production, and in marketing of horticultural, tree crop and fisheries products.

In agriculture, ACIAR focuses on adaptation to changes in climate, and identification and management of constraints to productivity and market engagement in both staple root and high-value crops. The program seeks to identify suitable markets and to develop new high-value horticultural crops (fruits, vegetables and ornamentals) and products derived from them for domestic, regional and international markets. The fisheries component addresses sustainable production from oceanic and inshore fisheries, development of alternatives through aquaculture, and increases in economic returns through improved product quality and better market

linkages. The forestry program promotes the development of value-adding forest industries, whereby landowners derive benefits from both timber and non-timber forest products.

ACIAR works closely with AusAID to develop complementary and jointly funded projects aimed at addressing national development priorities and regional issues. The ACIAR-funded Pacific Agribusiness Research for Development Initiative (PARDI) is designed to provide (among other objectives) research and technical underpinning for the AusAID-funded PHAMA, an initiative to assist Pacific Island countries to gain and maintain access to key markets for selected high-value Pacific products.

Its strong emphasis on building R&D capacity within the region has led ACIAR to form a partnership with the University of the South Pacific (USP) to implement a postgraduate training program by way of scholarships for research associated with relevant ACIAR projects.

## Research achievements

### CAPF outcome

Farmers accessing new technologies	880
Number of women farmers	348
Increased crop value (projects active in FY12–13)	\$2,174,000

Better technologies, processes and expertise are needed for an industry in South Pacific communities to produce high-quality veneer and complementary soil conditioning products from **senile coconut stems**. A project has arranged peeling studies in France to obtain veneer from material sourced in Fiji, while in Australia locally obtained coconut stems have been tested to determine the best equipment and methods for producing veneer. Soil health studies are seeking to develop a specification for biochar and investigate other possible residue uses such as mulching and pelletising, or using the sugary stem core directly as a growing medium.

Pacific Agribusiness Research for Development Initiative (PARDI) activities are based around 11 commodity-focused research projects, a series of integrated market and consumer studies, and targeted agribusiness/supply chain support initiatives. Building on the effort of previous years,

this past year has seen an increased focus on **regional capacity building**. PARDI projects have arranged 16 technical training workshops during the period. Two of note involved significant community engagement; a tamarind workshop attracted 101 villagers in Vanuatu, while 116 villagers participated in the breadfruit workshop in Fiji.

A project to help rebuild cocoa growing industries concluded a 12-month investigation of farmer adoption of Integrated Pest and Disease Management (IPDM) in Vanuatu and undertook an IPDM educational program in Fiji. It also determined the availability of improved cocoa genetics in Fiji, Samoa and Vanuatu. Effective cocoa IPDM was found to offer smallholder farmers a yield 138% greater than current practice (no cocoa management), as well as 50% improvement on returns to labour. However, it also requires farmers to commit 52% more time to cocoa production activities every month, and this is impractical in the social and cultural context. The project will therefore encourage the application of cocoa IPDM to a smaller and more manageable number of trees.

In Solomon Islands, as elsewhere, thinning out young trees in a teak plantation is very unpopular; growers cannot understand the need to remove trees they have spent years growing and cannot

sell. A project has sought a solution to this problem—part of the difficulty is that each teak tree is perceived as valuable and there is no history of local use. Thinning the trees has therefore no practical advantage to the grower. The project has developed an **alternative system for growing high-value trees** that mixes the high-value species with an indigenous tree (*Flueggea flexuosa*) widely used in villages for housing and construction. Growers plant two of these local trees for every teak tree but progressively harvest the local trees for their own use, effectively thinning the stand and allowing the high-value timber to reach mature size.

In Tonga a major impediment to the sustainability and expansion of the pearl industry was a reliable and adequate supply of oysters. A project focused on developing appropriate hatchery culture techniques for the winged pearl oyster *Pteria penguin*, followed by using hatchery-propagated oysters for pearl production. The project was successful in increasing the numbers of spat and then demonstrating the production of high quality half-pearl from *P. penguin*. These outcomes, together with the pearl farming expertise already present in Tonga, will enable this project to have immediate impact.



## Pacific communities offered new fisheries enterprises

Communities in the Pacific (and also Papua New Guinea) stand to benefit from new fisheries enterprises that have emerged following a decade-long investment by ACIAR and others including WorldFish to develop fisheries-based activities that are compatible with traditional lifestyles and able to generate significant income.

A decade long program successfully implemented fourteen ‘mini-projects’ that led to significant capacity building. The results generated widespread support from the region, followed by endorsement for continuation from a Pacific Heads of Fisheries meeting in April 2006. A follow-on project, *Developing aquaculture based livelihoods in the Pacific Islands region and tropical Australia*, has provided study opportunities for Pacific islanders—thereby enhancing the aquaculture technical skills available within the region and the professional capacities of Pacific Island countries.

This project was designed to help the Pacific Islands region address critical bottlenecks and identify opportunities to develop aquaculture that is economically, socially and environmentally sustainable. It also assisted indigenous aquaculture enterprises in tropical Australia. It involved a broad range of commodities and themes—including culture of ornamental species, pearl oysters and pearls, freshwater fish and prawns, mud crab, sea cucumber and seaweed. In addition, local aquaculture enterprises received support to improve business skills, feed production, culture system design and disease testing.

One particular enterprise is helping villagers and local fishermen to become active in their conservation and stock-replenishment of sea cucumbers—sea creatures that risk being hunted to extinction in many Pacific areas. Exciting developments are also occurring with oysters. The focus at this stage is on pearl production rather than edible culture. The longline setups are growing well and the project team is getting some beautiful and distinctive colours.

Of particular interest are ‘mabé’ pearls, half pearls grown on the shell. The technology is under development in Tonga, Fiji and PNG. In Fiji mabé culture is now established at the farm of the country’s biggest round pearl producer. A local artisan—the best carver in Fiji—has turned the mabé into beautiful jewellery, some of which has been sold in Europe. Towards the end of 2013 the current pearl project will hold a handicraft workshop for women of the region in Kavieng, PNG.



Mabé pearls are a potentially lucrative industry for smallholders. ACIAR research is helping build skills and lift production.

## Indonesia, East Timor and the Philippines

### Indonesia

Indonesia has a growing regional and economic status, which has subsequently altered Australia's development cooperation relationship with that country. Increasingly, aid is delivered through partnerships and support for Indonesian Government agencies and systems. ACIAR focuses on research activities within value-chains and at the farming community level, with researchers integrated where necessary with a wide range of stakeholders—including farmers, the private sector, non-government organisations (NGOs), extension services and policymakers.

### East Timor

ACIAR projects seek to improve productivity and resilience of livestock and fisheries systems, transform smallholder and community livelihoods, and raise individual and institutional capacity. To deliver these projects, ACIAR focuses largely on the second of the four objectives in the Australia–East Timor Country Strategy (2009–2014): to increase employment by investing in increasing agricultural productivity, improving infrastructure, promoting vocational education and developing the private sector.

### Philippines

ACIAR continues to support Philippine research for development to improve market competitiveness of products from aquaculture, horticulture and livestock enterprises. A new priority aims to reduce the adverse effects of climate change on the rural poor. Underpinning this improved competitiveness is the need to enhance agricultural productivity through more effective extension processes and greater responsiveness to market opportunities, while better land and water resource management are also vital.

## Indonesia

### Highlights

- Australia and Indonesia partner to launch IndoBeef, designed to strengthen Indonesia's community-based beef sector.
- Farmers in Java's Indramayu region have seen fruit fly damage reduced dramatically, with neighbouring farmers also eager to participate in the project.
- Strawberries prove a popular alternative crop to generate income in Papua and West Papua, with strong demand for berries and new plants in local markets.
- Diagnostic tests identify viral diseases affecting the productivity of allium and chilli crops.

### Country overview

The Indonesia program is ACIAR's largest, due to the country's proximity and strategic importance to Australia, and to the imperative for reducing the large number of its population living in poverty. The Australia–Indonesia Partnership (AIP 2008–13) is a comprehensive plan that reflects these priorities. ACIAR directly supports the AIP (Pillar 1) through a focus on sustainable growth and economic management<sup>7</sup>, especially in improving rural growth and livelihoods.

The geographic focus of the Indonesia program encompasses some of the poorest regions—including six provinces in eastern Indonesia—as well as the more-developed provinces of Java and Bali. The research program has the flexibility to address rural poverty through some alternate approaches. These include initiatives to address food and nutritional security through enhanced productivity and food quality, or to improve market linkages for high-value products sourced from smallholder production systems. In undertaking these initiatives the program encourages better linkages between national and province-based research agencies.

Wherever possible, ACIAR implements its Indonesian research program as part of a whole-of-government approach involving AusAID and the Department of Agriculture, Fisheries and Forestry (DAFF). The program also delivers by partnering with international development agencies such as the International Fund for Agricultural Development

(IFAD) in the provinces of Papua and West Papua. ACIAR projects are increasingly involving major private sector partners.

ACIAR's medium-term research strategy (2012–16) focuses on: improving policies to underpin agribusiness development; strengthening livestock production and biosecurity systems; underpinning the development of competitive horticultural and field cropping systems; supporting profitable smallholder aquaculture systems; enhancing capture fisheries management; enhancing forestry products and services; and developing profitable agribusiness systems for eastern Indonesia.

## Research achievements

### CAPF outcome

Farmers accessing new technologies	7,671
Number of women farmers	3,067
Increased crop value (projects active in FY12–13)	\$37,700

Highly pathogenic avian influenza (HPAI) has become endemic in Indonesia and continues to reduce poultry profitability and cause human deaths. Earlier ACIAR-supported research developed a promising **new cost-effective diagnostic tool**, the 'Differentiation of Infected from Vaccinated Animals (DIVA)' test, to 'proof of concept' stage. The test first underwent laboratory evaluations in Australia and Indonesia, and work is now progressing well to evaluate its performance under field conditions in Indonesian poultry.

Indonesia has an extensive mango industry but pest fruit flies, the major insect pest in horticulture, can lead to losses of up to 80%. A project is introducing to Java's Indramayu region several well-established pest fruit fly techniques—including male annihilation, protein bait spraying and crop hygiene—to **reduce pest fruit fly numbers** and associated crop losses. Farmers have seen the benefit of the project, and as a result neighbouring farmers have offered their orchards for blocking.

In upland areas of Papua and West Papua provinces efforts are underway to improve nutritional value and cash income in communities that rely on sweet potatoes and pigs. A current project is building on previous work to improve postharvest sweet potato management and pig production, as well as looking for **alternative small**

**enterprises**. Four new crops were introduced in both Papua and West Papua. Strawberries proved to be the most popular and there is a strong demand for berries and new plants in local markets. Production is now expanding without project assistance. Rabbits and village chickens have also been introduced to diversify animal production.

Allium (shallot and garlic) and chilli/capsicum are two of the most popular types of vegetable crops – usually grown in rotation with rice but far more valuable and increasingly in high demand. Their **yield and profitability could be much greater**, and a project is seeking to raise the productivity by addressing a range of agronomic constraints. Diagnostic tests have already identified viruses not previously identified in alliums in Indonesia and Australia, and earlier ACIAR chilli selection of germplasm for Gemini virus resistance is being used in evaluation trials.

Moves to improve the governance, policy and institutional arrangements to **reduce emissions from deforestation and degradation (REDD)** are subject to many international negotiations and conferences. But there are few examples to date of effective and equitable mechanisms to distribute payments to landowners who change their forest management practices. An ACIAR project is assisting Indonesia to establish appropriate mechanisms for the implementation of REDD+. The project has so far identified the important governance factors affecting forest management at the local level and the roles of financial incentives in influencing local governments' decisions on land-use change. It is currently working to develop a mechanism for equitable distribution of REDD credits that accounts for Indonesia's land tenure systems.

Increasing in-country production of beef depends on improving productivity of smallholder enterprises. Introduction of **high-quality feeds can increase cow output** to close to one calf per year, rather than calving every 18–24 months. A project has shown that planting tree legumes in test areas has contributed to better feeding and, together with improved weaning practices, the cows at calving are in significantly better condition and their offspring thrive. The success of this work has spurred the development of the IndoBeef project described.

## Beefing up smallholder cattle productivity

ACIAR has partnered with the Indonesian Agency for Agricultural Research and Development (IAARD) to establish the IndoBeef collaborative research program. IndoBeef is designed to strengthen Indonesia's community-based beef sector and improve the livelihoods of Indonesia's rural poor. It will focus on the regions of South Sumatra, East Java, Nusa Tenggara Barat (NTB) and Nusa Tenggara Timur (NTT).

About 120 million Indonesians live on less than \$2 per day. As the agricultural sector employs two-thirds of Indonesia's poor, the Australian and Indonesian governments have recognised that improvements in community-based beef production and supply chain efficiency offer potential to help reduce rural poverty.

Delivery of the IndoBeef program is also expected to provide mutual benefits for Indonesia and Australia through enhanced research collaboration and capacity building, better animal health and welfare, and improved beef supply chain productivity and efficiency in Indonesia. The project, which has secured \$20 million in Australian overseas development funds over six years, will commence in 2014.



Lifting the capacity of Indonesia's smallholder beef sector will help increase demand for cattle products, and creating a pathway out of poverty for many smallholder producers.

## East Timor

### Highlights

- New high-performing quality protein white maize released for wider cultivation.
- Australian and Indonesian researchers help East Timor adopt simple approaches to improving the productivity and profitability of Bali cattle.

### Country overview

ACIAR's research agenda supports the Australia–East Timor Country Strategy (2009–14), developed in parallel with the East Timor Government's medium-term strategic development plan.

ACIAR focuses largely on the second of its four objectives, with a view to increasing employment by investing in increasing agricultural productivity, improving infrastructure, promoting vocational education and developing the private sector. ACIAR does this through projects that improve productivity and resilience of livestock and fishery systems, transform smallholder and community livelihoods, and raise individual and institutional R&D capacity.

Opportunities for ACIAR assistance in East Timor lie in the food crops sector, where yields are low by regional standards. Agriculture provides livelihoods for more than 80% of the East Timorese population and accounts for 30% of gross domestic production. It is critical to make available improved varieties with higher yields than local varieties. Livestock production is almost totally managed by individual households, very few of which are specialist livestock raisers. Pigs and poultry survive largely by scavenging, while grazing animals rely on native pastures, crop margins and crop stubbles.

While East Timor is well endowed with marine fisheries resources, the country needs a coherent policy framework and fisheries investment strategy, as well as help to protect its fish stocks against illegal fishing by foreign fleets, and better integration of freshwater aquaculture with agriculture.

## Research achievements

### CAPF outcome

Farmers accessing new technologies	11,892
Number of women farmers	5,896
Increased crop value (projects active in FY12–13)	\$3,539,000

Seeds of Life, Phase III continued to address the need to **deliver high-performing seed to growers** through evaluation of improved food crop varieties, formal and informal seed production and distribution, and seed system management. After four years of project on-farm trials, the Minister of Agriculture, Fisheries and Forestry officially launched a new high-protein white maize variety 'Noi Mutin' (white darling in English) in July 2012. Three new varieties of sweetpotato were also released, and small multiplication areas supported by micro-trickle irrigation systems were established close to the farmers requiring sweetpotato cuttings. Farmers evaluated new varieties of target crops; when asked to compare released varieties with locals in a baseline survey, 87.5% of farmers responded that the new varieties yielded either better or much better than local varieties.

ACIAR continues to support a trilateral research partnership that enables Australia to work together with East Timor and Indonesia. In East Timor live weight production per 100 kg of cattle maintained is estimated to be less than half an achievable level of 20–30 kg/year. Some constraints include limited forage, husbandry practices that do not target production, social systems that favour keeping rather than producing cattle, limited markets and supporting infrastructure, and some endemic infectious diseases. Australian and Indonesian researchers are now helping East Timor adapt for its local conditions the simple approaches to improving the **productivity and profitability of Bali cattle** that are working well in eastern Indonesia.

## Philippines

### Highlights

- Better understanding of respiratory diseases in pigs set to improve industry productivity in Philippines and Australia.

- Introduction of integrated crop management systems for open field and protected cropping will help the vegetable industry in four regions of the southern Philippines.
- Development of ways to introduce, culture and process high-performing seaweed strains opens up opportunity for a more profitable and sustainable industry.

## Country overview

The mountainous nature of the Philippines means there is relatively little new land suitable for expanding rice areas, and productivity growth in existing areas in recent years has been low. In addition, the population continues to grow at more than 2% per year (expected population will rise from 95 million to 101 million over the next seven years). In 2008 the Philippines became a net food importer for the first time since the early 1980s. While production of rice remains a dominant national priority, there is increasing pressure in the country to diversify and produce a range of other food, livestock and fisheries products.

ACIAR specifically seeks to assist in increasing productivity, marketability and international competitiveness for Philippine agricultural products. Underpinning this improved competitiveness is the need to enhance agricultural productivity through more effective extension processes and greater responsiveness to market opportunities.

The following are the lead priorities for the Philippines under ACIAR's medium-term research strategy (2012–16), agreed in February 2012: increasing the market competitiveness of Philippine horticultural products; competitive and sustainable fisheries and aquaculture production; land and water resource management for profitable and sustainable agriculture; improving returns from low-input animal production systems; tackling the adverse impacts of climate change on the rural poor; improving agricultural technology uptake through better understanding of extension and uptake processes. Undertaking the program involves engagement with a wide range of local 'next-user' partners (such as local government units, NGOs, commercial agribusiness companies and farmer community groups).

## Research achievements

### CAPF outcome

Farmers accessing new technologies	15,044
Number of women farmers	55
Increased crop value (projects active in FY12–13)	-

- denotes too early in project cycles to make an assessment

A major **constraint to pig industries** in both Philippines and Australia is respiratory disease. A recent outbreak in Luzon of a pathogenic strain of porcine reproductive and respiratory syndrome (PRRS) virus has led to a collaborative project to support ongoing control programs. The project is making good progress in identifying technical gaps in field outbreaks and surveillance, developing cost-effective laboratory tests for bacterial and viral agents for respiratory diseases, implementing systems in both Philippines and Australia, and developing mechanisms to communicate the results throughout the Philippines industry.

Coral reefs are declining globally, and this is particularly evident in the Philippines. A project just underway is testing whether reef restoration could be significantly enhanced by mass coral larval settlement to **greatly increase coral recruitment**. A successful outcome could ensure coral community regeneration over much shorter timescales than takes place in nature, and would have global application.

ACIAR has invested substantially in projects to increase the market competitiveness of horticultural products in the southern Philippines, and registered excellent progress. A newly commissioned project is focusing on crops, production systems and issues that constrain **production of key vegetables**. The project is developing integrated crop management systems for open field and protected cropping over four regions in the southern Philippines to help farmers profitably produce tomatoes, sweet pepper, eggplant, ampalaya (bitter melon) and leafy vegetables.

## New-look seaweed culture

For many coastal communities in Philippines and Indonesia seaweed is the only source of income and has a proven livelihood impact. But productivity of seaweed aquaculture in the two countries has been in steady decline for more than a decade. The main cause of this decline is thought to be the industry's reliance on a handful of cloned strains. An ACIAR project is seeking to identify, test and distribute new high-performing strains of those seaweeds used in the hydrocolloid industry (producing the sought-after product carrageenan).

The Southeast Asian Fisheries Development Centre (SEAFDEC) in Ilo Ilo, Philippines is one of the focuses of the strain development objective, and project scientists have collected strains of seaweed from across the Philippines to establish a living library at SEAFDEC's laboratory. One of the factors reducing the productivity of seaweed aquaculture in SE Asia is a bacterial disease called 'ice ice'. SEAFDEC is developing an assay that will track the disease in seaweeds and this will help determine any variations in disease resistance among strains of seaweed. Initial indications are that disease cannot be induced in healthy unstressed seaweeds.

The project is also looking for alternative income streams to assist the seaweed farmers, and project members are investigating ways of value-adding to the seaweed aquaculture industry. A key component of this objective is the chemical analysis of seaweeds and seaweed processing wastes to identify potentially commercially valuable chemicals, especially plant growth promoters. Southern Cross University in Australia has developed a method for the extraction and the chemical quantification of plant growth promoters from seaweeds.

In another development Mars Symbioscience has produced a prototype on-farm seaweed processor that can chop raw seaweed, improving the drying efficiency for on-farm seaweed processing. The resulting semi-processed product has better storage and transport properties than the whole dried seaweed that the farmers currently produce. Using the Southern Cross University method the project team has identified plant growth promoters in the liquid waste stream from the processor that may be useful additions to a fertiliser formulation.



Dr Peter Horne (second from left) and Dr Nick Austin (fourth from left) inspect fisheries research activities.

## Mekong countries and China

This program comprises Vietnam, Lao People's Democratic Republic, Cambodia, Thailand, Burma and China.

### Vietnam

ACIAR's program in Vietnam supports technical and agribusiness research to enhance smallholder incomes from selected areas of high-value agriculture, aquaculture and forestry. The program currently focuses on three geographic regions—the Mekong Delta, the south-central coast and north-western highlands—where poverty persists and where the agricultural natural resource base is vulnerable.

### Lao People's Democratic Republic (Laos)

Food security is still central to agricultural development in Laos, which is one of four countries involved in a new ACIAR initiative on safeguarding food security in rice-based farming systems. ACIAR's program aims to increase the productivity of these systems, working in cooperation with other international agricultural development centres. At the request of the Lao PDR Government, there is an increased emphasis in southern Laos.

### Cambodia

Around 80 per cent of Cambodia's people rely on agriculture for their livelihoods. ACIAR supports research to lift the productivity of rice-based farming systems, increase agricultural diversification (particularly into non-rice field and horticultural crops, ruminant livestock and fisheries) and adapt to climate change at the farm scale.

### Thailand

ACIAR's program in Thailand has seen increasing co-investment in the partnership. ACIAR is investing in implementation of the results of earlier projects (with relevance to the poorest farming communities), biosecurity systems implementation, and regional partnering with Laos, Cambodia and Vietnam on Mekong fisheries management.

### Myanmar

ACIAR's aim in Myanmar is to work predominantly through international organisations and NGOs (including Australian-accredited organisations) that have a longstanding presence on the ground. The program has a focus on the legume-based farming systems in the central dry zone, and is working to establish a new program to improve productivity in the crop, fisheries and livestock sectors.

### China

ACIAR's program in China over the past decade has shifted its focus towards the western region, with emphasis on the following themes: improved water-use efficiency; improved land and water use; wheat breeding for dryland conditions and conservation farming systems; and improved integrated crop-livestock systems in favourable areas of Tibet Autonomous Region and rangelands of north-western China.

## Vietnam

### Highlights

- More sustainable and profitable crop and livestock production systems developed for sandy soils of south central Vietnam.
- Brighter future predicted for village-based lobster farming.
- New processing methods and products using veneers derived from plantation-grown eucalypts and acacias.

### Country overview

ACIAR's program in Vietnam supports technical and agribusiness research to enhance smallholder incomes from selected areas of high-value agriculture, aquaculture and forestry. In recent years the program has focused on three geographic regions—the Mekong Delta, the south-central coast and north-western highlands—where poverty has persisted and where there are threats to sustaining the agricultural natural resource base. These are also opportunity to employ Australian agricultural technical skills to assist in development.



Vietnam will continue to have a comparatively high percentage of rural population over the next decade or two, and issues of rural poverty and structural adjustment remain at the top of the policy agenda. Productivity on a land or labour basis is still low. The small scale of production on individual farms, fragmented land holdings and increases in input costs are significant problems, and also conceal huge potential. Ethnic minority groups and those in remote regions are particularly affected and the Vietnamese Government is providing greater focus on programs to assist these groups.

ACIAR's projects link with programs of AusAID and other donors working in these regions. These projects are increasingly multidisciplinary, and there is a growing focus on linking central research institutes with provincially based research and extension departments. ACIAR acknowledges the following key areas as medium-term research priorities: securing rice-based farming systems in the Mekong Delta through resilience to the negative impacts of climate change; optimising resource management for profitable and sustainable agricultural production in south-central coastal Vietnam; poverty reduction through market engagement for smallholder farmers in the northern and north-western highlands; development of high-value plantation forestry products in the Mekong Delta, central coast and north-western regions; and developing higher-value aquaculture industries in the northern, central and southern Vietnam.

## Research achievements

### CAPF outcome

Farmers accessing new technologies	1,037
Number of women farmers	472
Increased crop value (projects active in FY12–13)	\$375,000

There is a strong global demand for tropical lobsters (primarily driven by Chinese markets) which has pushed up the price and made lobster farming an attractive aquaculture industry. Vietnam has a successful **village-based lobster farming** industry, but there are some problems with disease. A project is addressing these problems and also adapting lobster farming technologies developed in Vietnam for adoption in Indonesia to establish a village-based industry. Project tasks include modification of technologies and/or definition of regulatory frameworks to ensure that problems currently faced by the Vietnam industry are avoided in Indonesia.

Acacias and eucalypts from natural forests in Australia have long been used for the production of specialty veneers, but the use of plantation acacias and eucalypts for this purpose is in its infancy. ACIAR is funding a project to test and develop **new processing methods and products from veneer**. A group of Vietnamese researchers along with industry representatives travelled to Australia to undertake training in veneer quality control protocols through a grant from the Crawford Fund. A desktop study prepared in Vietnamese has described to forest growers the economic impact of acacia and eucalypt growing for various applications, and provided an overview on wood processing companies in Vietnam with special emphasis on veneer-based products.

The south-central coastal region of Vietnam is characterised by sandy infertile soils and a long dry season (6–9 months). The population struggles to make a livelihood in these conditions. But an ACIAR project is attempting to introduce promising resource management practices for **sustainable and profitable crop and livestock production** systems that best suit local conditions and enable improved market engagement. Focus crops are cashew and/or mango intercropped with legumes such as peanut and soybean or non-legumes such as cassava, growing on aeolian and granitic sands, as well as vegetable production systems (onion, garlic, tomato) on coastal sands. The project is also determining the feasibility of a beef cattle enterprise integrated with forage and field crop production.

## Vietnam's plantation trees a win for the rural poor

In the north-west provinces of Vietnam, home to ethnic minorities such as the Hmong people, income opportunities are limited. In these mountainous areas the people farm steep slopes, planting maize and upland rice using practices that cause substantial loss of soil and sedimentation of reservoirs used for hydroelectricity production. In a search for alternatives to help enhance their livelihoods, ACIAR projects are seeking to introduce market-linked agroforestry systems.

In this region forestry has an important role to play in improving soils and reducing soil erosion. It also offers hope as a source of income, and acacias have proven to fit the bill. They provide opportunities even where soils are poor and eroded, but it is critical to choose the right tree species while developing sustainable management practices suited to the farmers.

Dr Sadanandan Nambiar, now a CSIRO Honorary Fellow in retirement, spearheaded some of the early ACIAR work on plantation forest suitability. He continues to have an involvement in the Vietnamese work, and is particularly committed to the use of forestry to reduce poverty. He contends that despite trees needing time to reach harvest a farmer can grow a small block of acacia trees and sell them off at different stages. The small low quality trees can be thinned out and sold for paper pulp to make some early money. Then the farmer can cultivate the higher quality trees remaining, thus increasing the plantations value considerably. There is a 10-fold difference in income between selling crooked twisted trees for chipping compared with well-managed, tall straight trees for sawing.

Today in Vietnam acacia trees cover an estimate 2% of the country's land surface. Plantations—about half of them cultivated by smallholder farmers—supply about 10 million green tonnes of wood a year to saw and woodchip mills. In turn the mills provide employment and business opportunities that further sustain rural development.



Agroforestry systems, utilising Australian acacia species, are helping poor farmers in Vietnam's north western provinces look to a better future.

# Lao People's Democratic Republic (Laos)

## Highlights

- Advances in village pig production will contribute to community wellbeing.
- Developing and refining agroforestry systems involving teak and paper mulberry leading to more productive silviculture.

## Country overview

ACIAR research aims to increase the productivity of Lao rice-based farming systems, and to foster cooperation with CGIAR centres to fast-track development of new crop varieties through advanced informatics and biotechnology. ACIAR's program in Laos is directly aligned with the rural development initiative, as outlined in the Australia-Lao Development Cooperation Strategy 2009–15. The country is one of four involved in a new initiative to safeguard food security in rice-based farming systems.

ACIAR is increasing its emphasis in southern Laos, funding research to improve food security from rice-based and other farming systems in both lowland and upland districts. There is also technical and agribusiness research collaboration to understand and develop domestic and export market opportunities for rice, cattle and other agricultural products.

ACIAR is partnering with programs of the International Fund for Agricultural Development, the Asian Development Bank and the World Bank to underpin biophysical, socioeconomic and agribusiness development for southern Laos. Its program priorities in the medium term are: market-driven alternatives to shifting cultivation in upland regions; improved food security and profitability of farming systems through diversification; rice and other field crops; horticulture; agricultural water resource management; forestry and wood manufacturing industries; livestock and fisheries; agribusiness, marketing, policy and social issues; and adapting Lao farming systems to climate change.

## Research achievements

### CAPF outcome

Farmers accessing new technologies	5,586
Number of women farmers	-
Increased crop value (projects active in FY12-13)	\$18,339,900*

- denotes figures not available

\* \$18,309,900 shared between Laos and Cambodia

Pigs are an integral part of farming enterprises in Laos and work is underway to **increase the potential for village-pig production** to become a better financial contributor to community wellbeing. This project is addressing the limitations of current village-based systems in terms of feeding regimes and reproductive management for locally bred pigs. It is part of a multi-stakeholder alliance to scale out research results on pig production, health and marketing systems.

The agricultural sector of Lao PDR is undergoing rapid change, particularly in relation to increasing private sector investment, and this is placing **new demands on agricultural extension**. The Lao Government has responded by creating a new Department of Agriculture Extension and Cooperatives (DAEC) to give districts and provinces support in providing effective extension services. An ACIAR project has led to a partnership between DAEC and James Cook University to determine the best means of strengthening and implementing extension.

There is a major opportunity to enhancing incomes of farmers living in the upland regions of northern Laos by improving silviculture. Focusing on Luang Prabang province, a project is helping to **improve silvicultural management of teak plantations**, develop and refine agroforestry systems involving teak and paper mulberry, and implement village-based genetic improvement of teak. Farmer participants have given their strong support to thinning experiments and agroforestry trials, and this is reflected in continued interest of farmers to join the project. Teak grafting experiments have been successful and have led to propagation by grafting of elite trees selected in local plantations.

# Cambodia

## Highlights

- New elite lines of rice identified that are more suited to Cambodia's aerobic and lowland ecosystems.
- Good prospects for development of a profitable beef production sector in north-western Cambodia.

## Country overview

Agriculture remains a significant part of the Cambodian economy, with about 80% of Cambodia's population relying on agriculture for their livelihoods. The predominance of rice-based farming systems on infertile, poorly structured soils means that Cambodia has rather low agricultural productivity on both a labour and a land area basis.

ACIAR's strategy is to support rural development in line with Cambodia's National Strategic Development Plan 2006–2013 and its priorities for poverty reduction. ACIAR's program in Cambodia has three thrusts: to support research to increase and secure the productivity of rice-based farming systems; to support applied research and development that underpins agricultural diversification, particularly into non-rice field and horticultural crops and ruminant livestock; and to recognise the vulnerability of Cambodian agriculture, particularly rainfed cropping, to climate variability and change.

ACIAR is co-funding with AusAID the research and extension component of a 5-year, \$42 million program, the Cambodia Agricultural Value-chain (CAVAC) program, which commenced in early 2009. This component integrates with other CAVAC components to address agribusiness development, water management and irrigation, and the furthering of a business-enabling environment.

## Research achievements

### CAPF outcome

Farmers accessing new technologies	10,872
Number of women farmers	3,487
Increased crop value (projects active in FY12–13)	\$18,339,000

\*\$18,309,900 shared between Laos and Cambodia

IRRI is involved in ongoing research to identify **elite rice germplasm** for the aerobic and lowland ecosystems in Cambodia. Continuous field evaluation under aerobic soil conditions at three key sites through the wet and dry seasons of 2011 and 2012 revealed a number of lines that out-yield the local reference. These lines matured in 100–110 days under direct-seeded conditions. They can be cultivated in the wet season in rainfed uplands, and in rainfed lowlands where drought occurs often. They can also be grown in the dry season with limited irrigation.

An ACIAR project is assisting the development of a **profitable beef production** sector in north-western Cambodia, making use of an ample supply of crop residues from maize cultivation and testing the potential for growing forages. Early studies have determined that the current farming system, which relies on burning of crop residues and deep ploughing, is not suited to the climate, soil or landscape, and appears to be out of synchrony with the seasonal rainfall pattern. New cropping systems are being tested for their ability to make more efficient use of rainfall through altered planting dates, preservation of crop residues and rotations to restore soil fertility.

Mangoes are now Cambodia's most important fruit crop after coconuts. ACIAR has funded a 9-month scoping study to identify specific issues along the **mango production and supply chain** for future research and development. The research team undertook an extensive survey of 100 farmers across the mango-producing provinces of Kandal, Kompong Speu, Kompong Cham, Battambang and Siem Reap. Their major areas of investigation were production practices, harvest and postharvest handling practices, prospects for domestic and export growth, and the country's capacity for research, development and extension.

# Thailand

## Highlights

- Thai scientists trained in Australia bring high-level skills to new molecular diagnostic laboratory in Thailand.
- Fisheries in the Lower Mekong Basin to benefit from project to establish the multiple values of regional fish resources.

## Country overview

In line with the Memorandum of Understanding signed in July 2007, ACIAR continues to foster opportunities for partnering with Thailand on a regional basis. As Thailand's economic and research capacities continue to increase, the ACIAR–Thai relationship has shifted towards co-investment in the partnership. In this context the new thrust is to improve the synergy and communication of regional research programs, with particular attention to Cambodia, Laos and Vietnam. ACIAR's current program focuses on three issues: implementation of the results of earlier projects, with relevance to the poorest farming communities; biosecurity systems implementation; and regional partnering with Laos and Cambodia on sustainable fisheries and basin fisheries management.

Australia and Thailand are active participants in a range of International Agricultural Research Centres (IARCs) and other multilateral research and assistance agencies, a number of which are located in Thailand. This will continue to provide a suitable platform to address wider regional research initiatives with both Australian and Thai involvement.

## Research achievements

CAPF outcome

Farmers accessing new technologies	-
Number of women farmers	-
Increased crop value (projects active in FY12-13)	-

- denotes figures not available as projects have a regional emphasis with Thailand as a partner

There is increasing pressure for countries to comply with agreed sanitary and phytosanitary standards (SPS) to satisfy trading partners and give access to overseas markets. Such SPS conditions apply equally to developed and developing countries; however the latter often lack the expertise, infrastructure and organisational processes required to meet such standards. With this in mind Thai and Australian scientists have together established a **molecular diagnostic laboratory** in Thailand, to serve that country and its neighbours. Staff from the Thai laboratory came to Australia to learn up-to-date molecular

techniques and work practices. The focus of the training was on trade-sensitive pest groups such as citrus canker, Huanglongbing (citrus greening), viruses, nematodes, fruitfly and seed-borne bacterial pathogens. On their return home the high level of skill they attained was evident in their ability to routinely perform molecular techniques in their own lab, to train their own staff in molecular techniques and to develop diagnostic protocols and optimise existing tests for their own purposes.

Thailand is one of four Mekong countries assessing **economic and welfare values of fish** in the Lower Mekong Basin. The project aims to quantify the multiple values of fish resources then analyse and interpret findings that can then be conveyed to national decision-makers, development agencies and local actors. Such information will provide essential guidance for future fisheries, agriculture and rural development programs aimed at improving the welfare of those who rely on the Mekong for their livelihoods.

In another regional initiative the Network of Aquaculture Centres in Asia Pacific, based in Thailand, is the ACIAR-commissioned organisation for a project to develop **culture-based fisheries** in Lao PDR and Cambodia.

## Myanmar

### Highlights

- Project launched to improve livelihoods of small-scale livestock producers.
- IRRI-based research will advance the rice harvest and provide options for post-rice crops for farmers in the Ayeyarwady Delta.
- Scientists gather information to characterise and improve the fisheries sector in the Ayeyarwady Delta.

### Country overview

Australia is providing support to activities in Myanmar that target immediate needs in the health, education, and livelihoods and food security sectors. The focus is on strengthening the capacity of people and organisations in these sectors, as well as supporting vulnerable populations across Myanmar and on the borders with Thailand and Bangladesh. ACIAR's program is fully aligned with the above approach of the

Australian Government, targeting vulnerable populations to improve nutrition and food security.

ACIAR's aim is to continue to work predominantly through international organisations and NGOs, including Australian-accredited organisations. Working with agencies with a longstanding presence on the ground has proved an effective and accountable means of delivering assistance. Therefore ACIAR has developed a small number of multilateral collaborative research projects that impact either directly through tangible improvements to the welfare of communities or indirectly through increases in farmers' cash incomes. Projects are based in similar agroecological zones to those in Australia—the central dry zone and the tropical lowlands. In June 2013 ACIAR signed a Memorandum of Understanding to implement a major research project, the animal health component of a \$12 million multidisciplinary program.

## Research achievements

### CAPF outcome

Farmers accessing new technologies	-
Number of women farmers	-
Increased crop value (projects active in FY12–13)	-

- denotes figures not available as full program was only initiated in June 2013

A new project that seeks to **improve livelihoods of small-scale livestock producers** in Myanmar's central dry zone commenced. It will focus on enhancing management, nutrition and health of small ruminants, indigenous cattle and village poultry. Sound data on livestock management, animal productivity and disease status has been lacking to date, and is crucial for designing successful interventions; the data gathered will be invaluable to scientists, development project operatives, government planners and policy makers.

A newly commenced project led by IRRI is studying how adoption of new rice varieties and alternative crop management options can **advance the rice harvest**, provide options for post-rice crops and lead to greater diversification for smallholder farmers in the Ayeyarwady Delta. The project is conducting research on cropping options for the Delta and also supporting the introduction of options to reduce postharvest losses.

Fisheries development in Myanmar faces three constraints: the lack of a comprehensive information base on fisheries; the lack of proven management approaches and technologies; and the limited technical capacity to implement fisheries projects. A new project led by WorldFish will seek to **characterise and improve the fisheries sector** in the Ayeyarwady Delta and to assess the scope for fisheries development in the central dry zone.

## Myanmar program enters new era

The smallholder farmers and rural poor are set to benefit as ACIAR moves to a greater level of cooperation in Myanmar, which is undergoing a period of ambitious reform unprecedented in its recent history.

In June 2013 ACIAR's Principal Regional Coordinator for Mekong countries and China, Dr Gamini Keerthasinghe, signed a Memorandum of Understanding to implement a major research project. While he had been to many signing ceremonies signifying the commencement of projects across the world, he remarked that none other had held the impact he felt on this occasion.

'ACIAR's first project in Myanmar (then Burma) commenced a decade ago. Our aid program aims to reduce poverty and food insecurity and help the country transition to a stable, more democratic and more prosperous member of the region and the international community. This recent signing really is the first time we've had the opportunity to work on a whole new level with our peers in Myanmar,' said Dr Keerthasinghe.

The Memorandum of Understanding just signed was for the animal health component of a \$12 million multidisciplinary program. This program was developed in close partnership with AusAID and covers five components: crops (legumes and rice), fisheries and livestock, and socioeconomics/extension. Capacity building will be an integral component of the program covering all the sectors. It involves a close collaboration with international research institutes, UN agencies, other donor nations, NGOs and national counterparts on this program.



ACIAR research in Myanmar will deliver benefits to the country's poor farmers.

# China

## Highlights

- Significant water savings possible with permanent raised bed cropping in the Hexi corridor of north-western China.
- Strategic application of nitrogen fertilisers can improve environmental quality and reduce nitrous oxide (greenhouse gas) emissions.
- Plant health manual translated into Mandarin.

## Country overview

The ACIAR program in China emphasises the country's north-western region and the Tibet Autonomous Region. In the north-west the program focuses on the sustainability aspects of agricultural production—expressed largely in policy and technical projects on better management of land and water resources. In Tibet Autonomous Region there is an ongoing related, but broader, emphasis on maintaining efforts to improve agricultural productivity. Both regions confront significant environmental challenges, which need to be addressed through strategies that also foster income growth for smallholder farmers.

In view of the substantial human and financial resources now available within the Chinese national agricultural research system, and the strong mutual benefits to Australia, ACIAR now requires that all new partnerships involve significant co-investment by the Chinese partners.

The priorities for ACIAR's China program in the medium term are: selection of technologies for improved water-use efficiency, with an emphasis on dryland agriculture; development of policies and institutions for improved land and water use and associated climate-change influences; wheat breeding for dryland conditions and conservation farming systems; integrated crop–livestock systems in favourable areas of Tibet Autonomous Region and rangelands of north-western China.

## Research achievements

### CAPF outcome

Farmers accessing new technologies	7,000
Number of women farmers	-
Increased crop value (projects active in FY12-13)	\$3,800,000

- denotes figures not available

A 4-year project in the Hexi corridor in north-western China sought to determine whether conservation agriculture (CA) using permanent raised bed (PRB) technology could **save water without yield penalties**. The research team demonstration trials revealed that although advances in on-farm comparative yield were not significant, PRB adoption had significant economic, social and environmental benefits suitable for extension across the Hexi corridor. On-farm data suggests a 2% annual increase of PRB adoption over 5 years would produce accumulated water savings of 2,520 gigalitres.

Improving the management of **water and nitrogen fertiliser** can help increase farm incomes, improve environmental quality and reduce nitrous oxide emissions from agriculture. A project studied systems in northern China growing irrigated maize, wheat and intensive vegetable farms in the western Yellow River basin. The project demonstrated that 'efficiency enhanced nitrogen fertilisers' effectively reduced nitrogen losses and greenhouse gas (nitrous oxide) emissions.



## Promoting plant health

It is important to all of ACIAR's partner countries to know what plant and animal health problems occur in their territories. To this end ACIAR has produced a manual *Guidelines for surveillance for plant pests in Asia and the Pacific* to assist plant health scientists in devising surveillance programs and to transmit specimens to the laboratory for identification and preservation. Countries can then begin to share results of the surveys with each other and widen cooperation in plant health research.

The manual was originally produced in English. A version has now been released in Mandarin Chinese. As a mark of the significance of the knowledge it contains the manual had already been translated into Indonesian, Thai and Vietnamese.



Publication cover:  
Guidelines for surveillance  
for plant pests in Asia  
and the Pacific [Mandarin  
translation]

## South and West Asia

The south and west Asia region includes India, Bangladesh, Pakistan, Nepal, Afghanistan, Iraq and Bhutan.

### India

Collaboration with India includes projects on better water management to improve livelihoods in the more marginal rain-fed areas of central India, and also to develop policy to assist India with the implications of its transition from a highly regulated economy to a more open market economy.

### Bangladesh

ACIAR's program in Bangladesh focuses on constraints to broadacre crop production (especially the rice–wheat system) and the potential for adopting legumes into cropping systems. The program addresses issues facing those areas particularly impacted by seasonal climate variability and climate change.

### Pakistan

ACIAR's long-term focus in Pakistan is on linkages within the horticulture and dairy sectors, along with natural resources management issues such as efficient water use, salinity management and tillage options for irrigated cereal cropping.

### Nepal

The focus of ACIAR's collaboration with Nepal is to address poor farm productivity and help build capacity in agricultural institutions to improve the livelihoods of the rural poor.

### Afghanistan

ACIAR's collaboration with Afghanistan provides support to increase wheat and maize production. Activities include on-farm participatory testing of imported germplasm to identify better-adapted improved cultivars, and undertaking local multiplication and distribution of selected cultivars.

### Iraq

ACIAR-managed and AusAID-funded projects in Iraq seek to facilitate the development of modern and sustainable agricultural production and marketing systems. A two-year scoping project focused on understanding salinisation processes and water management.

### Bhutan

In Bhutan, ACIAR has already contributed to develop Newcastle disease vaccines for village chickens, and other projects have helped manage fruit fly damage and footrot in ruminants. A major initiative to improve citrus production through pest and disease management is now underway.

## India

### Highlights

- Study in Andhra Pradesh leads to the formation of village committees that encourage farmers to take up better water-use practices which lift productivity and incomes.
- Introduction of stay-green characteristics into sorghum lines enhances both the quality and the quantity of post-rainy sorghum.
- Selection for favourable traits in wheat has led to the advancement of new lines of rust resistance.

### Country overview

Australia and India share many of the same agricultural and natural resource management problems, as well as key commodity crops like wheat, resulting in researchable issues of mutual relevance to both countries. ACIAR has supported a program of collaborative agricultural research with India since 1983. Most ACIAR programs in India consist of bilateral projects, in which Australian research organisations collaborate with one or more Indian research institutions (e.g. the Indian Council of Agricultural Research (ICAR)), state agricultural universities, independent research organisations and NGOs. Multilateral programs are delivered in conjunction with the five IARCs that are active in India.

ACIAR's strategy for 2011–16 focuses on joint partnerships with increasing co-investment by ICAR and other partners. The large and well-developed national agricultural research system led by ICAR is a cornerstone of ACIAR's program, which emphasises collaboration in four areas, or clusters, of Australian and Indian expertise. Research themes reflect strong common interests and point to areas with potential for positive impacts at both field and national levels in both countries.

The four major clusters focus on: research to improve agricultural water management, particularly in rainfed areas; sustainable intensification of zero-tillage cropping systems that incorporate pulses; faster breeding of improved varieties of wheat and other crops to target (in the case of wheat) product quality aligned with demands for better quality chapattis, bread and biscuits from India's 200-million-strong middle class; and assisting policy development in relation to agricultural adjustment, water management and climate change.

## Research achievements

### CAPF outcome

Farmers accessing new technologies	1,740
Number of women farmers	48
Increased crop value (projects active in FY12–13)	\$3,000,000

India has invested substantially in **watershed development (WSD) programs** to raise productivity and incomes in rainfed areas. However, experience has shown that most farmers/villagers show little enthusiasm for adopting the proposed WSD technologies and program failures are common. ACIAR has supported a project, focused on Andhra Pradesh, to help understand and deal with the weaknesses in delivery and learn how to directly improve the outcomes. The findings from the project have been well received by the Department of Rural Development in Andhra Pradesh and led to the creation of separate Watershed Committees at the village level and greater attention to the involvement of relevant NGOs.

Scientists have successfully introduced **stay-green characteristics into sorghum** lines, enhancing both the quality and the quantity of grain/fodder of post-rainy sorghum that has to grow in water-stressed conditions. The team recognised a range of different stress patterns within the sub-block trials, thereby requiring specific breeding for precise drought-adaptive traits tailored to different areas for optimum productivity.

The process of genetic marker assisted selection for **favourable traits in wheat** has led to the advancement of new lines of rust resistance. The most advanced lines are now being evaluated in regional and national yield trials. The new varieties with significantly enhanced rust resistance and yield have the prospect of lifting productivity at local, regional and even national levels.

## Giving women on the eastern Indo Gangetic Plains better water access

On the eastern Indo Gangetic Plains (IGP) in northern India 300 million people live well below the poverty line—in a climate that seriously constrains their chances to earn an income for the basics of life. ACIAR is sponsoring research involving an Indo-Australian partnership to help lift them out of dire poverty. The new research will particularly target women-headed households (about 50% of those in the region).

For four months of the year, heavy rains fall and frequently produce vast floods. The remaining eight months are dry. Rice and wheat are the two predominant crops, the former planted in the wet and the latter in the dry. Yields for both are typically low due to poor varieties grown, erratic weather and lack of investment in inputs such as fertiliser. Most farmers do not use irrigation and have no way to control their water supply. About half the locals do not own any land, so their incentives and opportunities are severely limited. These people rely heavily on fishing from local ponds and gathering free-growing nuts and fruit.

When ACIAR Land and Water Resources Manager Dr Evan Christen visited the region in mid-2013 he met with a mix of people, from villagers to government representatives. He wanted to appraise the current situation and to discover what options would help to improve the situation. Some of the issues he encountered were the historic ownership of land and water, the caste system, water use and distribution, and the roles of women.

He was encouraged by a meeting with an elderly woman farmer who was growing melons, using a water pump provided for her by an NGO. She had done sufficiently well to have replaced the cumbersome treadle pump with a mechanised one. In other instances he met women growing tomatoes and selling sauce from their produce at the local markets.



ACIAR research is partnering with NGOs to help families work together to increase production, and in doing so empowering women.

# Bangladesh

## Highlights

- Farmers starting to realise the benefits of relay cropping, where two crops share the same field for a short time.
- Minimum tillage planters now produced in Bangladesh for local use and worldwide export.

## Country overview

ACIAR's focus in Bangladesh has been on food grain crops, and its strategy addresses one of the country's key development challenges—food availability within the context of increasing climate-change vulnerability. Research activities are strongly related to agricultural food production. Bangladesh also faces the problem of inadequate nutrition, which is just not limited to food availability. It is derived from multiple factors, for example gendered consumption practices, international market variations and effectiveness of government structures.

With re-emerging concerns about Bangladesh's ability to maintain food security in the light of its high vulnerability to the impacts of climate change, ACIAR's emphasis is shifting towards increasing the productivity of rice as the main staple food. Low-lying areas and rainfed cropping systems in Bangladesh are particularly negatively impacted by the effects of seasonal climate variability and change. Consequently, Bangladesh is one of four partner countries involved in ACIAR's climate-change adaptation initiative. The major research thrusts are therefore intensification of cereal crops, diversification of rice-based systems, adaptation to climate change and alleviation of policy constraints.

## Research achievements

### CAPF outcome

Farmers accessing new technologies	5,250
Number of women farmers	4,725
Increased crop value (projects active in FY12-13)	\$90,000

Minimum tillage planters for conservation agriculture are now being produced in Bangladesh for local use and for export around the world. While many are realising the benefits of conservation agriculture, some of the biggest beneficiaries are those who have **become machinery contractors**. It has meant a transformation from poverty to financial security.

Another innovation funded by ACIAR is a mini mill designed to process **small quantities of pulse seeds**. Many farmers were reluctant to grow lentils and other nutritious pulses because the big mill did not allow for dehussing small quantities. Now the ACIAR-developed mill enables dehussing of 5 kg of seeds.

## Finger on the pulse

In Bangladesh farmers are starting to realise the benefits of relay cropping, where two crops share the same field for a short time. The main strategy is to grow a pulse crop in the fallow period between monsoon rice (harvested in November) and dry-season rice (usually planted in February). The idea is to establish the second crop in the two weeks prior to the maturation of the first crop, instead of waiting to plant once the first crop is harvested. By gaining these two weeks of growth, and growing a suitable short-duration variety, it is hoped pulses such as lentils will fit nicely in the short gap between harvest and second planting.

The process has been introduced into ACIAR's Bangladesh pulses project as one way of intensifying the productivity of rice-based cropping systems in 10 districts in western Bangladesh. With such a small planting 'window', project scientists are seeking to identify short-season varieties of early-maturing pea or lentil that fit with this timing. They are also exploring various agronomic practices that could enlarge the window of planting opportunity.

The project is running trials with local farmers on their land, using different pulse crops, varieties and growing practices. The researchers, farmers and others get together on field days to talk about the progress. Program Manager Eric Huttner describes one farmer he met during a visit to the trials early in 2013. The farmer was successfully growing a crop of lentils that he had sown in his monsoon rice field a few weeks before harvesting his rice. He had introduced conservation agriculture methods, where digging is minimal and stubble from the previous crop is left on the soil as a mulch—thus reducing evaporation and improving the soil composition. The crop was looking healthy, and the farmer was looking forward to harvest time.

Growing pulses in this way has multiple benefits for the farmer. Pulses provide a good source of protein nutrition for the family, and also provide opportunities to generate income from an extra crop. The cropping practices also benefit the farming system through improvements to the soil, while providing a source of fodder for livestock. The project will continue trials for another three years, working with farmers to test different crops, varieties and growing practices and thus compile recommendations of what will work best for them.



Utilising small two wheel tractors for minimum tillage and conservation agriculture is helping poor farmers and creating export opportunities.

# Pakistan

## Highlights

- New research is seeking solutions to growing summer vegetables under conditions of excessive heat.
- Trials of the FMI Rocket Seeder confirm it as a major breakthrough in no-till wheat seed planting.
- Grower guide helps mango producers deal with the scourge of Mango Sudden Death Syndrome in their orchards.

## Country overview

Pakistan is a strategically important country where the development challenges are considerable. One challenge is the increasing pressure on availability of water resources for irrigation, due to competing demands for urban and industrial uses. Often the water available is saline, largely because of poor irrigation management practices combined with poor drainage and soil management. High-value horticultural crops such as citrus and mangoes for both domestic and export markets are an important source of farm income; however, crop management practices are often suboptimal and losses along the value chain are high. Cereal productivity is lower than in equivalent environments elsewhere in south Asia, and there is also unrealised potential for smallholder diversification. Pakistan is one of the world's largest milk producers, with slightly less than half of that production from dairy cattle. Unit animal production is very low, although genetic potential is quite good.

ACIAR's strategy for Pakistan is to work closely with the Pakistan Government, AusAID, other donor partners, NGOs and the Pakistani private sector to provide research, development and technical capacity building, technical support and carefully targeted interventions to underpin Pakistan development programs. Poverty reduction, linking smallholders to markets and gender equality are major issues for development programs in Pakistan, and are a key consideration for the ACIAR strategy. Australia is well placed to assist Pakistan in addressing irrigation, drainage and salinity management in major cropping systems, and this is an important focus of the program.

ACIAR's work in Pakistan revolves around the Australia–Pakistan Agriculture Sector Linkages Program (ASLP), with the program initially focused on the mango, citrus and dairy sectors. As the work progresses, there will be an increasing focus on gaining benefits for smallholder and poor farmers, benefits for other disadvantaged groups, greater involvement of women, dissemination of results and maximising project impacts.

## Research achievements

### CAPF outcome

Farmers accessing new technologies	25,839
Number of women farmers	1,799
Increased crop value (projects active in FY12–13)	\$39,805,000

Vegetable growing is a popular enterprise, providing dietary variety and a potential source of income, but high temperatures can reduce yield and quality. A newly commissioned project is seeking new options to **successfully grow summer vegetables**—with a special emphasis on varieties of tomato and okra that are tolerant to heat stress. The project team will also evaluate the performance of indigenous and exotic cultivars under heat stress conditions, and their potential profitability in commercial farming.

The development of the **FMI Rocket Seeder**, based on a new principle of cutting loose rice residues only in the planting rows rather than lifting or manipulating the entire residue load as in the other seeders, represents a major breakthrough in wheat seed planting. The seeder is light-weight, compact, requires significantly less power and suits commonly available tractors. Widespread introduction would see less dust generated, lower costs of fertiliser (no loss of nutrients in straw by burning) and more economical land preparation, along with savings on water due to mulching. Because the seeder eliminates the need to burn rice stubble there is also less hazard to health from smoke and the widespread problems of air pollution.

The ASLP mango production project sought to establish clean nurseries, improve orchard husbandry, **detect and manage Mango Sudden Death Syndrome (MSDS)** and improve training and extension services. It made significant

advances in all four areas, but particular note was the identification of the main causal agent of MSDS. Based on the findings from the MSDS research, a guide was produced to help growers recognise the symptoms and know how to manage them. Demonstration sites were also set up to guide the growers with the different integrated disease management options currently available to stop or slow the establishment and spread of the disease.

## Nepal

### Highlights

- Research collaboration seeks to lift the productivity of community-based forestry systems in the Middle Hills of Nepal.
- A 4-year study will explore ways to improve the use of tanks and tank irrigation on the Terai plains of Nepal.

### Country overview

Agriculture in Nepal faces a set of numerous interdependent challenges – associated with degrading resources, underdeveloped agricultural institutions and policies, and lack of productive technologies – that limit the improvement of farm household livelihoods. The challenges take different shapes in the lowland Terai rice-wheat farming systems (an extension of the Ganges Plain of India) compared with the mixed crop-livestock-tree farming systems of the hill and mountain areas.

ACIAR's program in Nepal supports integration of soil, water, livestock and tree components of the farm system, and seeks to increase productivity of the respective components through adoption of appropriate technologies.

### Research achievements

CAPF outcome

Farmers accessing new technologies	-
Number of women farmers	-
Increased crop value (projects active in FY12–13)	-

- denotes figures not available as projects have only recently begun

Sixty-six per cent of Nepal's population lives off a combination of agriculture and forest products. But factors such as low productivity, sub-optimal management, limited marketing opportunities and inequitable centralised planning and service delivery prevent forestry systems from providing adequate livelihoods. A newly commissioned project in the Middle Hills of Nepal seeks to lift the capacity of **household-based agroforestry systems** and improve the functioning of community-based forestry systems. It is an opportunity to restore productivity to under-utilised agricultural land and give communities more equitable access to it. The project team will also help guide the creation of new markets for forest products.

In eastern India and the terai of Nepal tanks (small reservoirs) are still used for irrigation, livestock and domestic purposes, but fisheries are now emerging as their primary usage. A scoping study to assess constraints and opportunities for sustaining the **tank irrigation ecosystems** and smallholder livelihoods in India and Nepal has now concluded. The study found sufficient reason to embark on a much larger 4-year investigation that is now being developed in association with the International Water Management Institute (IWMI).

## Afghanistan

### Highlights

- Pistachios and other trees planted to restore vegetation to a large community-based catchment site.
- New research is introducing germplasm of wheat and maize from CIMMYT-Mexico, ICARDA and CIMMYT-Zimbabwe, searching particularly for drought-tolerant, rainfed varieties.

### Country overview

ACIAR's collaboration with Afghanistan started in 2002 and focuses support on wheat and maize production. Activity in Afghanistan continues through collaboration with CIMMYT and ICRISAT. The operating environment is complex as a result of poor security and political uncertainty, which limits access by Australian scientists and hinders donor capacity for long-term planning.



Principal objectives have been to import seed of suitable cultivars, establish on-farm participatory testing of imported germplasm for the identification of better adapted improved cultivars, and undertake local multiplication and distribution of selected cultivars. Particular attention has been paid to capacity building, improving rust resistance in wheat (with specific attention to the new stem rust race variant designated Ug99) and promoting improved crop management, together with provision of improved cultivars of both wheat and maize.

The country program has a new focus on crop and livestock intensification and better water management. The researchers will foster linkages between the improvement of wheat varieties and agronomy, the development of forages for small ruminants, and community-based watershed management.

## Research achievements

### CAPF outcome

Farmers accessing new technologies	1,200
Number of women farmers	400
Increased crop value (projects active in FY12–13)	\$23,062,000

In a project to improve integrated catchment management, one large community-based catchment site in village Saiaad, district Khulm located in Mazar Province is being rehabilitated. The process involves **replanting the edges of the terraces with pistachio trees**. To gain the requisite numbers of seedlings of pistachio, nurseries were developed. As a result more than 400 women received inputs, training and some honorarium from the project. In consultation with Department of Agriculture, Irrigation and Livestock and the local communities, development of the Saiaad site began by terracing and planting large numbers of pistachio seedlings, *Ailanthus* ('Tree of heaven'), *Asafoetida* and *Atriplex*. A solar powered water distribution system has been designed and installed at Saiaad site to irrigate the plants during the hot summer months, when temperature soars to 45°C.

Earlier ACIAR-AusAID funded research in Afghanistan tackled the problems of old, low-yielding, disease-susceptible varieties of wheat

and maize, limited availability of improved seeds and other inputs, and poor crop management. During the previous phase, eight wheat and four maize varieties were released in-country. A new phase is expanding these efforts and is introducing germplasm from CIMMYT-Mexico, ICARDA and CIMMYT-Zimbabwe among others. There is a particular **emphasis on drought-tolerant, rainfed varieties** and, in the case of wheat, varieties with resistance to wheat rust Ug99. Already two new wheat and two barley varieties have been released, and four crop production management experiments have been sown at five locations.

## Iraq

### Highlights

- Conservation cropping in Ninevah Governate has grown from 7,800 ha last season to 10,800 ha in 2012–13.

### Country overview

ACIAR-managed and AusAID-funded projects are supporting the recovery of Iraq's agricultural sector, a key priority for the Iraq Government. Pressures to abandon cereal–fallow rotations have exacerbated soil degradation and nutrient depletion, and now established cropping systems are in serious decline. Iraqi scientists have had limited access to international developments in the agricultural sector for over two decades.

The 2-million-hectare central-southern irrigated zone that produces vegetables, fruit and cereals is under increased pressure from salinity, long identified as a major threat to agriculture in Iraq. Political tensions with neighbouring countries since the early 1980s have hampered efforts to improve irrigation and drainage practices. Increasing levels of salinity in irrigation water from both the Euphrates and Tigris rivers due to changed water regimes have exacerbated the problems.

ACIAR's country program is designed to facilitate the development of modern and sustainable agricultural production and marketing systems in Iraq. It has two broad focuses: improved management of field crops and identification of improved salinity management in irrigated lands.

## Research achievements

### CAPF outcome

Farmers accessing new technologies	1,200
Number of women farmers	-
Increased crop value (projects active in FY12-13)	\$14,000,000

- denotes figures not available

Despite continuing unrest in Iraq and also in Syria (resulting in the lead organisation ICARDA relocating to other countries) extension of the **improved germplasm introduced into cropping systems** in the drylands of northern Iraq has continued apace. In the autumn of 2012, 29 zero-tillage demonstrations were established in farmer fields throughout the Ninevah governorate, and for the first time demonstrations were sown in Kirkuk, Salahaddin and Anbar. Three major spring field days held at Singar, Alqush and Telkief were attended by 100 farmers and 50 staff. A brief inventory of farmers in Ninevah indicated the area of conservation cropping has grown from 7,800 ha last season to 10,800 ha in 2012–13.

## Bhutan

### Highlights

- A breeding program has been initiated with the intention of producing a more cold-tolerant mandarin.
- SIMLESA is extending conservation agriculture techniques to over 100,000 farmers.

### Country overview

ACIAR's strategy is to work closely with the Bhutanese Government, local industry and other donors to ensure that planned activities are appropriate, consistent with the most recent government 5-year plan and complementary to the work of other donor agencies.

Citrus is Bhutan's largest horticultural export industry. A major initiative to improve citrus production through improved planting material and integrated crop management is being implemented. The work is focusing on crop irrigation management, integrated crop management of vegetables (particularly chilli) and development of contract farming crops (e.g. walnut, grapes, asparagus, pomegranate).

## Research achievements

### CAPF outcome

Farmers accessing new technologies	-
Number of women farmers	-
Increased crop value (projects active in FY12–13)	-

- denotes figures not available as project work has only recently begun

A survey of orchards has taken place in three citrus-growing areas in Bhutan, to identify and then collect the best selection of the **cultivated mandarin and other citrus** species. Local elders and orchard owners have been consulted about the characteristics and yield attributes of local citrus species. Fruit samples were evaluated for a range of properties. Project staff in Bhutan have established a citrus germplasm block containing three wild citrus species and local mandarin selections. A breeding program has been initiated and a highly cold tolerant evergreen citrus species has been crossed with a local mandarin with the intention of producing a more cold-tolerant cultivar.

# Africa

ACIAR is helping to address the problems encountered by smallholder farmers in many countries throughout the African continent.

## Highlights

- Sheep in East Cape Province double their liveweight after 10 weeks grazing on pasture with improved legumes.
- Study in the Limpopo Basin advocates research to improve water management for farming systems.
- Newcastle disease vaccination of local chickens helps villagers in Tanzania to build a more prosperous poultry industry.

## Regional overview

ACIAR's African research program is concentrated in three regions—eastern-central, southern and northern Africa – and consideration is being given to possible work in West Africa. ACIAR is delivering a major component of the Australian Government's enhanced engagement with Africa through the initiative 'Overseas Development Assistance— Food Security through Rural Development' (approximately A\$20 million over 4 years). Australian support (A\$100 million over 4 years), which is strongly focused on country needs, is aligned with the African Union's 'Comprehensive Africa Agriculture Development Programme' and Australia's expertise in rainfed mixed farming systems.

The research program in Africa has been developed through systematic consultations with African and Australian stakeholders, and includes new projects under the AIFSRC. Projects underway seek solutions to problems within aspects of sustainable agricultural development and food security.

Research areas can be grouped into three themes that focus on increased agricultural productivity and improved food security: sustainable management of natural resources; better production practices, which combine improved germplasm/breeds and management/husbandry; and better access to production inputs and markets.

# Research achievements

## CAPF outcome

Farmers accessing new technologies	25,556
Number of women farmers	3,044
Increased crop value (projects active in FY12–13)	-

- denotes too early in project cycles to make an assessment

Livestock (and wool) production in Eastern Cape Province in South Africa is based upon summer-growing perennial grasses of varying quality, which deteriorate rapidly in autumn and senesce in winter. A project has increased animal productivity by **developing legume pasture species** capable of growing in the cool months and alleviating the autumn/winter feed gap. A recent evaluation of animal performance showed a doubling of sheep live weight (from 24 to 50 kg) as a result of a 10-week period grazing on pasture improved through the introduction of appropriate legumes, while the control group lost 2 kg. The sheep on the legumes for 10 weeks also cut an extra 1 kg of wool per head than the control group – considered an outstanding result.

In recent years governments and NGOs working in countries of eastern Africa have begun to promote the **enhancement of tree cover on agricultural land** as a cheap but effective way of improving soils and lifting agricultural productivity. An ACIAR project is contributing to this by helping rural people, initially in Ethiopia and Rwanda then later in Uganda and Burundi, to introduce trees into their farming systems. The project is shaping up as an effective exercise in regional cooperation to deliver outcomes for farmers in the four countries.

Egypt is dependent on agriculture, which contributes 13% of GDP and employs about half of its labour force, but improvements in productivity are needed. A project aims to **improve farm household livelihoods**, initially in eight villages in the Meet Yazid irrigation area of the Nile Delta. The project is conducting on-farm cropping trials (including with Berseem clover) and quantitative monitoring of crops and livestock, working directly with women and men farmers.

A scoping activity conducted in the Limpopo Basin in Mozambique, South Africa and Zimbabwe has assessed current practices and promising options for research and implementation – involving rainwater harvesting and adaptive, local-scale **water resource management**. The study recommended targeted financial support to kick-start research covering the spectrum of water management, including water governance, water infrastructure, access and markets.

## Chickens changing the lives of villagers in Tanzania

For the past 25 years, ACIAR and AusAID have supported the development and delivery of a village-friendly vaccine for Newcastle disease that doesn't need really strict refrigeration. For the poultry farmers, this has meant that instead of their chickens dying every year, vaccinated flocks are now not only surviving, but breeding, turning the people's lives around.

In July last year ACIAR's Dr Wendy Henderson had the opportunity to witness firsthand the impact of an ACIAR-funded vaccine against Newcastle disease in chickens when she travelled to Tanzania. Dr Henderson described the impact of this vaccine on the local villagers as extraordinary. One farmer she met was Mrs Beatrice, who happily explained that the chickens' survival has dramatically improved the health of her village's children, through eating the nutritious eggs and meat.

She also met Mr Madai, an entrepreneurial farmer who had formed a co-operative with fellow farmers to collectively sell hundreds of eggs each week. The resultant income provides these people with opportunities to buy food, medication, and schooling for their children. Keeping chickens has also increased the farmers' resilience by providing a quick-sale option when times are hard.

One of the things that struck her most was the empowerment of the African women, who are usually the ones who own the chickens (often their only asset). They are now able to successfully rear their flocks, to make choices about their family's food and education, and even to buy substantial assets like goats and cows with the money they make selling their chickens.

The Australian International Food Security Research Centre (AIFSRC) within ACIAR is building on the vaccine research's success. It is funding a study looking at how the practices of keeping poultry and growing crops can be integrated to benefit each other. The research aims to sustainably improve production of both chickens and crops, to understand human nutritional benefits of eating poultry products and to improve market linkages for smallholder farmers.



Past ACIAR and AusAID work has disseminated vaccines against Newcastle Disease, allowing smallholder producers to grow large flocks of chickens, where once they kept only a handful of birds.

## In the National Interest

Research that also benefits Australia

### Overview

ACIAR's primary role and mission are to help developing countries to reduce poverty and achieve sustainable development, through international agriculture research partnerships. Projects funded by the Centre address problems of interest and benefit to developing countries and Australia, through fields in which Australia, or international agricultural research centres, have comparative advantage. ACIAR has from the outset focused on supporting collaborative research where Australian scientists and scientists in developing-country partners work together on mutual problems in agriculture, forestry and fisheries. The intersection of mutual problems and Australia's comparative advantage does result in some projects delivering benefits to partner countries and Australia. Many of these benefits relate to capacity building, creating opportunities for Australian scientists.

Independent analyses have shown that, as well as returns to partner countries from the research being very high, Australia's benefit from the research is also substantial.

### Research achievements

Australia continues to benefit from the studies of critical trans-boundary diseases such as highly pathogenic **avian influenza**, **classical swine fever** and others that occur in neighbouring countries. Current research is helping to strengthen capacity for effective disease control in eastern Indonesia and eastern Australia. Researchers are identifying livestock trade patterns that are a high risk for disease transmission and supporting the formulation and pilot implementation of policy designed to restrict, manage and/or monitor these livestock movements.

Ug99 is a strain of **wheat fungus**, black stem rust, and is considered by some to be the biggest threat to wheat production worldwide. Wheat varieties, including those in Australia, rely on only a few rust-resistance genes to protect them from different strains of rust. ACIAR is working with CSIRO, the Australian Grains Research and Development Corporation (GRDC) and other research partners

to investigate genes, and identify DN markers for those genes, that are effective against Ug99. The team, including an Indian born scientist who received ACIAR support during his PhD have isolated one disease resistance gene, Sr33, that protects wheat crops from all stem rust disease races including Ug99.

**Eucalypts** are vulnerable to endemic insects and exotic pathogens that have either host-switched to eucalypts or are extreme generalists. These pose a biosecurity threat to Australia's plantations and native eucalypt forests – a recent example being the introduction of myrtle rust to Australia in 2010. An ACIAR initiative has scoped the potential for the development of a Centre for the Biocontrol of Eucalypt Pests, enabling improved international collaboration on invasive pests of eucalypts and their natural enemies.

Work with smallholders in South Africa's Eastern Cape Province has seen the successful introduction of legumes to help bring back productivity to abandoned arable land. In the course of the project **native legumes** from South Africa were evaluated for potential integration into the system; some of these have shown promise for growing in Australia and are scheduled for release this year, helping Australian producers to fill traditional green feed gaps in autumn and late spring.

A course on '**live rock**' aquaculture, the first of its kind in Australia, has opened up to Indigenous communities from an enterprise tested already in Tonga. There is a large and growing market for live rock (which hosts marine life and algae) for saltwater aquariums; culture of live rock is spurred on by closure of wild harvest activities. Being a low impact, low maintenance industry it is a great opportunity for Indigenous communities because it fits perfectly with their local understanding of marine systems and their important cultural activities.

The Australian **Barramundi** Farmers Association has identified water re-use and water discharge issues as major research areas. A project has highlighted the potential of lotus plants to remove nutrients and solids from barramundi aquaculture waste water. As well as achieving environmental benefits, the production of lotus plants may also realise a saleable commodity for the farmer.

Research into serious damage to **ginger crops** in both Fiji and Australia has identified the fungal

soft rot that is responsible. The scientists have established that disease epidemics are triggered by wet weather events when soils remain saturated for lengthy periods during summer and early autumn. They have developed management options to control waterlogging and limit surface water movement. They also found that using suitable rotation crops and lengthening the period between susceptible ginger crops may limit the build-up of pathogen loads in the soil.

Research to help growers of peanut, soybean and mungbean in Indonesia is also benefiting growers in Queensland. At Kingaroy research on technology to transform peanut seed embryo into an artificial seed for planting has the potential to improve seed quality, cut peanut seed costs by up to 50%, and bring a benefit of \$2 million per annum to the industry.

## Productivity leap through relay cropping

A cropping system initially trialled during work with the African countries involved in SIMLESA has also led to some new thinking about how to make the fields more productive in Australia's northern grain-growing region. Farmers in the region rely on summer rainfall over a few months, which until now has only allowed for a single crop each year.

ACIAR project scientists working at a research station at Gatton are conducting trials of relay cropping, where a second crop is sown into a standing crop before the first crop is harvested. For example a maize crop sown in September is mature by the end of December and harvested 1–4 months later. Traditionally this timing would prevent the growing of a second crop. With relay cropping, a crop such as mungbean is planted into the maize at maturity. Initial results of planting mungbean in this way have seen a 2.4-fold increase in land productivity and a 1.5-fold increase in gross margins.

Modern controlled-traffic and seed technologies with some modifications enable the mechanisation of the relay-crop arrangements. So far the scientists have developed systems for wheat–mungbean, sorghum–chickpea and now maize–mungbean. The trials have moved on-farm and are helping growers on the Darling Downs to lift their productivity and improve their incomes.



ACIAR research also brings benefits to Australia, such as improvements in relay cropping to help growers in Australia. The research is linked to work in Africa, seen here in a field trial.

## Multilateral program

ACIAR is responsible for funding the work of International Agricultural Research Centres (IARCs) on behalf of the Australian Government.

## CGIAR and IARCs

### Highlights

- Bioversity International is helping banana growers in Indonesia by improving production practices, including the effective management of banana wilts.
- WorldFish is leading a study to map the country's aquaculture potential in East Timor.
- CIMMYT guides SIMLESA to expand its activities into other communities through new partnerships with the private sector and NGOs.

### Overview

The system of IARCs comprises the institutions financed under the umbrella of the CGIAR, together with the non-associated centres that also have a global mandate. One of ACIAR's legislated functions is to fund IARCs on behalf of the Australian Government.

Funding to the centres managed by ACIAR has contributed to reducing hunger and poverty, improving human health and nutrition, and enhancing ecosystem resilience—all of which are well documented in independent assessments. The current food security and natural resource challenges underpin the importance of ensuring increased and effective international agricultural research for development through the CGIAR. The Australian Government continues its support for the CGIAR, and has committed to increased financial support.

CGIAR continues its reform process that was instigated in 2008. The framework includes: a

new constitution for the CGIAR Consortium; a centralised multi-donor CGIAR Fund; a Strategy and Results Framework (SRF) and associated CGIAR Research Programs (CRPs); and an accountability/governance framework for the CGIAR network. ACIAR has a role as a member of the Fund Council to progress and implement outstanding reform issues and has a high level of engagement with CRPs.

### Achievements

In line with the **increased financial support of the IARCs by the Australian Government**, the number of active multilateral projects increased from 18 to 34 over the past year, with 11 more under development. The contributions of a number of international centres to ACIAR projects are documented throughout the country reports. The IARC presence in countries such as Afghanistan, Iraq and Myanmar overcomes the hurdles of inaccessibility, enabling ACIAR to commission research to reach the poor in those countries.

Bioversity International is involved in the research to improve the livelihoods of small-scale banana farmers in Indonesia while also helping banana producers in Australia by improving production practices, including the **effective management of banana wilts**. The project has developed packages of Integrated Pest Management (IPM)/Integrated Crop Management (ICM) guidelines for rehabilitating and improving the livelihoods of banana farmers. They are now being tested in a pilot study in one community in West Java and another in Sumatra.

The **fisheries and aquaculture sectors in East Timor** have potential, but are largely undeveloped. WorldFish is leading a study to map the country's aquaculture potential and fishery dependence, and to identify priorities and develop implementation plans for key components of a small-scale fisheries policy.

## SIMLESA advances

SIMLESA (Sustainable intensification of maize–legume cropping systems for food security in eastern and southern Africa) is a flagship enterprise of CIMMYT, which receives substantial funding from Australia. At their annual review and planning meetings in September 2012, participants had the opportunity to attend site-specific presentations by NARS partners and discuss new partnerships with the private sector and NGOs willing to join SIMLESA. The new partners have agreed on expanding SIMLESA activities in other communities, in line with the SIMLESA target of reaching out to 100,000 farmers within 10 years.

An Adoption Pathways project, a continuation of the fruitful partnership between ACIAR and African researchers that began under SIMLESA, has been launched and will be funded by AIFSRC. The project focuses on the socioeconomic, policy, institutional, risk, and agro-climatic constraints and/or incentives that affect farmers' technology-adoption behaviour. Building on the success of SIMLESA, the new project will systematically collect and analyse household, plot, and village level data from sentinel villages representing maize-legume-based farming systems in Ethiopia, Kenya, Tanzania, Malawi, and Mozambique.



Work by the AIFSRC is helping to understand the dynamics of research adoption to accelerate extension.

## Australian International Food Security Research Centre

The AIFSRC focused on cementing progress by furthering the suite of projects and partners, and establishing a presence in Africa.

## Highlights

- A highly successful Conference and formal launch of the AIFSRC by the Australian Minister for Foreign Affairs in November 2012 resulting in widespread endorsement of the Centre's 10 year Strategy by all delegates, including senior representatives from Pan-African bodies, African governments, international peers and Australian stakeholders.



- A new C\$15 million research partnership with the Canadian International Development Research Centre (IDRC) was established to run a competitive food security research Fund **Cultivate Africa's Future (CultiAF)** in June 2013. *CultiAF* is designed to combat hunger in Sub-Saharan Africa by harnessing the potential for innovation among the region's smallholder farmers.
- The African Regional Office, based in Nairobi, was established in October 2012 and represents the AIFSRC and ACIAR in the region. It acts as an interface with African partners and to support the AIFSRC's operations in Africa, including projects in the ten AIFSRC focus countries of Burundi, Ethiopia, Kenya, Malawi, Mozambique, Rwanda, Uganda, Tanzania, Zambia and Zimbabwe.
- A scoping initiative is underway investigating how Australian experience and expertise can build capacity in African countries to address biosecurity and food safety challenges.

## Overview

The Australian International Food Security Research Centre (AIFSRC) is a centre within ACIAR, contributing to Australian aid efforts to improve food security by facilitating the delivery and adoption of agricultural innovations (technologies, policies and practices) to smallholder farmers. AIFSRC activities focus on better understanding adoption processes, capacity building and facilitating partnerships and mechanisms at a range of levels including Pan-African, regional and national policies, agribusiness systems and farm scale productivity.

The AIFSRC has an international focus, recognising the significance of food security to developing countries across Africa, Asia and the Pacific region. However, initial focus has been given to advancing food security in Sub-Saharan Africa. The activities of the Centre engage with a broad range of national and international partners from researchers through to delivery and extension workers, from the public and private sectors, community groups and civil society.

The AIFSRC has five programs; three focused on research and two focused on capacity building:

**Sustainable and productive farming systems**— Ensuring sustainable and productive agricultural

technologies are underpinned by systems thinking, foresight and enabling policies to enhance their rapid adoption, and embody sound natural resources management.

**Strong and Equitable Economic and Social Systems**—Ensuring effective policies, inclusive institutions and strong markets to build food security and accelerate adoption of innovations.

**Food nutrition and safety**—Improving research on better nutritional quality and diversity of crops and diets, improved food safety, reducing postharvest waste and value-adding technologies to food after harvest. It will contribute to the under-researched area of the nexus between agriculture, nutrition and health.

**Communications and knowledge management**— Ensuring the awareness and adoption of useful innovations through developing innovative ways to access information and knowledge, deliver high-quality technical advice and services to smallholder farmers, and support evidence-based decision-making.

**Education, training and capacity building**— Accelerating research adoption requires enhanced individual and institutional capacity, from research development and management through to delivery and empowering of farmers' organisations. It also requires activities that enhance the abilities of public- and private-sector agencies responsible for the widespread dissemination and adoption of innovations.

## Research achievements

The 2012–13 financial year was the first full year of operation for the AIFSRC since it was announced in October 2011. The AIFSRC has established a range of new partnerships (outside of traditional research agencies) including co-investment partnerships, which to date have leveraged a further 51% off the Centre's investment. A Regional Office, based in Nairobi, was established in October 2012 and represents the AIFSRC and ACIAR in the region.

Eight of the initial ten AIFSRC commissioned scoping studies have been completed and six have developed into major projects including the most recent projects in the areas of irrigation water management, integrated poultry and cropping systems and peri-urban vegetable production and

marketing. Two background studies considering future scenarios for African agriculture and characterising farming systems are also complete, the latter is being extended to promote and disseminate the findings to the policy makers and researchers who require this analysis for decision making and prioritisation. The scoping study into whether a Landcare-style approach can be broadened to address issues associated with smallholder farmer access to the agri-food chain and improve food security is on track and has completed its first stage of consultation and data collection.

The AIFSRC now has major research activity progressing well under ACIAR management in the following areas:

- Understanding the socioeconomic constraints to and incentives for faster technology and innovation adoption
- Incorporating trees into cropping systems to improve soil fertility, crop yields and diversify livelihoods utilising national programs for scale out
- Investigating business models to sustain incorporating small hand-held tractors into farming systems
- Improving peri-urban agriculture, particularly vegetable cultivation and marketing, amongst youth and women using best practice hubs
- Utilising agricultural innovation platforms to improve small-scale irrigation practices by farmers, water management agencies and policy makers
- Investigating linkages between family poultry and crop value chains and their potential to improve household nutritional status and the socioeconomic and social equity of both operations.

## Capacity building activities

A major food security pathway in Sub-Saharan Africa, that of intra-regional trade, is being strengthened. The AIFSRC is undertaking a biosecurity scoping study to investigate how Australia's strengths in biosecurity can benefit African countries, particularly in the areas of market access, cross border trade, plant and animal health, food safety and biosafety.

Strengthened research partnerships and coordination have been established between African and Australian educational and research bodies and other African networks of educational institutions (such as the Regional Universities Forum for Capacity Building in Agriculture – RUFORUM), through the Australia Africa Universities Network (AAUN), for example through AIFSRC support to the Research Development Fund which will fund the development of African-based agriculture and food security projects between African and Australian Universities.

Nutritional policy development capacity has been strengthened through support to delegates from Rwanda, Ethiopia, Kenya and Uganda to attend the Comprehensive Africa Agriculture Development Programme (CAADP) Nutrition Capacity Development Workshop in February 2013. East African countries are now writing national nutrition plans aligned with CAAPD.

East African research partners have greater capacity in science communication after AIFSRC provided funding for attendance at a Communication Masterclass run by the Crawford Fund in April 2013.

## A new partnership to assist cultivate Africa's future

The new CA \$15 million Australia-Canada food security fund, Cultivate Africa's Future (CultiAF) launched at African Agricultural Science Week, Accra in 2013, represents a new partnership model for Australia's AIFSRC, and Canada's IDRC, and for research in southern and eastern Africa. This unique four-year, research partnership is designed to combat hunger in Sub-Saharan Africa by harnessing the potential for innovation among the region's smallholder farmers, the majority of whom are women.

CultiAF will build research capacity and increase opportunity for scientists in the region through agricultural science and innovation, in particular on bridging the gap between science, technology and innovation, which is key to enhancing Africa's capacity to sustainably feed itself.

The competitive Fund will support innovative and complementary applied research on post-harvest systems, nutrition and sustainable water use; identify innovations and mechanisms for scale-up of the most promising research results and support and underpin national and regional agriculture and food security policies and programmes.



A unique Australia-Canada partnership is helping create opportunities for African scientists to help increase production for smallholder producers, many of who are women.

# Building research capacity

## Overview

Building capacity in our partner countries' agricultural research institutes by providing discipline-specific and broader training opportunities is one of ACIAR's key priorities. ACIAR has continued to increase the number of its postgraduate awards (known as the John Allwright Fellowships), with co-funding from AusAID. These fellowships, along with the John Dillon Fellowships, now come under the Australia Awards program, together with the scholarships offered by AusAID and the Department of Industry, Innovation, Science, Research and Tertiary Education (DIISRTE). Australia Awards not only develop skills and knowledge but also build enduring people-to-people links between Australia, our regional neighbours and the broader international community.

Specialised training activities provided through postgraduate and research management fellowships are the focus of ACIAR's training program. A small number of short courses that target specific cross-program issues are also included.

Research capacity of partner country institutions is enhanced through targeting individuals involved in ACIAR projects. These projects are managed by individual research programs, and Fellows receive on-the-job training and may visit Australia for a specific training course. Australian specialists also visit partner countries to present technical training programs.

The ACIAR training program includes the following:

- Postgraduate training, which comprises John Allwright Fellowships for postgraduate study in Australia associated with specific ACIAR projects.
- Support for small in-country research projects, or travel to an international conference to present results of postgraduate research, for Fellowship returnees.
- Training on research management (John Dillon Memorial Fellowships).

- Events Funding: Provision of financial assistance to organisations or individuals wishing to conduct or attend an event that directly benefits international agricultural research. The aim is to develop the knowledge, skills and capacity required to achieve the mandate of ACIAR and build productive partnerships to benefit the effectiveness of international agricultural research. ACIAR places a high priority on the dissemination and communication of knowledge gained from the financial assistance.

## Postgraduate fellowships

John Allwright Fellowships for postgraduate training at Australian universities at the Masters or Doctoral level are awarded to partner-country scientists involved in ACIAR-supported collaborative research projects. ACIAR's research priorities are determined through regular consultation with partner countries. Alignment of postgraduate training with research ensures that the training needs of partner countries are met. Thus, postgraduate studies focus on areas that add value to the theme of the ACIAR project in which the awardee is engaged, but do not directly form part of the project. Fellows may be able to spend up to half their research project period on fieldwork in their home country. This enables them to ensure that their postgraduate research work is relevant to the project and their home country's needs. It also allows them to maintain their professional and personal networks. The size of this fellowship scheme has increased significantly over recent years, in recognition of the capacity-building benefits provided to partner countries and the impact on regional relationships. During 2012–13 there were 110 active fellowships at Australian universities (compared with just 15 scholars in 1999–2000).

## Returnee small project awards

Grants up to \$10,000 are available for John Allwright Fellows in country once they have completed their postgraduate studies and returned home to relevant employment. The grant provides for a postgraduate activity that continues the research done within an ACIAR project, or is related to it. These awards are primarily aimed at developing projects in the returnee's institution, and may catalyse longer-term support. Since 2000, a total of 75 of these awards have been made with 11 being awarded in 2012–13.

## John Dillon Memorial Fellowship

The John Dillon Fellowships provide an opportunity for outstanding mid-career agricultural scientists and economists to further develop their career in Australia. The scholarship's aim is to develop the leadership skills of Fellows from ACIAR partner countries in agricultural research management, agricultural policy and/or extension technologies through exposure to Australian agriculture across a range of best practice organisations. Since the program's inception in 2002, ACIAR has awarded 85 Fellowships. A group of 10 Fellows (from Bangladesh, Botswana, Indonesia, Philippines and Vietnam) visited Australia for a 5-6-week period in February-March 2013. The then Minister for Foreign Affairs, Senator the Hon. Bob Carr, presented each visiting Fellow with a plaque at Parliament House, Canberra. This was a highlight of the visit, and the Fellows also appreciated the networking opportunity and cooperation from all host organisations.

## John Allwright and John Dillon Alumni Association

The Alumni Association of ACIAR maintains linkages with all people who have received support through the John Allwright or John Dillon Fellowship programs. Alumni stay involved with ACIAR through various activities, such as playing key roles in ACIAR's partner organisations and projects, or in delivering ACIAR-sponsored training courses and impact assessment activities in partner countries. All Alumni members receive copies of ACIAR technical publications and newsletters.

## Australian Youth Ambassadors for Development

ACIAR has successfully assigned over 70 Youth Ambassadors in the AusAID-funded Australian Youth Ambassadors for Development scheme since 2000. This scheme gives young Australians the opportunity to spend 3–12 months in a partner country assisting with a development activity. During 2012-13 Youth Ambassadors were associated with ACIAR projects in China, Indonesia, Tonga, Vanuatu, Lao PDR and Timor Leste.

## Crawford Fund fellowships, training courses and master classes

Total funding to the Crawford Fund for 2012–13 included an Australian Government allocation (through ACIAR) of \$1,082,500, and \$111,970 from ACIAR for joint training activities. In 2012–13, 20 short training activities associated with ACIAR projects were run by the Crawford Fund, as well as three Master Classes in Indonesia (on Policy Analysis), in Sri Lanka for attendees from Africa and Asia (on *Rhizobium Technology*), and in Thailand for attendees from Asia (on Stakeholder Communication).

Support was also provided to developing-country scientists for short-term placements in Australia for technical training. The Crawford Fund sponsored six placements in 2012–13 for scientists associated with ACIAR projects.

## Communicating research results

### Overview

The communication of results from ACIAR's research projects raise awareness of the Centre's activities and outcomes to meet the legislative functions to communicate research outcomes.

The main medium through which results are disseminated is through the scientific publishing series. ACIAR's website is the primary source of information on project activities and outcomes, and offers all publications available for free download. Hard copies of publications can be purchased through the online bookshop. Communication and dissemination activities also target new and emerging media, through an integrated social media platform.

Other activities focus on raising public awareness of ACIAR's work; through; media releases, television and radio coverage; Partners Magazine; and providing support for internal and external stakeholders.

## Achievements

Twelve scientific and extension titles were published in ACIAR's scientific series during 2012–13, with four titles also published as translations. An additional five reports in the impact assessment series (IAS) were published. All available project final reports were published online in PDF format. Publications produced are listed in Appendix 5, together with the corporate and research awareness titles produced during the year.

A total of 4,566 hard copies of publications were distributed, of which 151 were sold to developed-world customers. Total revenue from sales and copyright payments was \$7,233.84. Complimentary copies are distributed on request to people and institutions involved in agricultural research, development and extension in ACIAR's partner countries, as well as being available for free download from the ACIAR website.

The major publications included: *Sophy and the vegetable patch* (Monograph 152, also translated in Khmer), produced in partnership with the Maddox Jolie-Pitt Foundation teaching children, and through them their families about vegetable production; Hatchery management of tiger grouper (*Epinephelus fuscoguttatus*): a best-practice manual (Monograph 149, also translated into Bahasa) to extend knowledge of grouper aquaculture in Indonesia; and a Technical Report on Oil palm pathways: an analysis of ACIAR's oil palm projects in Papua New Guinea (TR 80). Impact assessment series publications were also produced (see Measuring Research Results chapter for more detail).

Corporate publications included a special edition of Partners reporting on projects in Papua New Guinea, along with two other editions, reporting

on aid effectiveness and enhancing smallholder incomes. Other corporate publications included: the Independent Review of ACIAR and the agency's 2011–12 Annual Report.

ACIAR has continued to build its new media presence, focusing on the development of mobile extension materials and platforms, and an integrated social media strategy. As part of the development of mobile technologies an online extension platform, capable of utilising a range of electronic documents and formats has been developed and trialled. This platform targets scientists and extension workers engaged in project activities, allowing these groups to capture and utilise a range of material to demonstrate to intended users of that research.

A small, strategic number of public awareness activities were held, in partnership with the Crawford Fund, and other stakeholders to generate public awareness of the Centre's activities and on the benefits of international agricultural research. These initiatives resulted in increased media coverage of ACIAR's activities in mainstream, specialist science and rural media within Australia; internationally on Radio Australia and Australia TV Network; and in the media of partner countries.

The Communications team has also worked on developing methodologies to improve dissemination activities within projects. This is helping build capacity within project teams to deliver targeted and improved communications. Work has also commenced examining the feasibility of using mobile and web-based technologies to disseminate project results to next and end-users.

## Keep up to date

Want more information on the latest events, projects and happenings at ACIAR?



Visit our website  
<[aciar.gov.au](http://aciar.gov.au)>



Read our blog  
<[aciarblog.blogspot.com.au](http://aciarblog.blogspot.com.au)>



Follow us  
<[twitter.com/ACIARAustralia](http://twitter.com/ACIARAustralia)>



See our photos  
<[www.flickr.com/photos/aciar1](http://www.flickr.com/photos/aciar1)>



Watch our videos  
<[www.youtube.com/user/ACIARprojects](http://www.youtube.com/user/ACIARprojects)>



Join our network  
<[www.linkedin.com/company/aciar](http://www.linkedin.com/company/aciar)>



View our presentations  
<[www.slideshare.net/ACIAR\\_Australia](http://www.slideshare.net/ACIAR_Australia)>



Subscribe to our RSS feeds.  
Get alerts on the latest news and publications as they're released.

## Measuring research impacts

### Overview

The Impact Assessment Program measures the difference ACIAR's investment makes to research capabilities and the economic wellbeing of our target groups in our partner countries and Australia. The results are used to support the Centre's public accountability, to improve project development and implementation and to provide valuable input into setting priorities for future activities. These activities help improve the accuracy of the information used in assessing research impacts and the effectiveness of the methodology used to quantify investment returns.

The Impact Assessment program commissions three types of assessments on finished projects:

- economic evaluations, published in ACIAR's Impact Assessment Series (IAS), an in-depth analysis of the adoption and impact of research outputs in our partner countries and Australia. Quantitative estimates of the investment returns are provided, as well as a qualitative assessment of social and environmental impacts.
- adoption studies of finished-project evaluation usually undertaken by the Australian project leader 3–4 years after the project's completion. These provide ACIAR, and our partner organisations, with a greater understanding of the pathways to change, and why adoption has or has not occurred, and
- 'impact pathway analysis' to provide an in-depth understanding of the contextual environment, the key stakeholders, pathway linkages, the changes that have occurred, and actions that could be undertaken within the project or program to increase the likelihood of the ultimate goals being reached.

The knowledge gained is also shared through ACIAR-funded and -delivered training courses on research evaluation.

### Achievements

In 2012–13 four impact assessment reports and one technical report were published. Five more studies were completed, with two of these

due to be published in early 2013–14. The published reports range from a review of ACIAR's investment in Africa to using an impact pathway as a framework for assessing the effectiveness of research programs.

## Impact assessments

### Oil palm pathways: an analysis of ACIAR's oil palm projects in Papua New Guinea

The oil palm industry is an important part of the economy of Papua New Guinea (PNG). While growing oil palm can provide good returns, production in the smallholder sector has been constrained by a range of issues. ACIAR has funded a number of projects aimed at increasing smallholder oil palm production in PNG. This analysis examined the pathways through which the ACIAR-funded socio-economic and biological control projects benefit oil palm smallholders, and, where possible, the economic value of those benefits.

The authors quantified the value of the socio-economic projects that led to an increased participation of household members in oil palm production. In net present value terms, the benefits to PNG from various card payment schemes was estimated to be around \$57.3 million (in 2011 Australian dollars, using a discount rate of 5%). The cost of the research, including all cash and in kind contributions, was around \$2.7 million expressed in similar terms. Therefore the estimated net present value of ACIAR funded socioeconomic research is \$54.6 million. The benefit:cost ratio is estimated at around 20:1 and the internal rate of return at about 76%. In real terms, ACIAR contributed around 60% of the total research costs. On a cost-share basis, benefits of around \$34.5 million can be attributed to ACIAR.

### Including natural resource management and environmental impacts within impact assessment studies: methodological issues

This report considers how to incorporate the effects of agricultural research and development (R&D) on environmental outcomes within the impact assessments regularly undertaken for research funded by ACIAR. Agricultural production (including downstream processing) affects the same environment that provides essential inputs to agricultural production. The report is concerned with evaluating environmental outcomes using an

economic surplus framework, consistent with that currently used for ACIAR impact assessments. The report defines approaches to using an extended cost–benefit framework and grounding values within a 'willingness to pay' conception of economic welfare analysis

### ACIAR's activities in Africa: a review

Since 1982 ACIAR has provided more than \$101.8 million (in 2012 Australian dollars) to fund over 80 projects that focused either entirely or partly on African agricultural productivity. Within Africa, the area of focus has primarily been southern and eastern Africa. This desktop study undertook a review of a subset of ACIAR's investment in Africa to develop some key findings and some lessons for the future, including:

- Adoption of project outputs was higher when final users were engaged in the research or when there was a clear dissemination strategy, including research into the most effective way of delivering outputs to final users.
- Barriers to adoption include:
  - a lack of final outputs that could be adopted
  - insufficient consideration of socioeconomic factors in the development of solutions and disseminating them to final users
  - a lack of clear understanding of partner capacity.

### Adoption Study for projects completed in 2007–08

The adoption study report, which summarises the adoption level of outputs from nine projects completed in 2007–08 examined projects in nine individual partner countries. Three of the projects were on livestock health and related projects, with one horticulture project, four crop-related projects and one soil project. Relatively high levels of adoption appear to have been driven by strong economic incentives, such as improved incomes, higher yields and greater crop choice. Where levels of adoption were low, factors such as difficulty in accessing the target audience, high staff turnover resulting in limited adoption upon project completion, and cultural barriers prolonging the time to adoption were identified.



## Impact pathway analysis of ACIAR's investment in rodent control in Vietnam, Lao PDR and Cambodia

Since 1995, ACIAR has funded a series of rodent control projects in south-east Asia. This study was carried out to assess ACIAR's investment in rodent control through a qualitative and, where possible, quantitative, impact pathway analysis. It involved assessments of the projects undertaken in Vietnam, Lao PDR and Cambodia, and the uptake, where applicable, of the results of the project. The analysis revealed that the length of exposure to ecologically based rodent management (EBRM) practices has a positive effect on uptake and, hence, impact. Of the three countries, Vietnam had the largest number of projects (six) and the longest exposure (1995–2010) to rodent control and management activities. Laos had two projects (1999–2006), while experience with a rodent control project. These differences largely account for the varying levels of outputs, outcomes and impacts in each of the three countries.

Vietnam and Laos increased their knowledge of rodent ecology and taxonomy and gained understanding of methods for setting up and using the community trap–barrier system (CTBS). Both developed policy recommendations on the reduction of rodenticide use, and also produced materials such as training modules, information booklets and manuals about rodent control. In Vietnam, EBRM was developed through community action or integrated rodent management at the village level. This community action may or may not use the CTBS. In Laos and Cambodia, the CTBS was demonstrated as the main focus of EBRM intervention.

The outputs of these projects have increased the awareness of the importance of rodent control among farmers, extension officers and other workers—not only for agricultural production, but also for food security and poverty alleviation. This has led to organisations like the non-government organisation (NGO) World Vision and the German development agency Gesellschaft für Internationale Zusammenarbeit (GIZ) incorporating rodent control and management into their development programs in Vietnam and Laos.

## Technical Report

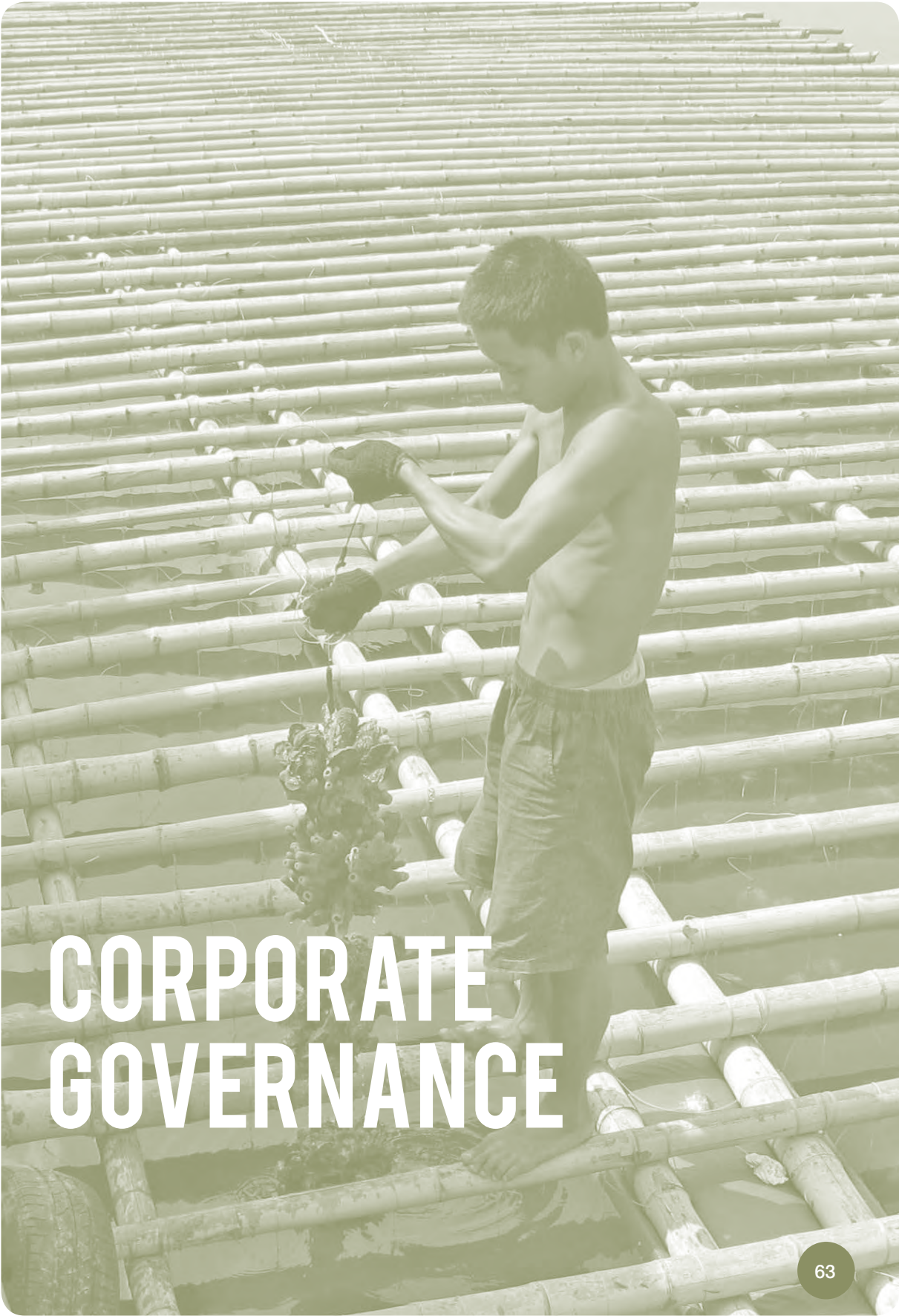
The technical report collates three studies of the food security problem in Australia's own region—specifically East Timor, Papua New Guinea (PNG) and the Pacific island countries and territories (PICTs). Three broad themes emerge from the material provided in these studies:

- Food security issues can emerge in many different ways—sometimes related to the quantity of food, sometimes to dietary diversity, sometimes seasonal and, in the case of fishing, sometimes as a future prospect because of unsustainable activities today.
- Food insecurity arises from an interacting mix of agronomic, environmental, cultural and institutional factors. Addressing causes in any one dimension requires taking careful account of the interactions in other dimensions.
- Some of the dimensions of food insecurity are amenable to careful R&D and extension. New varieties, better production techniques and dissemination of best practice all have the potential to increase food security. But all of these developments must be planned and coordinated between different arms of government, and implemented within the context of existing cultural and institutional constraints.

## Capacity building in impact assessment

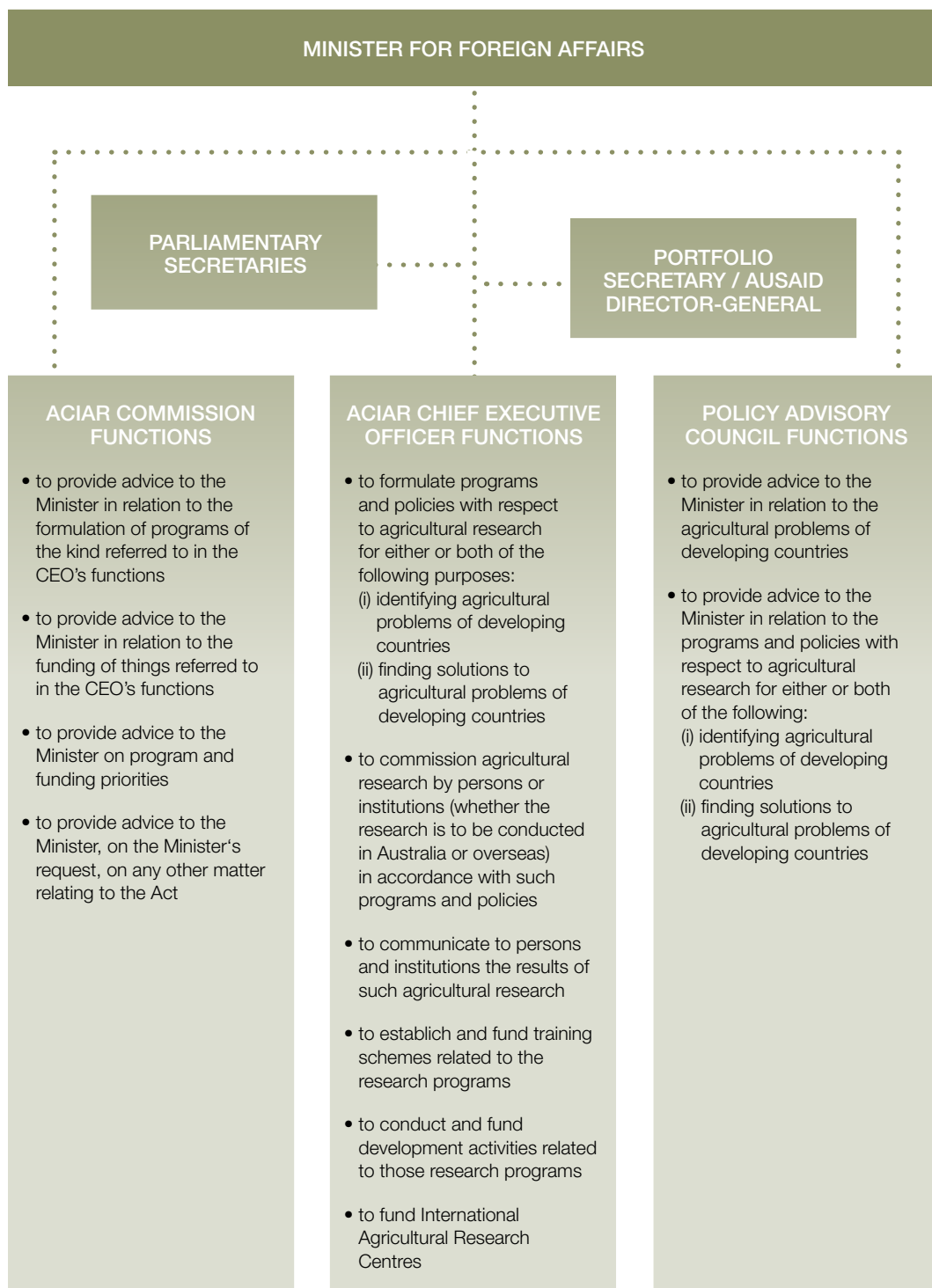
Links with research evaluation and impact assessment groups in Australian and international agricultural research organisations were further enhanced through participation in four evaluation workshops held in Australia, Brazil, Italy and Malaysia. Each of these workshops was attended by leading Australian and international specialists in impact assessment, and allowed for considerable interaction and knowledge-sharing. An 8-day impact assessment workshop was delivered in Pakistan to strengthen an impact culture in, and build the evaluation capabilities of, the 25 Pakistani attendees who primarily came from ACIAR partner organisations.





# CORPORATE GOVERNANCE

# ACIAR's governance framework



## Chief Executive Officer

The office and role of the Chief Executive Officer (CEO) is established in Sections 4A and 5 of the Australian Centre for International Agricultural Research Act 1982 (ACIAR Act). The CEO manages the affairs of the Centre and its staff, subject to, and in accordance with, any directions given by the Minister under Section 5. Specifically, the CEO's functions are to:

- a. formulate programs and policies with respect to agricultural research for either or both of the following purposes:
  - i. identifying agricultural problems of developing countries
  - ii. finding solutions to agricultural problems of developing countries
- b. commission agricultural research by persons or institutions (whether the research is to be conducted in Australia or overseas) in accordance with such programs and policies
- c. communicate to persons and institutions the results of such agricultural research
- d. establish and fund training schemes related to the research programs referred to above
- e. conduct and fund development activities related to those research programs
- f. fund international agricultural research centres.

The Governor-General appoints the CEO for a term of up to seven years and the appointment is subject to the determinations of the Remuneration Tribunal. The Tribunal has determined the CEO to be an officer in the Principal Executive Officer (PEO) structure, at PEO Band C. The Minister is the identified Employing Body for remuneration purposes.

The CEO holds responsibilities as Head of Agency as set out in Part 7 of the *Financial Management and Accountability Act 1997* and Part 9 of the *Public Service Act 1999* respectively. The CEO is not subject to direction by the Commission in relation to the performance of functions or exercise of powers under these Acts.

Dr Nick Austin was the CEO during the 2012–13 financial year. Dr Austin commenced a 5-year term on 31 July 2009.

ACIAR's CEO is directly responsible to the Minister for managing the affairs of ACIAR in a way that provides proper use of the Commonwealth resources for which the CEO is responsible. The Agency Head is also responsible for managing the agency with direct accountability to the Australian Government.

## CEO remuneration

The remuneration of the CEO is subject to the relevant determinations of the Remuneration Tribunal. These provisions enable the Minister to determine the total remuneration, superannuation salary and performance pay components of the remuneration package, within the parameters of Remuneration Tribunal Determination 2012/14.

The CEO's remuneration package at 30 June 2013 consisted of:

- base salary of \$237,126
- Superannuation with an employer contribution of 10.5% of base salary
- other benefits.

## ACIAR Commission

The Commission for International Agricultural Research, established in Section 7 of the *ACIAR Act* provides strategic advice to the Minister on ACIAR's operations. The functions of the Commission, as set out at Section 9 of the *ACIAR Act*, are to provide advice to the Minister:

- in relation to the formulation of programs of the kind referred to in the CEO's functions
- in relation to the funding of things referred to in the CEO's functions
- on program and funding priorities
- on the Minister's request, on any other matter relating to the Act.

## Commission composition

Under Section 8 of the *ACIAR Act*, the Commission consists of a Chair and six other Commissioners. Details on Members of the Commission follow.

## Commission meetings

The Commission met four times during the 2012–13 financial year:

Meeting	Date	Location
20th meeting	16 October 2012	Canberra
21st meeting	18 December 2012	Canberra
22nd meeting	15 March 2013	Canberra
23rd meeting	17-21 June 2013	Jakarta, East Java and Bali, Indonesia

## Commission members as at 30 June 2013



**Ms Joanna Hewitt AO**  
Chair

Ms Joanna Hewitt AO is currently a public policy consultant and company Director. She was Secretary of the Department of Agriculture, Fisheries and Forestry (DAFF) from October 2004 until May 2007. During that time, Ms Hewitt served on the ACIAR Board of Management from December 2005 until mid-2007. Prior to her appointment at DAFF, she was Deputy Secretary of the Department of Foreign Affairs and Trade where, amongst her other responsibilities, she was the lead negotiator for the WTO Doha round. Joanna was Australia's Ambassador in Brussels from 2000–03 and before that Deputy Secretary of the Department of Foreign Affairs and Trade and Australia's APEC Ambassador. Joanna has a long history and affinity with international relations along with a strong knowledge of agriculture both in Australia and overseas.

Appointed 7 April 2011 for 3 years.  
Meetings attended: 4



**Professor Kym Anderson**  
Commissioner

A leading Australian economist specialising in trade policy and issues related to the World Trade Organization and has strong research interests in agricultural and environmental economics. Professor Anderson is the George Collins Professor of Economics and formerly foundation Executive Director of the Centre for International Economic Studies at the University of Adelaide, as well as a Professor of Economics in the Australian National University's Crawford School of Public Policy. He is a research fellow at Europe's London-based Centre for Economic Policy Research and a Trustee on the Board of Trustees, International Food Policy Research Institute (IFPRI). Professor Anderson brings a strong economic and trade policy perspective to the Commission as well as extensive knowledge of many of Australia's key rural industries.

Appointed 7 April 2011 for 3 years.  
Meetings attended: 4



**Dr Nick Austin**  
Commissioner

CEO of ACIAR since July 2009. Previously from the NSW Department of Primary Industries where he was Deputy Director-General and led the Department's Agriculture, Biosecurity and Mine Safety Division. Prior to that he led the Department's Science and Research Division and undertook or managed research projects across several areas including dairy, cotton, grain, livestock and wool.

Appointed 31 July 2012 for 2 years.  
Meetings attended: 4



**Mr Peter Baxter**  
Commissioner

Director-General of AusAID. Prior to moving to AusAID, Mr Baxter headed the Department of Foreign Affairs and Trade's Consular, Public Diplomacy and Parliamentary Affairs Division. His previous Canberra assignments have included senior management roles heading the Consular and Passports (2000), Corporate Management (2000–2001), Market Development (2001–2002) and North Asia (2005–2008) Divisions with DFAT.

Appointed 30 May 2013 for 3 years.  
Meetings attended: 3



**Mr David Crombie**  
Commissioner

Mr Crombie has more than 30 years commercial and representative experience in agriculture in Australia and in development assistance overseas. He served on the Board of Grainco Australia and subsequently the Boards of the Meat Industry Council and Meat and Livestock Australia where he was Chairman from 1998 to 2005.

He was Chairman of the Australian Rural Leadership Foundation, served on the Board of the Export Finance and Insurance Corporation and is immediate past President of the National Farmers Federation.

Mr Crombie operates family properties, breeding cattle and farming in southern Queensland.

Appointed 7 April 2011 for 3 years.  
Meetings attended: 2\*

\*Mr Crombie undertook the role of co-Chairing the IndoBeef Reference Group as a representative of ACIAR and the Commission; this role coincided with one meeting.



**Dr Joanne Daly**  
Commissioner

Dr Joanne Daly is the Strategic Advisor to the Environment Group of the Commonwealth Scientific and Industrial Research Organisation (CSIRO) on future opportunities for CSIRO's national biological collections and biodiversity. Her immediate past role was as Group Executive, Agribusiness (2007-2010) on the CSIRO Executive. The Group comprised seven Flagships and Divisions in the area of agricultural and life sciences and preventative health.

Appointed 29 October 2012 for 3 years.  
Meetings attended: 4



### Dr Conall O'Connell Commissioner

Dr Conall O'Connell is the former Secretary of the Department of Agriculture, Fisheries and Forestry (DAFF) and was previously Deputy Secretary of the Department of the Environment and Water Resources. He has also held a number of high-level positions in the Department of the Prime Minister and Cabinet, including responsibility for Federal-State relations, primary industries and environmental policy. DAFF is a key ACIAR stakeholder and the agencies interact in various areas of shared interest, including food security, agricultural research and biosecurity matters.

Appointed 7 April 2011 for 3 years.  
Meetings attended: 4

## Commission performance

Major milestones for the Commission during 2012–13 included:

- input to an independent review of ACIAR's appropriateness, effectiveness and efficiency
- endorsement of ACIAR's Annual Operational Plan 2013–14
- guidance on development of ACIAR's Strategic Plan to 2015–16
- discussions with key partners in Jakarta, East Java and Bali, Indonesia to examine ACIAR's evolving relationship with partners in country and to formulate views on program strategies and priorities.

## Disclosure of interests

Commissioners are required to disclose to the Minister and to the Commission any direct or indirect pecuniary interest that may conflict with the proper performance of the Commissioners' functions. A Commissioner who has an interest in a matter being considered by the Commission must not be present during any deliberation by the Commission on the matter and must not take part in any decision of the Commission with respect to the matter. The disclosure and the nature of the interest are recorded in the Commission meeting minutes, which are available for consideration by the Centre's auditors.

## Ministerial directions

Written directions may be given to the CEO by the Minister regarding the exercising of his powers or the performance of his functions. This includes directions with respect to the commissioning of particular research. In 2012–13 there were no directions given.

## Commission costs

The direct cost of Commission operations during 2012–13 was \$87,398 including fees, travel and other meeting expenses. The CEO's salary and other management costs are not included. The comparative figure for 2011–12 for the Commission was \$92,122.

Fees for the Chair and Members of the Commission are set by the Remuneration Tribunal.



The daily fees for the Chair and Members (other than the CEO) were \$798 and \$581 respectively as at 30 June 2013.

## Policy Advisory Council

The Policy Advisory Council is established under Section 17 of the *ACIAR Act* and provides advice to the Minister for Foreign Affairs on strategic aspects of national and regional development. The Council's functions are to provide advice to the Minister regarding:

- agricultural problems of developing countries
- programs and policies with respect to agricultural research for either or both of the following purposes:
  - identifying agricultural problems of developing countries
  - finding solutions to agricultural problems of developing countries.

The Council's role utilises partner countries' stakeholder knowledge to provide a valuable overview for advising the Minister, the Commission and the Centre on matters including:

- national and regional development constraints
- opportunities for research and development collaboration
- national and regional research priorities, particularly those of ACIAR's partner countries
- the matching of Australian expertise (Australia's competitive advantage) with these priorities
- modes of operation for ACIAR
- sources of national and international expertise.

## Council composition

The Council's membership is limited to 13, comprising a President, the Director General of AusAID or his nominee, and no less than nine, nor more than 11 other members appointed by the Minister. Predominantly, members are appointed from stakeholder organisations in partner countries to bring a range of agricultural and development experience. Under the *ACIAR Act* the Minister is required to ensure that a substantial number of the Council members are residents of countries other than Australia, having regard for the knowledge of appointees concerning the agricultural problems of developing countries or their experience in organising or conducting agricultural research.

## Council meeting

Each year the Council holds a meeting in Australia over several days to discuss areas related to its role and functions. During 2012–13 the Council met in Canberra on 15 October 2012. The program included meetings and field visits with Australian research providers and stakeholders in Tasmania and was followed by discussions with the Deputy Premier and Minister for Primary Industries and Water/Minister for Energy and Resources in Hobart, during 16–19 October 2012.

At its meeting the council gave priority consideration to:

- the role of agricultural research in food security in key partner countries
- the ACIAR Strategic Plan to 2015–16
- a presentation from AusAID on food security and rural development.

## Council membership (as at 30 June 2013)

Member	Term of appointment
Dr Beth Woods OAM Deputy Director General, Agriculture, Fisheries and Forestry Department of Agriculture, Fisheries and Forestry Brisbane QUEENSLAND	President 1 October 2007–30 September 2010 21 March 2011–20 March 2014
Mr Ian Kershaw Nominee of the Director-General AusAID Canberra AUSTRALIAN CAPITAL TERRITORY	Ex-officio member

Member	Term of appointment
Dr Subbanna Ayyappan Director General Indian Council of Agricultural Research Secretary Department of Agricultural Research and Education New Delhi INDIA	Appointed member 19 July 2010–18 July 2013
Mr Brown Bai Managing Director Tola Investments Limited Gordons PAPUA NEW GUINEA	Appointed member 7 March 2005–6 March 2008 15 May 2008–14 May 2011 22 August 2011–21 August 2014
Dr Monthathip Chanphengxay Director General Department of Agriculture Vientiane LAO People's Democratic Republic	Appointed member 15 May 2008–14 May 2011 22 August 2011–21 August 2014
Dr Patricio Faylon Executive Director Philippine Council for Agriculture, Aquatic and Natural Resources Research and Development Los Baños THE PHILIPPINES	Appointed member 10 March 2003–9 March 2005 10 March 2005–9 March 2008 15 May 2008–14 May 2011 22 August 2011–21 August 2014
Dr Haryono Director General Indonesian Agency for Agricultural Research and Development Jakarta INDONESIA	Appointed member 4 September 2012–3 September 2015
Dr Jia Jingdun Director General China Rural Technology Development Centre Ministry of Science and Technology Beijing PEOPLE'S REPUBLIC OF CHINA	Appointed member 10 March 2003–9 March 2006 10 March 2006–9 March 2009 18 September 2009–17 September 2011 17 April 2013–16 April 2016
Dr Ouk Makara Director Cambodian Agricultural Research and Development Institute Phnom Penh CAMBODIA	Appointed member 17 April 2013–16 April 2016
Dr Nguyen Van Bo President Vietnamese Academy of Agricultural Sciences Hanoi VIETNAM	Appointed member 1 March 2004–28 February 2007 1 May 2007–30 April 2010 19 July 2010–18 July 2013
The Hon. Professor Ruth Oniang'o SS DSM Founder Rural Outreach Program Editor-In-Chief African Journal of Food, Agriculture, Nutrition and Development Nairobi KENYA	Appointed member 7 July 2010–6 July 2013

Member	Term of appointment
Dr Jimmie Rodgers Director General Secretariat of the Pacific Community Noumea NEW CALEDONIA	Appointed member 4 September 2012–3 September 2015
Dr Muhammad Tusneem Chair National Agricultural Education Accreditation Council Islamabad PAKISTAN	Appointed member 15 May 2008–14 May 2011 22 August 2011–21 August 2014

## Financial accountability and compliance

ACIAR, as a statutory authority, is subject to the policy guidelines determined by government from time to time regarding accountability, reporting, review and general operations. The agency is accountable through the Minister to Parliament. It is also subject to government financial and accounting policies and procedures. Staff members are employed under the *Public Service Act 1999*. Within these constraints, the Centre has the power to do all things it considers appropriate for the performance of its statutory functions.

ACIAR's authority derives from the *Australian Centre for International Agricultural Research Act* (ACIAR Act). Financial powers and duties are also drawn from the *Financial Management and Accountability Act 1997* (FMA Act) and subordinate Regulations and Orders, and from the *Public Service Act 1999* in the case of staffing.

The Centre follows accounting practices in accordance with the FMA Act, other related legislation, and recognised accounting standards. ACIAR's financial statements are presented in accrual accounting format on pages 78-139 of the report. The financial statements have been audited by the Australian National Audit Office.

## Insurances

Primary corporate insurance for the Centre is provided through Comcover as the manager of the Commonwealth's insurable risks. Comcover's coverage includes general and products liability, professional indemnity, CEO's and officers' liability, property loss and damage, personal accident and official overseas travel. The insurance premium for 2012–13 was \$24,647 (excluding GST).

The premium paid for 2011–12 was \$27,937 (excluding GST).

Liability and professional indemnity insurances were not invoked in 2012–13.

## Risk management and business continuity planning

The Audit Committee is responsible for risk management and business continuity planning.

## Audit Committee

ACIAR's Audit Committee is established in accordance with Section 46 of the *FMA Act*. The committee's objectives are:

- to provide advice to the CEO that ACIAR's control framework is in place and working effectively
- to ensure the objectivity and reliability of externally published financial information
- to ensure the CEO that adequate systems are in place to ensure that ACIAR complies with all legislative and other requirements
- to promote and facilitate communication between the ACIAR's auditors (both internal and external) and management.

Four Audit Committee meetings were held in 2012-13. Audit Committee membership and attendance during the year were as follows:

Member		Meetings eligible to attend	Meetings attended
Ms Glenys Roper	Chair/External Member	4	4
Dr Simon Hearn	ACIAR, Principal Adviser, Strategy and Policy (retired 14 September 2012)	1	1
Dr Caroline Lemerle	ACIAR, Research Program Manager, Agricultural Systems Management (retired 14 September 2012)	1	1
Mr Tony Bartlett	ACIAR, Research Program Manager, Forestry (appointed 14 September 2012)	3	3
Dr Wendy Henderson	ACAIR, Science Communicator (appointed 14 September 2012)	3	3
Mr Albert Blair	ACIAR, Chief Finance Officer (ex-officio, commenced 23 May, 2010)	4	4

Each committee meeting was supported by advisers from ACIAR external auditors (Australian National Audit Office), internal auditors (Ernst & Young) and relevant agency staff with secretariat support provided by the ACIAR finance team.

## Internal audit

Internal audit forms an important part of ACIAR's governance framework, providing an integral contribution to governance, risk management and control. In 2011-12, internal audit activity consisted of a review of ACIAR's stakeholder management, IT security and project finalisation, evaluation and impact.

All recommendations arising from these reviews were either satisfactorily addressed during the year or were in the process of being addressed.

## Countering fraud

ACIAR's fraud prevention, investigation, reporting and data collection procedures and processes meet our specific needs and comply with Commonwealth Fraud Control Guidelines.

ACIAR's fraud control plan is focused on raising awareness among staff, through fraud prevention training, fostering an ethical and professional working environment aligned with the APS Values

and APS Code of Conduct, and maintaining strong internal control and audit processes that reduce fraud risks.

The Audit Committee is responsible for overseeing implementation of the fraud control plan. The plan is brought to the attention of new staff as part of ACIAR's induction process and is available electronically to all staff.

The CEO's Fraud Compliance Statement follows.

## Reports by the Auditor General and the ANAO

One ACIAR-specific audit, of the 2012-13 financial statements, was completed in 2012-13, which was unmodified.

Through its Audit Committee the Centre examines any relevant findings and recommendations of relevant Australian National Audit Office (ANAO) reports for their applicability to ACIAR.



**2 October 2013**

**Statement by the Chief Executive Officer: Certification of compliance with the Commonwealth Fraud Control Guidelines 2011**

I, Nick Austin, certify that I am satisfied that for 2012-13, the Australian Centre for International Agricultural Research had in place:

- fraud risk assessments and a fraud control plan; and
- appropriate fraud prevention, detection, investigation, reporting and data collection procedures and processes

that met the specific needs of the agency and complied with the Commonwealth Fraud Control Guidelines 2011.

Signed:

Nick Austin  
Chief Executive Officer

**ACIAR**

Research that works for developing  
countries and Australia

[www.aciar.gov.au](http://www.aciar.gov.au)

## Chief Finance Officer's review

ACIAR's operations are split between administered and departmental activity. Departmental activities involve the use of assets, liabilities, income and expenses controlled or incurred by ACIAR in its own right (costs of running the business).

Administered activities involve the management or oversight by ACIAR, on behalf of the Government, of items controlled or incurred by the Government (program delivery).

The Agency's departmental and administered activity is segregated in the financial statements.

## Departmental Activity

The net operating result for 2012-13 was a deficit of \$0.276 million (2011-12: deficit \$0.250 million). The deficit arises due to the fact that funds appropriated for capital purposes are credited directly to reserves whereas depreciation and amortisation and other asset write downs of capital items are expensed. Excluding depreciation and amortisation and other asset write-downs a break-even outcome was achieved (2011-12: surplus \$0.040 million).

Revenue was mainly a direct appropriation of \$10,440 million (2011-12: \$9.913 million) supplemented by other income of \$0.443 million (2011-12: \$0.028 million). Other income is mostly fees derived for the management of research monies received under separate agreements or records of understanding with external parties. The main components of departmental expenditure (\$11.159 million) were staff costs \$7.166 million, operating expenses (e.g. property expenses, travel, IT, communications, etc), \$3.717 million and depreciation and amortisation of assets of \$0.276 million.

## Administered Activity

Total administered funds appropriated to ACIAR for 2012-13 was \$82.332 million (2011-12 \$78,881 million). 2012-13 appropriated funds were fully utilised. ACIAR received an additional \$28.053 million (2011-12 \$37,468 million) under separate agreements or records of understanding with external parties.

Total program expenditure for 2012-13 was \$112,894 million (2011-12: \$103,235 million). This included \$30,624 million (2011-12: \$24,410 million) expenditure of monies received under separate agreements or records of understanding with external parties (mainly AusAID).

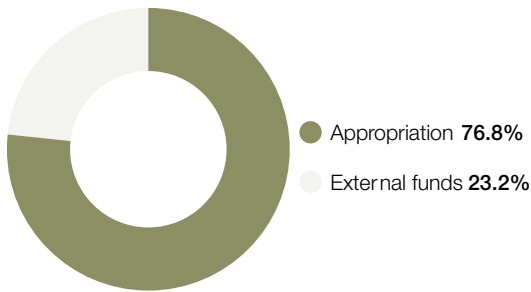
The pie charts below present a summary picture of total departmental and administered revenue and expenditure for 2012-13 compared to 2011-12. Administered revenue for included in appropriation revenue is the non-lapsing portion of the total available administered appropriations as approved by Government.

## Accounting policies

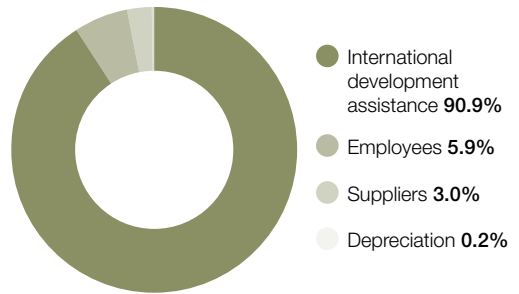
ACIAR complies with relevant accounting standards, legislation and the Finance Minister's Orders.

# ACIAR revenue and expenditure

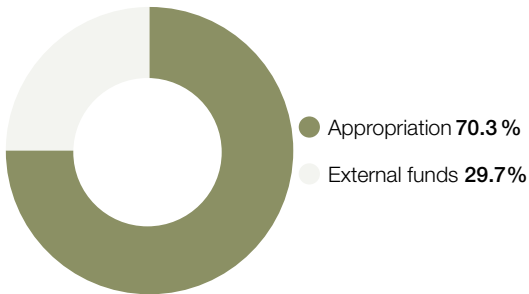
ACIAR revenue 2012–13



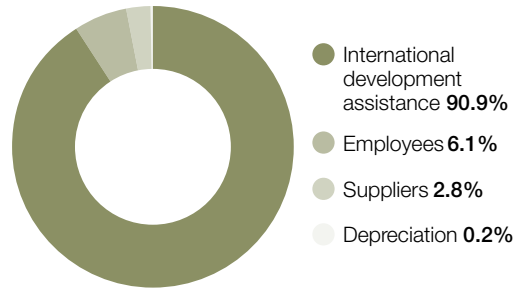
ACIAR expenditure 2012–13



ACIAR revenue 2011–12

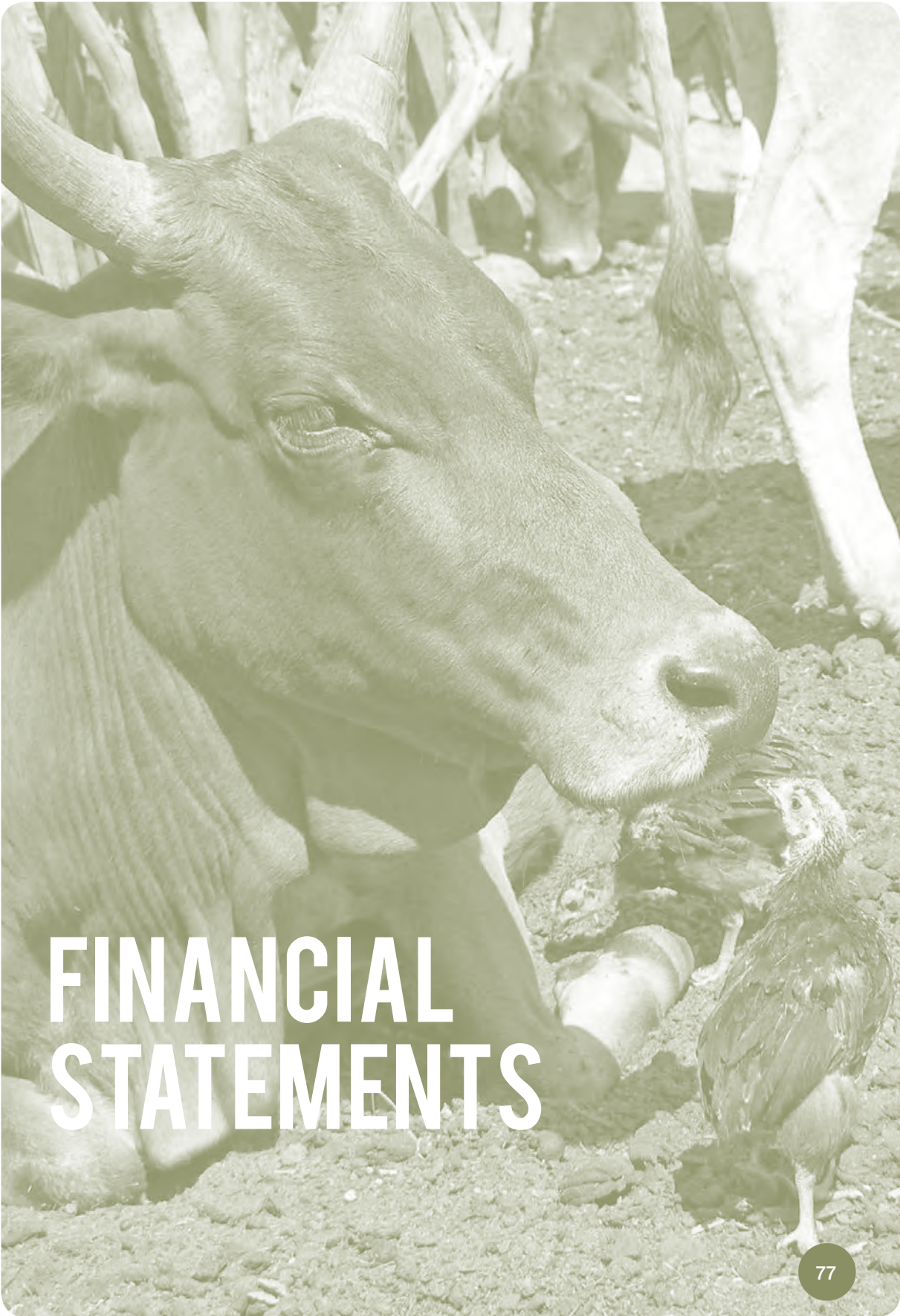


ACIAR expenditure 2011–12









# FINANCIAL STATEMENTS

# Independent Auditor's Report



## INDEPENDENT AUDITOR'S REPORT

### To the Minister for Foreign Affairs and Trade

I have audited the accompanying financial statements of the Australian Centre for International Agricultural Research for the year ended 30 June 2013, which comprise: a Statement by the Chief Executive and Chief Financial Officer; Statement of Comprehensive Income; Balance Sheet; Statement of Changes in Equity; Cash Flow Statement; Schedule of Commitments; Administered Schedule of Comprehensive Income; Administered Schedule of Assets and Liabilities; Administered Reconciliation Schedule; Administered Cash Flow Statement; Schedule of Administered Commitments; and Notes comprising a Summary of Significant Accounting Policies and other explanatory information.

#### *Chief Executive's Responsibility for the Financial Statements*

The Chief Executive of the Australian Centre for International Agricultural Research is responsible for the preparation of financial statements that give a true and fair view in accordance with the Finance Minister's Orders made under the *Financial Management and Accountability Act 1997*, including the Australian Accounting Standards, and for such internal control as is necessary to enable the preparation of the financial statements that give a true and fair view and are free from material misstatement, whether due to fraud or error.

#### *Auditor's Responsibility*

My responsibility is to express an opinion on the financial statements based on my audit. I have conducted my audit in accordance with the Australian National Audit Office Auditing Standards, which incorporate the Australian Auditing Standards. These auditing standards require that I comply with relevant ethical requirements relating to audit engagements and plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgement, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the Australian Centre for International Agricultural Research's preparation of the financial statements that give a true and fair view in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Australian Centre for International Agricultural Research's internal control. An audit also includes evaluating the appropriateness of the accounting policies used and the reasonableness of accounting estimates made by the Chief Executive of the

GPO Box 707 CANBERRA ACT 2601  
19 National Circuit BARTON ACT 2600  
Phone (02) 6203 7300 Fax (02) 6203 7777

Australian Centre for International Agricultural Research, as well as evaluating the overall presentation of the financial statements.

I believe that the audit evidence I have obtained is sufficient and appropriate to provide a basis for my audit opinion.

***Independence***

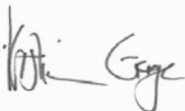
In conducting my audit, I have followed the independence requirements of the Australian National Audit Office, which incorporate the requirements of the Australian accounting profession.

***Opinion***

In my opinion, the financial statements of the Australian Centre for International Agricultural Research:

- (a) have been prepared in accordance with the Finance Minister's Orders made under the *Financial Management and Accountability Act 1997*, including the Australian Accounting Standards; and
- (b) give a true and fair view of the matters required by the Finance Minister's Orders including the Australian Centre for International Agricultural Research's financial position as at 30 June 2013 and of its financial performance and cash flows for the year then ended.

Australian National Audit Office



Kristian Gage  
Audit Principal

Delegate of the Auditor-General

Canberra

12 September 2013

# Statement by the Chief Executive Officer and Chief Finance Officer

**AUSTRALIAN CENTRE FOR INTERNATIONAL AGRICULTURAL RESEARCH**

**STATEMENT BY THE CHIEF EXECUTIVE OFFICER AND CHIEF FINANCE OFFICER**

In our opinion, the attached financial statements for the year ended 30 June 2013 are based on properly maintained financial records and give a true and fair view of the matters required by the Finance Minister's Orders made under the *Financial Management and Accountability Act 1997*, as amended.

  
Signed.....

Nick Austin  
Chief Executive Officer

12 September 2013

  
Signed.....

Albert Blair  
Chief Finance Officer

12 September 2013

**STATEMENT OF COMPREHENSIVE INCOME**  
*for the period ended 30 June 2013*

	Notes	2013 \$'000	2012 \$'000
<b>EXPENSES</b>			
Employee benefits	3A	7,166	6,750
Supplier	3B	3,717	3,184
Depreciation and amortisation	3C	276	254
Losses from asset sales	3D	-	3
<b>Total expenses</b>		<b>11,159</b>	<b>10,191</b>
<b>LESS:</b>			
<b>OWN-SOURCE INCOME</b>			
<b>Own-source revenue</b>			
Sale of goods and rendering of services	4A	404	5
<b>Total own-source revenue</b>		<b>404</b>	<b>5</b>
<b>Gains</b>			
Sale of assets	4B	16	-
Other gains	4C	23	23
<b>Total gains</b>		<b>39</b>	<b>23</b>
<b>Total own-source income</b>		<b>443</b>	<b>28</b>
<b>Net cost of services</b>		<b>10,716</b>	<b>10,163</b>
Revenue from Government	4D	10,440	9,913
<b>(Deficit)</b>		<b>(276)</b>	<b>(250)</b>
<b>OTHER COMPREHENSIVE INCOME</b>			
Changes in asset revaluation surplus		-	-
<b>Total other comprehensive income</b>		<b>-</b>	<b>-</b>
<b>Total comprehensive (loss) income</b>		<b>(276)</b>	<b>(250)</b>

The above statement should be read in conjunction with the accompanying notes.

**BALANCE SHEET***as at 30 June 2013*

	Notes	2013 \$'000	2012 \$'000
<b>ASSETS</b>			
<b>Financial Assets</b>			
Cash and cash equivalents	5A	62	69
Trade and other receivables	5B	3,430	3,479
<b>Total financial assets</b>		<u>3,492</u>	<u>3,548</u>
<b>Non-Financial Assets</b>			
Land and buildings	6A,C	462	398
Property, plant and equipment	6B,C	540	515
Intangibles	6D,E	174	157
Other non-financial assets	6F	69	132
<b>Total non-financial assets</b>		<u>1,245</u>	<u>1,202</u>
<b>Total assets</b>		<u>4,737</u>	<u>4,750</u>
<b>LIABILITIES</b>			
<b>Payables</b>			
Suppliers	7A	190	75
Other payables	7B	277	475
<b>Total payables</b>		<u>467</u>	<u>550</u>
<b>Provisions</b>			
Employee provisions	8A	1,852	1,906
<b>Total provisions</b>		<u>1,852</u>	<u>1,906</u>
<b>Total liabilities</b>		<u>2,319</u>	<u>2,456</u>
<b>Net assets</b>		<u>2,418</u>	<u>2,294</u>
<b>EQUITY</b>			
<b>Parent Entity Interest</b>			
Retained surplus		479	755
Reserves		708	708
Contributed equity		1,231	831
<b>Total equity</b>		<u>2,418</u>	<u>2,294</u>

The above statement should be read in conjunction with the accompanying notes.

**STATEMENT OF CHANGES IN EQUITY**  
for the period ended 30 June 2013

	Retained earnings		Asset revaluation surplus		Contributed equity/capital		Total equity	
	2013	2012	2013	2012	2013	2012	2013	2012
	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
<b>Opening balance</b>								
Balance carried forward from previous period	755	1,005	708	708	831	315	2,294	2,028
Adjustment for errors	-	-	-	-	-	-	-	-
Adjustment for changes in accounting policies	-	-	-	-	-	-	-	-
<b>Adjusted opening balance</b>	<b>755</b>	<b>1,005</b>	<b>708</b>	<b>708</b>	<b>831</b>	<b>315</b>	<b>2,294</b>	<b>2,028</b>
<b>Comprehensive income</b>								
Other comprehensive income	-	-	-	-	-	-	-	-
(Deficit) for the period	(276)	(250)	n/a	n/a	n/a	n/a	(276)	(250)
<b>Total comprehensive income</b>	<b>(276)</b>	<b>(250)</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>(276)</b>	<b>(250)</b>
<b>Transactions with owners</b>								
<b>Contributions by owners</b>								
Departmental capital budget	-	-	-	-	254	316	254	316
Equity injection - Appropriation	-	-	-	-	146	200	146	200
<b>Sub-total transactions with owners</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>400</b>	<b>516</b>	<b>400</b>	<b>516</b>
<b>Closing balance as at 30 June</b>	<b>479</b>	<b>755</b>	<b>708</b>	<b>708</b>	<b>1,231</b>	<b>831</b>	<b>2,418</b>	<b>2,294</b>

The above statement should be read in conjunction with the accompanying notes.

## CASH FLOW STATEMENT

for the period ended 30 June 2013

	Notes	2013 \$'000	2012 \$'000
<b>OPERATING ACTIVITIES</b>			
<b>Cash received</b>			
Appropriations		10,423	9,623
Sales of goods and rendering of services		404	5
Net GST received		73	463
<b>Total cash received</b>		<b>10,900</b>	<b>10,091</b>
<b>Cash used</b>			
Employees		7,089	6,391
Suppliers		3,834	3,762
<b>Total cash used</b>		<b>10,923</b>	<b>10,153</b>
<b>Net cash (used by) operating activities</b>	9	<b>(23)</b>	<b>(62)</b>
<b>INVESTING ACTIVITIES</b>			
<b>Cash received</b>			
Appropriations - departmental capital budget		221	391
- equity injection		146	40
Proceeds from sales of property, plant and equipment		16	-
<b>Total cash received</b>		<b>383</b>	<b>431</b>
<b>Cash used</b>			
Purchase of property, plant and equipment		324	249
Purchase of intangibles		43	103
<b>Total cash used</b>		<b>367</b>	<b>352</b>
<b>Net cash from investing activities</b>		<b>16</b>	<b>79</b>
<b>Net (decrease) increase in cash held</b>		<b>(7)</b>	<b>17</b>
Cash and cash equivalents at the beginning of the reporting period		69	52
<b>Cash and cash equivalents at the end of the reporting period</b>	5A	<b>62</b>	<b>69</b>

The above statement should be read in conjunction with the accompanying notes.



## SCHEDULE OF COMMITMENTS

as at 30 June 2013

BY TYPE	2013 \$'000	2012 \$'000
<b>Commitments receivable</b>		
Net GST recoverable on commitments <sup>1</sup>	(29)	(76)
<b>Total commitments receivable</b>	<u>(29)</u>	<u>(76)</u>
<b>Commitments payable</b>		
<b>Capital commitments<sup>2</sup></b>		
Land and buildings	73	219
<b>Total capital commitments</b>	<u>73</u>	<u>219</u>
<b>Other commitments</b>		
Operating leases <sup>3</sup>	1,018	1,651
Other <sup>4</sup>	134	74
<b>Total other commitments</b>	<u>1,152</u>	<u>1,725</u>
<b>Total commitments payable</b>	<u>1,225</u>	<u>1,944</u>
<b>Net commitments by type</b>	<u>1,196</u>	<u>1,868</u>
<b>BY MATURITY</b>		
<b>Commitments receivable</b>		
<b>Other commitments receivable</b>		
One year or less	(28)	(56)
From one to five years	(1)	(20)
<b>Total other commitments receivable</b>	<u>(29)</u>	<u>(76)</u>
<b>Total commitments receivable</b>	<u>(29)</u>	<u>(76)</u>
<b>Commitments payable</b>		
<b>Capital commitments</b>		
One year or less	73	146
From one to five years	-	73
<b>Total capital commitments</b>	<u>73</u>	<u>219</u>
<b>Operating lease commitments</b>		
One year or less	434	784
From one to five years	578	839
Over five years	6	28
<b>Total operating lease commitments</b>	<u>1,018</u>	<u>1,651</u>
<b>Other commitments</b>		
One year or less	118	52
From one to five years	16	22
<b>Total other commitments</b>	<u>134</u>	<u>74</u>
<b>Total commitments payable</b>	<u>1,225</u>	<u>1,944</u>
<b>Net commitments by maturity</b>	<u>1,196</u>	<u>1,868</u>

Notes:

<sup>1</sup>Commitments are GST inclusive where relevant.

<sup>2</sup>Capital commitments are commitments relating to an overseas office fitout.

<sup>3</sup>Operating leases are effectively non-cancellable and comprise:

- lease of office accommodation in Canberra and overseas, and
- lease of a motor vehicle.

<sup>4</sup>Other commitments include commitments relating to the purchase of IT services and general office services.

The above schedule should be read in conjunction with the accompanying notes.

**ADMINISTERED SCHEDULE OF COMPREHENSIVE INCOME***for the period ended 30 June 2013*

	Notes	2013 \$'000	2012 \$'000
<b>EXPENSES</b>			
International development assistance	15	112,894	103,235
<b>Total expenses administered on behalf of Government</b>		<b>112,894</b>	<b>103,235</b>
<b>LESS:</b>			
<b>OWN-SOURCE INCOME</b>			
<b>Own-source revenue</b>			
<b>Non-taxation revenue</b>			
External funds	16	28,053	37,468
<b>Total non-taxation revenue</b>		<b>28,053</b>	<b>37,468</b>
<b>Total own-source revenue administered on behalf of Government</b>		<b>28,053</b>	<b>37,468</b>
<b>Net cost of services</b>		<b>84,841</b>	<b>65,767</b>
<b>(Deficit) before income tax on continuing operations</b>		<b>(84,841)</b>	<b>(65,767)</b>
Income tax expense		-	-
<b>(Deficit) after income tax on continuing operations</b>		<b>(84,841)</b>	<b>(65,767)</b>
<b>(Deficit) after income tax</b>		<b>(84,841)</b>	<b>(65,767)</b>
<b>OTHER COMPREHENSIVE INCOME</b>			
<b>Total other comprehensive income before income tax</b>		<b>-</b>	<b>-</b>
Income tax expense - other comprehensive income		-	-
<b>Total other comprehensive income after income tax</b>		<b>-</b>	<b>-</b>
<b>Total comprehensive (loss)</b>		<b>(84,841)</b>	<b>(65,767)</b>

The above schedule should be read in conjunction with the accompanying notes.

**ADMINISTERED SCHEDULE OF ASSETS AND LIABILITIES***as at 30 June 2013*

	Notes	2013 \$'000	2012 \$'000
<b>ASSETS</b>			
<b>Financial assets</b>			
Cash and cash equivalents	17A	21,177	24,326
Trade and other receivables	17B	1,652	1,403
<b>Total financial assets</b>		<b>22,829</b>	<b>25,729</b>
<b>Non-financial assets</b>			
Other non-financial assets	18	15	30
<b>Total non-financial assets</b>		<b>15</b>	<b>30</b>
<b>Total assets administered on behalf of Government</b>		<b>22,844</b>	<b>25,759</b>
<b>LIABILITIES</b>			
<b>Payables</b>			
Suppliers	19A	1,950	721
Other payables	19B	484	1,360
<b>Total payables</b>		<b>2,434</b>	<b>2,081</b>
<b>Provisions</b>			
Employee provisions	20	12	1
<b>Total provisions</b>		<b>12</b>	<b>1</b>
<b>Total liabilities administered on behalf of Government</b>		<b>2,446</b>	<b>2,082</b>
<b>Net Assets</b>		<b>20,398</b>	<b>23,677</b>

The above schedule should be read in conjunction with the accompanying notes.

**ADMINISTERED RECONCILIATION SCHEDULE**

	2013	2012
	\$'000	\$'000
<b>Opening administered assets less administered liabilities as at 1 July</b>	<b>23,677</b>	10,131
Adjustment for change in accounting policies	-	-
Adjustment for errors	-	-
<b>Adjusted opening administered assets less administered liabilities</b>	<b>23,677</b>	10,131
Surplus (deficit) items:		
Plus: Administered income	<b>28,053</b>	37,468
Less: Administered expenses	<b>(112,894)</b>	(103,235)
Administered transfers to/from Australian Government:		
Appropriation transfers from OPA:		
Annual appropriations for administered expenses	<b>81,562</b>	79,313
<b>Closing administered assets less administered liabilities as at 30 June</b>	<b>20,398</b>	23,677

**ADMINISTERED CASH FLOW STATEMENT***for the period ended 30 June 2013*

	Notes	2013 \$'000	2012 \$'000
<b>OPERATING ACTIVITIES</b>			
<b>Cash received</b>			
External funds		26,993	38,186
Net GST received		5,338	4,301
<b>Total cash received</b>		<u>32,331</u>	<u>42,487</u>
<b>Cash used</b>			
International development assistance		(116,163)	(108,983)
<b>Total cash used</b>		<u>(116,163)</u>	<u>(108,983)</u>
<b>Net cash flows (used by) operating activities</b>	21	<u>(83,832)</u>	<u>(66,496)</u>
Cash and cash equivalents at the beginning of the reporting period		24,326	10,866
Cash from Official Public Account for:			
-Appropriations		86,051	84,279
		<u>86,051</u>	<u>84,279</u>
Cash to Official Public Account for:			
- Appropriations		(5,368)	(4,323)
		<u>(5,368)</u>	<u>(4,323)</u>
<b>Cash and cash equivalents at the end of the reporting period</b>	17A	<u>21,177</u>	<u>24,326</u>

This schedule should be read in conjunction with the accompanying notes.

**SCHEDULE OF ADMINISTERED COMMITMENTS***as at 30 June 2013*

	2013	2012
	\$'000	\$'000
<b>BY TYPE</b>		
<b>Commitments receivable</b>		
Net GST recoverable on commitments <sup>1</sup>	(8,457)	(7,348)
<b>Total commitments receivable</b>	<u>(8,457)</u>	<u>(7,348)</u>
<b>Commitments payable</b>		
<b>Other commitments</b>		
International development assistance <sup>2</sup>	124,511	112,122
<b>Total other commitments</b>	<u>124,511</u>	<u>112,122</u>
<b>Total commitments payable</b>	<u>124,511</u>	<u>112,122</u>
<b>Net commitments by type</b>	<u>116,054</u>	<u>104,774</u>
<b>BY MATURITY</b>		
<b>Commitments receivable</b>		
<b>Other commitments receivable</b>		
One year or less	(3,976)	(3,371)
From one to five years	(4,481)	(3,977)
<b>Total other commitment receivable</b>	<u>(8,457)</u>	<u>(7,348)</u>
<b>Total commitments receivable</b>	<u>(8,457)</u>	<u>(7,348)</u>
<b>Commitments payable</b>		
<b>Other commitments</b>		
One year or less	58,397	54,450
From one to five years	66,114	57,672
<b>Total other commitments</b>	<u>124,511</u>	<u>112,122</u>
<b>Total commitments payable</b>	<u>124,511</u>	<u>112,122</u>
<b>Net commitments by maturity</b>	<u>116,054</u>	<u>104,774</u>

Note:

<sup>1</sup> Commitments are GST inclusive where relevant.<sup>2</sup> Other commitments include commitments related to international development assistance projects and contracts.

The above schedule should be read in conjunction with the accompanying notes.

## **Table of contents - Notes**

Note 1: Summary of Significant Accounting Policies
Note 2: Events After the Reporting Period
Note 3: Expenses
Note 4: Income
Note 5: Financial Assets
Note 6: Non-Financial Assets
Note 7: Payables
Note 8: Provisions
Note 9: Cash Flow Reconciliation
Note 10: Contingent Assets and Liabilities
Note 11: Senior Executive Remuneration
Note 12: Remuneration of Auditors
Note 13: Financial Instruments
Note 14: Financial Assets Reconciliation
Note 15: Administered - Expenses
Note 16: Administered - Income
Note 17: Administered - Financial Assets
Note 18: Administered - Non-Financial Assets
Note 19: Administered - Payables
Note 20: Administered - Provisions
Note 21: Administered - Cash Flow Reconciliation
Note 22: Administered - Contingent Assets and Liabilities
Note 23: Administered - Financial Instruments
Note 24: Administered - Financial Assets Reconciliation
Note 25: Appropriations
Note 26: Special Accounts
Note 26: Compensation and Debt Relief
Note 28: Reporting of Outcomes
Note 29: Net Cash Appropriation Arrangements

## Note 1: Summary of Significant Accounting Policies

### 1.1 Objectives of ACIAR

The Australian Centre for International Agricultural Research (ACIAR) is an Australian Government controlled entity. ACIAR is a not-for-profit entity. The objective of ACIAR is to achieve more productive and sustainable agricultural systems, for the benefit of developing countries and Australia, through international agricultural research partnerships. Developing countries are the major beneficiaries but there are also spin-offs for Australia. To achieve this objective, ACIAR facilitates and supports bilateral and multilateral research and development activities in a broad range of agricultural areas, including crops, animals, fisheries, forestry, land and water resources management, post-harvest technology, and economic studies of agricultural and natural resource utilisation.

ACIAR is structured to meet one outcome:

Outcome 1: To achieve more productive and sustainable agricultural systems for the benefit of developing countries and Australia through international agricultural research and training partnerships.

Although an increasing portion of ACIAR's revenue is from external sources, the continued existence of ACIAR in its present form and with its present programs is dependent on Government policy and on continuing funding by Parliament for ACIAR's administration and programs.

ACIAR activities contributing toward this outcome are classified as either departmental or administered. Departmental activities involve the use of assets, liabilities, income and expenses controlled or incurred by the entity in its own right. Administered activities involve the management or oversight by ACIAR, on behalf of the Government, of items controlled or incurred by the Government.

ACIAR conducts the following administered activity on behalf of the Government:

- International agriculture research and development.

### 1.2 Basis of Preparation of the Financial Statements

The financial statements are general purpose financial statements and are required by section 49 of the *Financial Management and Accountability Act 1997*.

The financial statements have been prepared in accordance with:

- a) Finance Minister's Orders (FMOs) for reporting periods ending on or after 1 July 2011; and
- b) Australian Accounting Standards and Interpretations issued by the Australian Accounting Standards Board (AASB) that apply for the reporting period.

The financial statements have been prepared on an accrual basis and in accordance with the historical cost convention, except for certain assets and liabilities at fair value. Except where stated, no allowance is made for the effect of changing prices on the results or the financial position.

The financial statements are presented in Australian dollars and values are rounded to the nearest thousand dollars unless otherwise specified.

Unless an alternative treatment is specifically required by an accounting standard or the FMOs, assets and liabilities are recognised in the balance sheet when and only when it is probable that future economic benefits will flow to ACIAR or a future sacrifice of economic benefits will be required and the amounts of the assets or liabilities can be reliably measured. However, assets and liabilities arising under executor contracts are not recognised unless required by an accounting standard. Liabilities and assets that are unrecognised are reported in the schedule of commitments or the schedule of contingencies.

Unless alternative treatment is specifically required by an accounting standard, income and expenses are recognised in the Statement of Comprehensive Income when and only when the flow, consumption or loss of economic benefits has occurred and can be reliably measured.

The Australian Government continues to have regard to developments in case law, including the High Court's most recent decision on Commonwealth expenditure in *Williams v Commonwealth* (2012) 288 ALR 410, as they contribute to the larger body of law relevant to the development of Commonwealth programs. In accordance with its general practice, the Government will continue to monitor and assess risk and decide on any appropriate actions to respond to risks of expenditure not being consistent with constitutional or other legal requirements.



### 1.3 Significant Accounting Judgements and Estimates

In the process of applying the accounting policies listed in this note, the entity has made the following judgement that has the most significant impact on the amounts recorded in the financial statements:

- Land and buildings and property, plant and equipment were revalued at 30 June 2011 to estimated fair value.

No accounting assumptions or estimates have been identified that have a significant risk of causing a material adjustment to carrying amounts of assets and liabilities within the next accounting period.

### 1.4 New Australian Accounting Standards

#### Adoption of New Australian Accounting Standard Requirements

No accounting standard has been adopted earlier than the application date as stated in the standard.

New standards/revised standards/interpretations/amending standards that were issued prior to the sign-off date and are applicable to the current reporting period did not have a financial impact, and are not expected to have a future financial impact on ACIAR.

#### Future Australian Accounting Standard Requirements

New standards/revised standards/interpretations/amending standards that were issued by the Australian Accounting Standards Board prior to the sign-off date and are applicable to the future reporting period are not expected to have a financial impact on ACIAR.

### 1.5 Revenue

Revenue from the sale of goods is recognised when:

- a) the risks and rewards of ownership have been transferred to the buyer;
- b) ACIAR retains no managerial involvement or effective control over the goods;
- c) the revenue and transaction costs incurred can be reliably measured; and
- d) it is probable that the economic benefits associated with the transaction will flow to ACIAR.

Revenue from rendering of services is recognised by reference to the stage of completion of contracts at the reporting date. The revenue is recognised when:

- a) the amount of revenue, stage of completion and transaction costs incurred can be reliably measured; and
- b) the probable economic benefits associated with the transaction will flow to ACIAR.

The stage of completion of contracts at the reporting date is determined by reference to the proportion that costs incurred to date bear to the estimated total costs of the transaction.

Receivables for goods and services, which have 30 day terms, are recognised at the nominal amounts due less any impairment allowance account. Collectability of debts is reviewed at the end of reporting period. Allowances are made when collectability of the debt is no longer probable.

Interest revenue is recognised using the effective interest method as set out in AASB 139 *Financial Instruments: Recognition and Measurement*.

#### Revenue from Government

Amounts appropriated for departmental appropriations for the year (adjusted for any formal additions and reductions) are recognised as Revenue from Government when ACIAR gains control of the appropriation, except for certain amounts that relate to activities that are reciprocal in nature, in which case revenue is recognised only when it has been earned. Appropriations receivable are recognised at their nominal amounts.

### 1.6 Gains

#### Resources Received Free of Charge

Resources received free of charge are recognised as gains when, and only when, a fair value can be reliably determined and the services would have been purchased if they had not been donated. Use of those resources is recognised as an expense.

Resources received free of charge are recorded as either revenue or gains depending on their nature.

Contributions of assets at no cost of acquisition or for nominal consideration are recognised as gains at their fair value when the asset qualifies for recognition, unless received from another Government entity as a consequence of a restructuring of administrative arrangements.

### Sale of Assets

Gains from disposal of assets are recognised when control of the asset has passed to the buyer.

## **1.7 Transactions with the Government as Owner**

### Equity Injections

Amounts appropriated which are designated as 'equity injections' for a year (less any formal reductions) and Departmental Capital Budgets (DCBs) are recognised directly in contributed equity in that year.

## **1.8 Employee Benefits**

Liabilities for 'short-term employee benefits' (as defined in AASB 119 *Employee Benefits*) and termination benefits due within twelve months of the end of reporting period are measured at their nominal amounts.

The nominal amount is calculated with regard to the rates expected to be paid on settlement of the liability.

Other long-term employee benefits are measured as net total of the present value of the defined benefit obligation at the end of the reporting period minus the fair value at the end of the reporting period of plan assets (if any) out of which the obligations are to be settled directly.

### Leave

The liability for employee benefits includes provision for annual leave and long service leave. No provision has been made for sick leave as all sick leave is non-vesting and the average sick leave taken in future years by employees of ACIAR is estimated to be less than the annual entitlement for sick leave.

The leave liabilities are calculated on the basis of employees' remuneration at the estimated salary rates that will be applied at the time the leave is taken, including ACIAR's employer superannuation contribution rates to the extent that the leave is likely to be taken during service rather than paid out on termination.

The liability for long service leave has been determined by reference to the shorthand method. The estimate of the present value of the liability takes into account attrition rates and pay increases through promotion and inflation.

### Separation and Redundancy

Provision is made for separation and redundancy benefit payments. ACIAR recognises a provision for termination when it has developed a detailed formal plan for the terminations and has informed those employees affected that it will carry out the terminations.

### Superannuation

Staff of ACIAR are members of the Commonwealth Superannuation Scheme (CSS), the Public Sector Superannuation Scheme (PSS) the PSS accumulation plan (PSSap) or an approved superannuation scheme of their choice.

The CSS and PSS are defined benefit schemes for the Australian Government. The PSSap and all other approved superannuation schemes are defined contribution schemes.

The liability for defined benefits is recognised in the financial statements of the Australian Government and is settled by the Australian Government in due course. This liability is reported in the Department of Finance and Deregulation's administered schedules and notes.

For CSS, PSS and PSSap members, ACIAR makes employer contributions to the employees' superannuation scheme at rates determined by an actuary to be sufficient to meet the current cost to the Government. ACIAR accounts for the contributions as if they were contributions to defined contribution plans. For all other approved superannuation schemes, ACIAR, as employer, contributes a minimum of 9% of superannuable salaries.

The liability for superannuation recognised as at 30 June represents outstanding contributions for the final fortnight of the year.

## 1.9 Leases

A distinction is made between finance leases and operating leases. Finance leases effectively transfer from the lessor to the lessee substantially all the risks and rewards incidental to ownership of leased assets. An operating lease is a lease that is not a finance lease. In operating leases, the lessor effectively retains substantially all such risks and benefits.

ACIAR has no finance leases.

Operating lease payments are expensed on a straight-line basis which is representative of the pattern of benefits derived from the leased assets.

## 1.10 Cash

Cash is recognised at its nominal amount. Cash and cash equivalents includes:

- a) cash on hand;
- b) demand deposits in bank accounts with an original maturity of 3 months or less that are readily convertible to known amounts of cash and subject to insignificant risk of changes in value;
- c) cash held by outsiders; and
- d) cash in special accounts.

## 1.11 Financial Assets

ACIAR classifies its financial assets in the following categories:

- a) financial assets at fair value through profit or loss;
- b) held-to-maturity investments;
- c) available-for-sale financial assets; and
- d) loans and receivables.

The classification depends on the nature and purpose of the financial assets and is determined at the time of initial recognition. Financial assets are recognised and derecognised upon trade date.

### Effective Interest Method

The effective interest method is a method of calculating the amortised cost of a financial asset and of allocating interest income over the relevant period. The effective interest rate is the rate that exactly discounts estimated future cash receipts through the expected life of the financial asset, or, where appropriate, a shorter period.

Income is recognised on an effective interest rate basis except for financial assets that are recognised at fair value through profit or loss.

### Financial Assets at Fair Value Through Profit or Loss

Financial assets are classified as financial assets at fair value through profit or loss where the financial assets:

- a) have been acquired principally for the purpose of selling in the near future;
- b) are derivatives that are not designated and effective as a hedging instrument; or
- c) are parts of an identified portfolio of financial instruments that the entity manages together and has a recent actual pattern of short-term profit-taking.

Assets in this category are classified as current assets.

Financial assets at fair value through profit or loss are stated at fair value, with any resultant gain or loss recognised in profit or loss. The net gain or loss recognised in profit or loss incorporates any interest earned on the financial asset.

### Loans and Receivables

Trade receivables, loans and other receivables that have fixed or determinable payments that are not quoted in an active market are classified as 'loans and receivables'. Loans and receivables are measured at amortised cost using the effective interest method less impairment. Interest is recognised by applying the effective interest rate.

### Impairment of Financial Assets

Financial assets are assessed for impairment at the end of each reporting period.

*Financial assets held at amortised cost* - if there is objective evidence that an impairment loss has been incurred for loans and receivables or held to maturity investments held at amortised cost, the amount of the loss is measured as the difference between the asset's carrying amount and the present value of estimated future cash flows discounted at the asset's original effective interest rate. The carrying amount is reduced by way of an allowance account. The loss is recognised in the Statement of Comprehensive Income.

*Available for sale financial assets* - if there is objective evidence that an impairment loss on an available-for-sale financial asset has been incurred, the amount of the difference between its cost, less principal repayments and amortisation, and its current fair value, less any impairment loss previously recognised in expenses, is transferred from equity to the Statement of Comprehensive Income.

*Financial assets held at cost* - If there is objective evidence that an impairment loss has been incurred, the amount of the impairment loss is the difference between the carrying amount of the asset and the present value of the estimated future cash flows discounted at the current market rate for similar assets.

### **1.12 Financial Liabilities**

Financial liabilities are classified as either financial liabilities 'at fair value through profit or loss' or other financial liabilities. Financial liabilities are recognised and derecognised upon 'trade date'.

#### Financial Liabilities at Fair Value Through Profit or Loss

Financial liabilities at fair value through profit or loss are initially measured at fair value. Subsequent fair value adjustments are recognised in profit or loss. The net gain or loss recognised in profit or loss incorporates any interest paid on the financial liability.

#### Other Financial Liabilities

Other financial liabilities, including borrowings, are initially measured at fair value, net of transaction costs. These liabilities are subsequently measured at amortised cost using the effective interest method, with interest expense recognised on an effective yield basis.

The effective interest method is a method of calculating the amortised cost of a financial liability and of allocating interest expense over the relevant period. The effective interest rate is the rate that exactly discounts estimated future cash payments through the expected life of the financial liability, or, where appropriate, a shorter period.

Supplier and other payables are recognised at amortised cost. Liabilities are recognised to the extent that the goods or services have been received (and irrespective of having been invoiced).

### **1.13 Contingent Liabilities and Contingent Assets**

Contingent liabilities and contingent assets are not recognised in the balance sheet but are reported in the relevant schedules and notes. They may arise from uncertainty as to the existence of a liability or asset or represent an asset or liability in respect of which the amount cannot be reliably measured. Contingent assets are disclosed when settlement is probable but not virtually certain and contingent liabilities are disclosed when settlement is greater than remote.

### **1.14 Acquisition of Assets**

Assets are recorded at cost on acquisition except as stated below. The cost of acquisition includes the fair value of assets transferred in exchange and liabilities undertaken. Financial assets are initially measured at their fair value plus transaction costs where appropriate.

Assets acquired at no cost, or for nominal consideration, are initially recognised as assets and income at their fair value at the date of acquisition, unless acquired as a consequence of restructuring of administrative arrangements. In the latter case, assets are initially recognised as contributions by owners at the amounts at which they were recognised in the transferor's accounts immediately prior to the restructuring.

## 1.15 Property, Plant and Equipment

### Asset Recognition Threshold

Purchases of property, plant and equipment are recognised initially at cost in the balance sheet, except for purchases costing less than \$2,000, which are expensed in the year of acquisition (other than where they form part of a group of similar items which are significant in total).

The initial cost of an asset includes an estimate of the cost of dismantling and removing the item and restoring the site on which it is located.

### Revaluations

Fair values for each class of asset are determined as shown below:

Asset class	Fair value measurement
Leasehold improvements	Depreciated replacement cost
Plant and equipment	Market selling price

Following initial recognition at cost, property, plant and equipment assets are carried at fair value less subsequent accumulated depreciation and accumulated impairment losses. Valuations are conducted with sufficient frequency to ensure that the carrying amounts of assets do not differ materially from the assets' fair values as at the reporting date. The regularity of independent valuations depends upon the volatility of movements in market values for the relevant assets.

Leasehold improvements, plant and equipment assets were revalued at 30 June 2011. The revaluation process was performed by the Australian Valuation Office.

Revaluation adjustments are made on a class basis. Any revaluation increment is credited to equity under the heading of asset revaluation reserve except to the extent that it reverses a previous revaluation decrement of the same asset class that was previously recognised in the surplus/deficit. Revaluation decrements for a class of assets are recognised directly in the surplus/deficit except to the extent that they reverse a previous revaluation increment for that class.

Any accumulated depreciation as at the revaluation date is eliminated against the gross carrying amount of the asset and the asset restated to the revalued amount.

### Depreciation

Depreciable property, plant and equipment assets are written-off to their estimated residual values over their estimated useful lives to ACIAR using, in all cases, the straight-line method of depreciation.

Depreciation rates (useful lives), residual values and methods are reviewed at each reporting date and necessary adjustments are recognised in the current, or current and future reporting periods, as appropriate.

Depreciation rates applying to each class of depreciable asset are based on the following useful lives:

	2013	2012
Leasehold improvements	<b>Lower of useful life or lease term</b>	Lower of useful life or lease term
Plant and equipment	<b>3 to 10 years</b>	5 to 10 years
Computer equipment	<b>3 to 5 years</b>	3 to 5 years

### Impairment

All assets were assessed for impairment at 30 June 2013. Where indications of impairment exist, the asset's recoverable amount is estimated and an impairment adjustment made if the asset's recoverable amount is less than its carrying amount.

The recoverable amount of an asset is the higher of its fair value less costs to sell and its value in use. Value in use is the present value of the future cash flows expected to be derived from the asset. Where the future economic benefit of an asset is not primarily dependent on the asset's ability to generate future cash flows, and the asset would be replaced if ACIAR were deprived of the asset, its value in use is taken to be its depreciated replacement cost.

#### Derecognition

An item of property, plant and equipment is derecognised upon disposal or when no further future economic benefits are expected from its use or disposal.

#### **1.16 Intangibles**

ACIAR's intangibles comprise software for internal use. These assets are carried at cost less accumulated amortisation and accumulated impairment losses.

Software is amortised on a straight-line basis over its anticipated useful life. The useful lives of the ACIAR's software are 3 to 10 years (2012: 5 to 10 years).

All software assets were assessed for indications of impairment as at 30 June 2013.

#### **1.17 Taxation / Competitive Neutrality**

ACIAR is exempt from all forms of taxation except Fringe Benefits Tax (FBT) and the Goods and Services Tax (GST).

Revenues, expenses and assets are recognised net of GST except:

- a) where the amount of GST incurred is not recoverable from the Australian Taxation Office; and
- b) for receivables and payables.

#### **1.18 Compliance with Statutory Conditions for Payments from Consolidated Revenue**

Section 83 of the Constitution provides that no amount may be paid out of the Consolidated Revenue Fund except under an appropriation made by law. Based on advice received from the Department of Finance and Deregulation in 2010-11 an investigation was completed in 2011-12 and no issues of non-compliance with Section 83 were identified.

During 2012-13 additional legal advice was received that indicated there could be a breach of Section 83 under certain circumstances with payments for long service leave, goods and services tax and payments under determinations of the Remuneration Tribunal. ACIAR will review its processes and controls over payments for these items to minimise the possibility for future breaches as a result of these payments. ACIAR is not aware of any specific breaches of Section 83 in respect of these items.

### 1.19 Reporting of Administered Activities

Administered revenues, expenses, assets, liabilities and cash flows are disclosed in the administered schedules and related notes.

Except where otherwise stated below, administered items are accounted for on the same basis and using the same policies as for departmental items, including the application of Australian Accounting Standards.

#### Administered Cash Transfers to and from the Official Public Account

Revenue collected by ACIAR for use by the Government rather than ACIAR is administered revenue. Collections are transferred to the Official Public Account (OPA) maintained by the Department of Finance and Deregulation. Conversely, cash is drawn from the OPA to make payments under Parliamentary appropriation on behalf of Government. These transfers to and from the OPA are adjustments to the administered cash held by ACIAR on behalf of the Government and reported as such in the schedule of administered cash flows and in the administered reconciliation schedule.

#### Revenue

All administered revenues are revenues relating to ordinary activities performed by ACIAR on behalf of the Australian Government. As such, administered appropriations are not revenues of the individual entity that oversees distribution or expenditure of the funds as directed.

Revenue consists of external funds received in support of ACIAR's outcome. External funds are recognised as revenue when ACIAR obtains control over those funds.

#### Loans and Receivables

Where loans and receivables are not subject to concessional treatment, they are carried at amortised cost using the effective interest method. Gains and losses due to impairment, derecognition and amortisation are recognised through profit or loss.

#### International development assistance

ACIAR administers international development assistance programs and projects on behalf of the Government.

International development assistance liabilities are recognised to the extent that (i) the services required to be performed by the recipient have been performed or (ii) the contract eligibility criteria have been satisfied, but payments due have not been made. A commitment is recorded when the Government enters into an agreement to provide international development assistance but services have not been performed or criteria satisfied.

#### Prior Period Adjustment

ACIAR has revised the accounting treatment for the recognition of revenue received from external parties. ACIAR and external parties have entered into records of understanding or contracts for multi-year programs whereby external parties provide funding to ACIAR for the delivery of a range of activities. Previously, ACIAR recognised the revenue as unearned until the activity was undertaken in accordance with agreed activity schedules with external parties. It has now been determined that the revenue should have been recognised on receipt, as it is considered that the arrangements with external parties are non-reciprocal in nature, that is, external parties receive no direct benefit from the arrangement. ACIAR has changed its accounting treatment to recognise these amounts as revenue on receipt. This has required the restatement of 2012 balances as detailed in the following table:

	Previous Balance \$'000	Adjustment \$'000	Revised Balance \$'000
Own sourced revenue - external funds	24,410	13,058	37,468
Other payables	25,643	(24,283)	1,360

## **Note 2: Events After the Reporting Period**

### **Departmental**

On 5 August 2013, the Finance Minister determined a reduction in departmental appropriations and other departmental items (Equity Injections) following a request by the Minister for Foreign Affairs and Trade. The Instrument to Reduce Appropriations (No. 1 of 2013-14) reduces Appropriation Act (No. 1) 2012-2013 by \$37,000, and Appropriation Act (No. 2) 2012-2013 by \$158,000.

### **Administered**

There have been no events or transactions after the reporting date which could significantly affect the ongoing structure and financial activities of ACIAR.



### Note 3: Expenses

	2013	2012
	\$'000	\$'000
<b>Note 3A: Employee Benefits</b>		
Wages and salaries	5,535	5,147
Superannuation:		
Defined contribution plans	402	389
Defined benefit plans	497	381
Leave and other entitlements	699	833
Separation and redundancies	33	-
<b>Total employee benefits</b>	<b>7,166</b>	<b>6,750</b>
<b>Note 3B: Supplier</b>		
<b>Goods and services</b>		
Travel	547	434
Property	140	143
Information technology and management	605	421
Other	1,610	1,401
<b>Total goods and services</b>	<b>2,902</b>	<b>2,399</b>
<b>Goods and services are made up of:</b>		
Provision of goods – external parties	260	278
Rendering of services – related entities	192	209
Rendering of services – external parties	2,450	1,912
<b>Total goods and services</b>	<b>2,902</b>	<b>2,399</b>
<b>Other supplier expenses</b>		
Operating lease rentals – external parties:		
Minimum lease payments	739	721
Workers compensation expenses	76	64
<b>Total other supplier expenses</b>	<b>815</b>	<b>785</b>
<b>Total supplier expenses</b>	<b>3,717</b>	<b>3,184</b>
<b>Note 3C: Depreciation and Amortisation</b>		
<b>Depreciation:</b>		
Property, plant and equipment	135	121
Land and buildings	82	103
<b>Total depreciation</b>	<b>217</b>	<b>224</b>
<b>Amortisation:</b>		
Intangibles	59	30
<b>Total amortisation</b>	<b>59</b>	<b>30</b>
<b>Total depreciation and amortisation</b>	<b>276</b>	<b>254</b>
<b>Note 3D: Losses from Asset Sales</b>		
<b>Property, plant and equipment:</b>		
Carrying value of assets sold	-	3
<b>Total losses from asset sales</b>	<b>-</b>	<b>3</b>

## Note 4: Income

	2013	2012
	\$'000	\$'000

### Note 4A: Sale of Goods and Rendering of Services

Provision of goods - external parties	4	5
Rendering of services - external parties	400	-
<b>Total sale of goods and rendering of services</b>	<b>404</b>	<b>5</b>

### GAINS

#### Note 4B: Sale of Assets

##### **Property, plant and equipment:**

Proceeds from sale	16	-
Carrying value of assets sold	-	-
<b>Net gain from sale of assets</b>	<b>16</b>	<b>-</b>

#### Note 4C: Other Gains

Resources received free of charge	23	23
<b>Total other gains</b>	<b>23</b>	<b>23</b>

### REVENUE FROM GOVERNMENT

#### Note 4D: Revenue from Government

##### **Appropriations**

Departmental appropriation	10,440	9,913
<b>Total revenue from Government</b>	<b>10,440</b>	<b>9,913</b>

## Note 5: Financial Assets

	2013	2012
	\$'000	\$'000
<b>Note 5A: Cash and Cash Equivalents</b>		
Cash on hand or on deposit	62	69
<b>Total cash and cash equivalents</b>	<b>62</b>	<b>69</b>
<b>Note 5B: Trade and Other Receivables</b>		
<b>Appropriations receivable</b>		
For existing programs	3,379	3,329
<b>Total appropriations receivable</b>	<b>3,379</b>	<b>3,329</b>
<b>Other receivables:</b>		
GST receivable from the Australian Taxation Office	51	-
Other	-	150
<b>Total other receivables</b>	<b>51</b>	<b>150</b>
<b>Total trade and other receivables</b>	<b>3,430</b>	<b>3,479</b>
<b>Receivables are expected to be recovered in:</b>		
No more than 12 months	3,430	3,479
More than 12 months	-	-
<b>Total trade and other receivables</b>	<b>3,430</b>	<b>3,479</b>
<b>Receivables are aged as follows:</b>		
Not overdue	3,430	3,479
Overdue by:		
0 to 30 days	-	-
31 to 60 days	-	-
61 to 90 days	-	-
More than 90 days	-	-
<b>Total receivables</b>	<b>3,430</b>	<b>3,479</b>

No indicators of impairment were found for trade and other receivables.

## Note 6: Non-Financial Assets

	2013 \$'000	2012 \$'000
<b>Note 6A: Land and Buildings</b>		
<b>Leasehold improvements:</b>		
Work in progress	172	26
Fair value	475	475
Accumulated depreciation	(185)	(103)
<b>Total leasehold improvements</b>	<b>462</b>	<b>398</b>
<b>Total land and buildings</b>	<b>462</b>	<b>398</b>

No indicators of impairment were found for land and buildings.

No land or buildings were expected to be sold or disposed of within the next 12 months.

### **Note 6B: Property, Plant and Equipment**

#### **Property, plant and equipment:**

Fair value	788	636
Accumulated depreciation	(248)	(121)
<b>Total property, plant and equipment</b>	<b>540</b>	<b>515</b>

No indicators of impairment were found for property, plant and equipment.

No property, plant or equipment is expected to be sold or disposed of within the next 12 months.

#### **Revaluation of non-financial assets**

Revaluations were conducted in accordance with the revaluation policy stated at Note 1. Non-financial assets were revalued as at 30 June 2011 by an independent qualified valuer from the Australian Valuation Office.

**Note 6C: Reconciliation of the Opening and Closing Balances of Property, Plant and Equipment 2013**

	Land and buildings \$'000	Property, plant & equipment \$'000	Total \$'000
<b>As at 1 July 2012</b>			
Gross book value	501	636	1,137
Accumulated depreciation and impairment	(103)	(121)	(224)
<b>Net book value 1 July 2012</b>	<b>398</b>	<b>515</b>	<b>913</b>
Additions:			
By purchase	146	178	324
Depreciation expense	(82)	(135)	(217)
Asset reclassification	-	(18)	(18)
Disposals:			
Asset cost	-	(8)	(8)
Accumulated depreciation	-	8	8
<b>Net book value 30 June 2013</b>	<b>462</b>	<b>540</b>	<b>1,002</b>
<b>Net book value as of 30 June 2013 represented by:</b>			
Gross book value	647	788	1,435
Accumulated depreciation and impairment	(185)	(248)	(433)
<b>Net book value 30 June 2013</b>	<b>462</b>	<b>540</b>	<b>1,002</b>

**Note 6C: Reconciliation of the Opening and Closing Balances of Property, Plant and Equipment 2012**

	Land and buildings \$'000	Property, plant & equipment \$'000	Total \$'000
<b>As at 1 July 2011</b>			
Gross book value	471	420	891
Accumulated depreciation and impairment	-	-	-
<b>Net book value 1 July 2011</b>	<b>471</b>	<b>420</b>	<b>891</b>
Additions:			
By purchase	51	198	249
Depreciation expense	(103)	(121)	(224)
Asset reclassification	(21)	21	-
Disposals:			
Asset cost	-	(3)	(3)
Accumulated depreciation	-	-	-
<b>Net book value 30 June 2012</b>	<b>398</b>	<b>515</b>	<b>913</b>
<b>Net book value as of 30 June 2012 represented by:</b>			
Gross book value	501	636	1,137
Accumulated depreciation and impairment	(103)	(121)	(224)
<b>Net book value 30 June 2012</b>	<b>398</b>	<b>515</b>	<b>913</b>

	2013 \$'000	2012 \$'000
<b>Note 6D: Intangibles</b>		
<b>Computer software:</b>		
Purchased	637	561
Accumulated amortisation	(463)	(404)
<b>Total computer software</b>	<b>174</b>	<b>157</b>
<b>Total intangibles</b>	<b>174</b>	<b>157</b>

No indicators of impairment were found for intangible assets.

No intangibles are expected to be sold or disposed of within the next 12 months.

**Note 6E: Reconciliation of the Opening and Closing Balances of Intangibles 2013**

	Computer software purchased \$'000
<b>As at 1 July 2012</b>	
Gross book value	561
Accumulated amortisation and impairment	(404)
<b>Net book value 1 July 2012</b>	<b>157</b>
Additions	
By purchase	58
Amortisation	(59)
Asset reclassification	18
<b>Net book value 30 June 2013</b>	<b>174</b>
<b>Net book value as of 30 June 2013 represented by:</b>	
Gross book value	637
Accumulated amortisation and impairment	(463)
<b>Net book value 30 June 2013</b>	<b>174</b>

**Note 6E: Reconciliation of the Opening and Closing Balances of Intangibles 2012**

	Computer software purchased \$'000
<b>As at 1 July 2011</b>	
Gross book value	458
Accumulated amortisation and impairment	(374)
<b>Net book value 1 July 2011</b>	<b>84</b>
Additions	
By purchase	103
Amortisation	(30)
<b>Net book value 30 June 2012</b>	<b>157</b>
<b>Net book value as of 30 June 2012 represented by:</b>	
Gross book value	561
Accumulated amortisation and impairment	(404)
<b>Net book value 30 June 2012</b>	<b>157</b>

	<b>2013</b>	2012
	<b>\$'000</b>	\$'000
<b><u>Note 6F: Other Non-Financial Assets</u></b>		
Prepayments	<b>69</b>	132
<b>Total other non-financial assets</b>	<b><u>69</u></b>	<u>132</u>
<b>Total other non-financial assets - are expected to be recovered in:</b>		
No more than 12 months	<b>69</b>	132
<b>Total other non-financial assets</b>	<b><u>69</u></b>	<u>132</u>

No indicators of impairment were found for other non-financial assets.

## Note 7: Payables

	2013 \$'000	2012 \$'000
<b>Note 7A: Suppliers</b>		
Trade creditors and accruals	190	75
<b>Total supplier payables</b>	<b>190</b>	<b>75</b>
<b>Supplier payables expected to be settled within 12 months:</b>		
Related entities	9	31
External parties	181	44
<b>Total supplier payables</b>	<b>190</b>	<b>75</b>
Settlement was usually made within 30 days.		
<b>Note 7B: Other Payables</b>		
Wages and salaries	239	258
Superannuation	22	22
Rent payable	16	50
GST payable	-	145
<b>Total other payables</b>	<b>277</b>	<b>475</b>
<b>Total other payables are expected to be settled in:</b>		
No more than 12 months	277	460
More than 12 months	-	15
<b>Total other payables</b>	<b>277</b>	<b>475</b>



## Note 8: Provisions

	2013 \$'000	2012 \$'000
<b>Note 8A: Employee Provisions</b>		
Leave	1,668	1,664
Other	184	242
<b>Total employee provisions</b>	<b>1,852</b>	<b>1,906</b>
<b>Employee provisions are expected to be settled in:</b>		
No more than 12 months	532	489
More than 12 months	1,320	1,417
<b>Total employee provisions</b>	<b>1,852</b>	<b>1,906</b>

## Note 9: Cash Flow Reconciliation

	2013 \$'000	2012 \$'000
<b>Reconciliation of cash and cash equivalents as per Balance Sheet to Cash Flow Statement</b>		
<b>Cash and cash equivalents as per:</b>		
Cash flow statement	62	69
Balance sheet	<u>62</u>	<u>69</u>
<b>Difference</b>	<u>-</u>	<u>-</u>
<b>Reconciliation of net cost of services to net cash from operating activities:</b>		
Net cost of services	(10,716)	(10,163)
Add revenue from Government	10,440	9,913
<b>Adjustments for non-cash items</b>		
Depreciation / amortisation	276	254
(Gain) / loss on disposal of assets	(16)	3
<b>Changes in assets / liabilities</b>		
Decrease / (increase) in net receivables	67	(437)
Decrease in prepayments	63	74
(Decrease) / increase in employee provisions	(54)	486
Increase / (decrease) in supplier payables	81	(421)
(Decrease) / increase in other payables	<u>(164)</u>	<u>229</u>
<b>Net cash (used by) operating activities</b>	<u>(23)</u>	<u>(62)</u>

## **Note 10: Contingent Assets and Liabilities**

### **Quantifiable Contingencies**

At 30 June 2013, ACIAR had no quantifiable contingencies (2012: \$Nil).

### **Unquantifiable Contingencies**

At 30 June 2013, ACIAR had no unquantifiable contingencies (2012: Nil).

### **Significant Remote Contingencies**

At 30 June 2013, ACIAR had no significant remote contingencies (2012: Nil).

## Note 11: Senior Executive Remuneration

### Note 11A: Senior Executive Remuneration Expenses for the Reporting Period

	2013	2012
	\$	\$
<b>Short-term employee benefits:</b>		
Salary	389,242	378,429
Annual leave accrued	18,873	23,673
Performance bonuses	2,000	2,000
Allowances	85,406	83,241
<b>Total short-term employee benefits</b>	<u>495,521</u>	<u>487,343</u>
<b>Post-employment benefits:</b>		
Superannuation	47,977	45,903
<b>Total post-employment benefits</b>	<u>47,977</u>	<u>45,903</u>
<b>Other long-term employee benefits:</b>		
Long-service leave	7,677	19,853
<b>Total other long-term employee benefits</b>	<u>7,677</u>	<u>19,853</u>
<b>Total senior executive remuneration expenses</b>	<u>551,175</u>	<u>553,099</u>

*Notes:*

- Note 11A was prepared on an accrual basis .
- Note 11A excludes acting arrangements and part-year service where remuneration expensed for a senior executive was less than \$180,000. There were no acting arrangements or part year service in 2013 or 2012.

**Note 11B: Average Annual Reportable Remuneration Paid to Substantive Senior Executives During the Reporting Period**

		2013					
		Substantive senior executives No.	Reportable salary <sup>2</sup> \$	Contributed superannuation <sup>3</sup> \$	Reportable allowances <sup>4</sup> \$	Bonus paid <sup>5</sup> \$	Total \$
<b>Average annual reportable remuneration<sup>1</sup></b>							
<b>Total reportable remuneration (including part-time arrangements):</b>		1	152,774	23,010	22,780	2,000	200,564
\$180,000 to \$209,999							
\$300,000 to \$329,999		1	236,183	24,898	62,587	-	323,668
<b>Total number of substantive senior executives</b>		2					
		2012					
		Substantive senior executives No.	Reportable salary <sup>2</sup> \$	Contributed superannuation <sup>3</sup> \$	Reportable allowances <sup>4</sup> \$	Bonus paid <sup>5</sup> \$	Total \$
<b>Average annual reportable remuneration<sup>1</sup></b>							
<b>Total reportable remuneration (including part-time arrangements):</b>		1	143,972	22,339	23,967	2,000	192,278
\$180,000 to \$209,999							
\$330,000 to \$359,999		1	244,514	25,705	62,635	-	332,854
<b>Total number of substantive senior executives</b>		2					

**Notes:**

1. This table reports substantive senior executives who received remuneration during the reporting period. Each row is an averaged figure based on headcount for individuals in the band.
2. 'Reportable salary' includes the following:
  - a) gross payments (less any bonuses paid, which are separated out and disclosed in the 'bonus paid' column); and
  - b) reportable fringe benefits (at the net amount prior to 'grossing up' to account for tax benefits).
3. The 'contributed superannuation' amount is the average cost to ACIAR for the provision of superannuation benefits to other substantive senior executives in that reportable remuneration band during the reporting period.
4. 'Reportable allowances' are the average actual allowances paid as per the 'total allowances' line on individuals' payment summaries.
5. 'Bonus paid' represents average actual bonuses paid during the reporting period in that reportable remuneration band. The 'bonus paid' within a particular band may vary between financial years due to various factors such as individuals commencing with or leaving the entity during the financial year.

**Note 11C: Other Highly Paid Staff**

	2013					
Average annual reportable remuneration <sup>1</sup>	Other highly paid staff No.	Reportable salary <sup>2</sup> \$	Contributed superannuation <sup>3</sup> \$	Reportable allowances <sup>4</sup> \$	Bonus paid <sup>5</sup> \$	Total \$
Total remuneration (including part-time arrangements):						
\$180,000 to \$209,999	9	160,097	32,506	-	1,778	194,381
\$240,000 to \$269,999	1	195,354	44,837	-	2,000	242,191
<b>Total number of other highly paid staff</b>	<b>10</b>					

	2012					
Average annual reportable remuneration <sup>1</sup>	Other highly paid staff No.	Reportable salary <sup>2</sup> \$	Contributed superannuation <sup>3</sup> \$	Reportable allowances <sup>4</sup> \$	Bonus paid <sup>5</sup> \$	Total \$
Total remuneration (including part-time arrangements):						
\$180,000 to \$209,999	8	151,649	34,647	-	2,000	188,296
Total number of other highly paid staff	8					

**Notes:**

1. This table reports staff:
  - a) who were employed by ACIAR during the reporting period;
  - b) whose reportable remuneration was \$180,000 or more for the financial period; and
  - c) were not required to be disclosed in Tables A or B.
2. 'Reportable salary' includes the following:
  - a) gross payments (less any bonuses paid, which are separated out and disclosed in the 'bonus paid' column); and
  - b) reportable fringe benefits (at the net amount prior to 'grossing up' to account for tax benefits).
3. The 'contributed superannuation' amount is the average cost to ACIAR for the provision of superannuation benefits to other highly paid staff in that reportable remuneration band during the reporting period.
4. 'Reportable allowances' are the average actual allowances paid as per the 'total allowances' line on individuals' payment summaries.
5. 'Bonus paid' represents average actual bonuses paid during the reporting period in that reportable remuneration band. The 'bonus paid' within a particular band may vary between financial years due to various factors such as individuals commencing with or leaving the entity during the financial year.

## Note 12: Remuneration of Auditors

	2013	2012
	\$'000	\$'000
Financial statement audit services were provided free of charge to ACIAR by the Australian National Audit Office (ANAO).		

### Fair value of the services provided

Financial statement audit services	<u>23</u>	<u>23</u>
<b>Total</b>	<b><u>23</u></b>	<b><u>23</u></b>

No other services were provided by the auditors of the financial statements.

## Note 13: Financial Instruments

	2013	2012
	\$'000	\$'000
<b>Note 13A: Categories of Financial Instruments</b>		
<b>Financial Assets</b>		
Cash	62	69
<b>Loans and receivables:</b>		
Trade and other receivables	-	150
<b>Carrying amount of financial assets</b>	<b>62</b>	<b>219</b>
<b>Financial Liabilities</b>		
<b>At amortised cost:</b>		
Trade creditors	190	75
Other	16	50
<b>Carrying amount of financial liabilities</b>	<b>206</b>	<b>125</b>

The carrying amounts of financial assets and financial liabilities are a reasonable approximation of fair value.

There was no income or expense related to financial assets or liabilities (2012: \$nil).

### Note 13B: Credit Risk

ACIAR is exposed to minimal credit risk as loans and receivables are trade and other receivables. The maximum exposure to credit risk is the risk that arises from potential default of a debtor. This amount is equal to the total amount of trade and other receivables (2013: \$nil and 2012: \$150,000). ACIAR has assessed the risk of the default on payment and believes all amounts will be paid in full. No amounts have been allocated to an impairment allowance account.

ACIAR manages its credit risk by undertaking background and credit checks prior to allowing a debtor relationship. In addition, ACIAR has policies and procedures that guide employees debt recovery techniques that are to be applied.

ACIAR holds no collateral to mitigate against credit risk.

### Credit quality of financial instruments not past due or individually determined as impaired

	Not past due nor impaired	Not past due nor impaired	Past due or impaired	Past due or impaired
	2013	2012	2013	2012
	\$'000	\$'000	\$'000	\$'000
Trade and other receivables	-	150	-	-
<b>Total</b>	<b>-</b>	<b>150</b>	<b>-</b>	<b>-</b>

No assets have been individually assessed as impaired.



**Note 13C: Liquidity Risk**

ACIAR's financial liabilities are payables. The exposure to liquidity risk is based on the notion that ACIAR will encounter difficulty in meeting its obligations associated with financial liabilities.

There is low risk as ACIAR is appropriated funding from the Australian Government and manages its budgeted funds to ensure it has adequate funds to meet payments as they fall due. In addition, ACIAR has policies in place to ensure timely payments are made when due and has no past experience of default.

**Maturities for non-derivative financial liabilities 2013**

	On demand \$'000	within 1 year \$'000	1 to 2 years \$'000	2 to 5 years \$'000	> 5 years \$'000	Total \$'000
Trade creditors	-	190	-	-	-	190
Other payables	-	16	-	-	-	16
<b>Total</b>	-	206	-	-	-	206

**Maturities for non-derivative financial liabilities 2012**

	On demand \$'000	within 1 year \$'000	1 to 2 years \$'000	2 to 5 years \$'000	> 5 years \$'000	Total \$'000
Trade creditors	-	75	-	-	-	75
Other payables	-	35	15	-	-	50
<b>Total</b>	-	110	15	-	-	125

ACIAR has no derivative financial liabilities in either 2013 or 2012.

**Note 13D: Market Risk**

ACIAR holds basic departmental financial instruments that do not expose it to currency, interest rate or other price risk.

Credit terms for both receivables and payables are normally 30 days net.

## Note 14: Financial Assets Reconciliation

		2013	2012
		\$'000	\$'000
<b><u>Financial assets</u></b>	<b>Notes</b>		
<b>Total financial assets as per balance sheet</b>		<b>3,492</b>	3,548
Less: non-financial instrument components:			
Appropriations receivable	5B	3,379	3,329
GST receivable from the Australian Taxation Office	5B	<u>51</u>	<u>-</u>
Total non-financial instrument components		<u>62</u>	<u>219</u>
<b>Total financial assets as per financial instruments note</b>		<b><u>62</u></b>	<b><u>219</u></b>

**Note 15: Administered - Expenses**

	<b>2013</b>	2012
	<b>\$'000</b>	\$'000
<b><u>Note 15: International Development Assistance</u></b>		
Research program	<b>81,651</b>	74,450
Multilateral program	<b>23,083</b>	23,029
Education and training	<b>7,343</b>	5,066
Communicating research results	<b>817</b>	690
<b>Total international development assistance</b>	<b><u>112,894</u></b>	<u>103,235</u>
<b>International Development Assistance is made up of:</b>		
Employee benefits	<b>172</b>	131
Supplier expenses	<b><u>112,722</u></b>	<u>103,104</u>
<b>Total</b>	<b><u>112,894</u></b>	<u>103,235</u>

**Note 16: Administered - Income**

	<b>2013</b>	2012
	<b>\$'000</b>	\$'000
<b>OWN-SOURCE REVENUE</b>		
<b>Non-Taxation Revenue</b>		
<b><u>Note 16: External Funds</u></b>		
External funds– related entities	<b>27,914</b>	37,283
External funds – external parties	<b>139</b>	185
<b>Total external funds</b>	<b><u>28,053</u></b>	<u>37,468</u>

**Note 17: Administered - Financial Assets**

	2013 \$'000	2012 \$'000
<b>Note 17A: Cash and Cash Equivalents</b>		
Special Account	21,177	24,326
<b>Total cash and cash equivalents</b>	<b>21,177</b>	<b>24,326</b>
<b>Note 17B: Trade and Other Receivables</b>		
<b>External funds:</b>		
External funds receivable - related entities	1,048	-
<b>Total receivables for external funds</b>	<b>1,048</b>	<b>-</b>
<b>Other receivables:</b>		
GST receivable from Australian Taxation Office	604	1,403
<b>Total other receivables</b>	<b>604</b>	<b>1,403</b>
<b>Total trade and other receivables</b>	<b>1,652</b>	<b>1,403</b>
<b>Receivables are expected to be recovered in:</b>		
No more than 12 months	1,652	1,403
More than 12 months	-	-
<b>Total trade and other receivables</b>	<b>1,652</b>	<b>1,403</b>
<b>Receivables were aged as follows:</b>		
Not overdue	1,652	1,403
Overdue by:		
0 to 30 days	-	-
31 to 60 days	-	-
61 to 90 days	-	-
More than 90 days	-	-
<b>Total trade and other receivables</b>	<b>1,652</b>	<b>1,403</b>

No indicators of impairment were found for trade and other receivables.

Trade and other receivables credit terms were within 30 days (2012: 30 days).

**Note 18: Administered - Non-Financial Assets**

	2013 \$'000	2012 \$'000
<b><u>Note 18: Other Non-Financial Assets</u></b>		
Prepayments	15	30
<b>Total other non-financial assets</b>	<b>15</b>	<b>30</b>
<b>Total other non-financial assets are expected to be recovered in:</b>		
No more than 12 months	15	30
<b>Total other non-financial assets</b>	<b>15</b>	<b>30</b>
No indicators of impairment were found for other non-financial assets.		

**Note 19: Administered - Payables**

	2013	2012
	\$'000	\$'000
<b>Note 19A: Suppliers</b>		
Trade creditors and accruals	1,950	721
<b>Total suppliers</b>	<b>1,950</b>	<b>721</b>
<b>Supplier payables expected to be settled within 12 months:</b>		
Related entities	430	4
External parties	1,520	717
<b>Total suppliers</b>	<b>1,950</b>	<b>721</b>
Settlement was usually made within 30 days.		
<b>Note 19B: Other Payables</b>		
Unearned income	-	-
GST payable to OPA	476	1,355
Salaries and wages	7	4
Superannuation	1	1
<b>Total other payables</b>	<b>484</b>	<b>1,360</b>
<b>Total other payables are expected to be settled in:</b>		
No more than 12 months	484	1,360
<b>Total other payables</b>	<b>484</b>	<b>1,360</b>

**Note 20: Administered - Provisions**

	<b>2013</b>	2012
	<b>\$'000</b>	\$'000
<b><u>Note 20A: Employee Provisions</u></b>		
Leave	<u>12</u>	<u>1</u>
<b>Total employee provisions</b>	<b><u>12</u></b>	<b><u>1</u></b>
<b>Employee provisions are expected to be settled in:</b>		
No more than 12 months	<u>12</u>	<u>1</u>
<b>Total employee provisions</b>	<b><u>12</u></b>	<b><u>1</u></b>



**Note 21: Administered - Cash Flow Reconciliation**

	2013	2012
	\$'000	\$'000
<b>Reconciliation of cash and cash equivalents as per Administered Schedule of Assets and Liabilities to Administered Cash Flow Statement</b>		
<b>Cash and cash equivalents as per:</b>		
Schedule of administered cash flows	21,177	24,326
Schedule of administered assets and liabilities	21,177	24,326
<b>Difference</b>	<u>-</u>	<u>-</u>
<b>Reconciliation of net cost of services to net cash from operating activities:</b>		
Net cost of services	(84,841)	(65,767)
<b>Changes in assets / liabilities</b>		
(Increase) / decrease in net receivables	(249)	155
Decrease / (increase) in prepayments	15	(3)
Increase / (decrease) in employee provisions	11	(2)
Increase / (decrease) in supplier payables	1,229	(896)
Increase in other payables	3	17
<b>Net cash (used by) operating activities</b>	<u>(83,832)</u>	<u>(66,496)</u>

## **Note 22: Administered - Contingent Assets and Liabilities**

### **Quantifiable Contingencies**

At 30 June 2013, ACIAR had no quantifiable administered contingencies (2012: \$Nil).

### **Unquantifiable Contingencies**

At 30 June 2013, ACIAR had no unquantifiable administered contingencies (2012: Nil).

### **Significant Remote Contingencies**

At 30 June 2013, ACIAR had no significant remote administered contingencies (2012: Nil).

## Note 23: Administered - Financial Instruments

	2013	2012
	\$'000	\$'000
<b>Note 23A: Categories of Financial Instruments</b>		
<b>Financial Assets</b>		
Cash	21,177	24,326
<b>Loans and receivables:</b>		
Trade and other receivables	1,048	-
<b>Total</b>	<b>1,048</b>	<b>-</b>
<b>Carrying amount of financial assets</b>	<b>22,225</b>	<b>24,326</b>
<b>Financial Liabilities</b>		
Other liabilities:		
Trade creditors	1,950	721
<b>Total</b>	<b>1,950</b>	<b>721</b>
<b>Carrying amount of financial liabilities</b>	<b>1,950</b>	<b>721</b>

The carrying amounts of financial assets and financial liabilities are a reasonable approximation of fair value.

There was no income or expense related to financial assets or liabilities (2012:\$nil).

### Note 23B: Credit Risk

ACIAR is exposed to minimal credit risk as loans and receivables are external funds receivable. The maximum exposure to credit risk is the risk that arises from potential default of a debtor. This amount is equal to the total amount of external funds receivable (2013:\$1,048,167 and 2012: \$nil).

ACIAR manages its credit risk by undertaking background and credit checks prior to allowing a debtor relationship. In addition, ACIAR has policies and procedures that guide employees debt recovery techniques that are to be applied.

ACIAR holds no collateral to mitigate against credit risk.

### Credit quality of financial instruments not past due or individually determined as impaired

	Not Past Due Nor Impaired	Not Past Due Nor Impaired	Past due or impaired	Past due or impaired
	2013 \$'000	2012 \$'000	2013 \$'000	2012 \$'000
<b>Loans and receivables</b>				
Trade and other receivables	1,048	-	-	-
<b>Total</b>	<b>1,048</b>	<b>-</b>	<b>-</b>	<b>-</b>

No financial assets were past due but not impaired for 2013 (2012:\$nil).

No assets have been individually assessed as impaired.

**Note 23C: Liquidity Risk**

ACIAR's financial liabilities are payables. The exposure to liquidity risk is based on the notion that ACIAR will encounter difficulty in meeting its obligation associated with financial liabilities.

There is low risk as ACIAR is appropriated funding from the Australian Government and manages its budgeted funds to ensure it has adequate funds to meet payments as they fall due. In addition, ACIAR has policies in place to ensure timely payments are made when due and has no past experience of default.

**Maturities for non-derivative financial liabilities 2013**

	On demand \$'000	within 1 year \$'000	1 to 2 years \$'000	2 to 5 years \$'000	> 5 years \$'000	Total \$'000
<b>Other liabilities</b>						
Trade creditors	-	1,950	-	-	-	1,950
<b>Total</b>	-	1,950	-	-	-	1,950

**Maturities for non-derivative financial liabilities 2012**

	On demand \$'000	within 1 year \$'000	1 to 2 years \$'000	2 to 5 years \$'000	> 5 years \$'000	Total \$'000
<b>Other liabilities</b>						
Trade creditors	-	721	-	-	-	721
<b>Total</b>	-	721	-	-	-	721

ACIAR has no derivative financial liabilities in both the current and prior year.

**Note 23D: Market Risk**

ACIAR holds basic administered financial instruments that do not expose it to currency, interest rate or other price risk. Credit terms for both receivables and payables are normally 30 days net.

**Note 24: Administered Financial Assets Reconciliation**

		2013 \$'000	2012 \$'000
<b><u>Financial assets</u></b>	<b>Notes</b>		
<b>Total financial assets as per schedule of administered assets and liabilities</b>		<b>22,829</b>	25,729
Less: non-financial instrument components			
GST receivable from the Australian Taxation Office	17B	<b>604</b>	1,403
Total non-financial instrument components		<b>22,225</b>	24,326
<b>Total financial assets as per financial instruments note</b>		<b>22,225</b>	24,326

**Note 25: Appropriations**

Table A: Annual Appropriations ('Recoverable GST exclusive')

	2013 Appropriations							Appropriation applied in 2013 (current and prior years) \$'000	Variance \$'000
	Appropriation Act		FMA Act			Total appropriation \$'000			
	Annual Appropriation \$'000	Appropriations reduced <sup>1</sup> \$'000	AFM <sup>2</sup> \$'000	Section 30 \$'000	Section 31 \$'000		Section 32 \$'000		
<b>DEPARTMENTAL</b>									
Ordinary annual services	10,731	-	-	-	420	-	11,151	10,874	277
Other services	304	-	-	-	-	-	304	146	158
Equity									
<b>Total departmental</b>	11,035	-	-	-	420	-	11,455	11,020	435
<b>ADMINISTERED</b>									
Ordinary annual services	82,332	-	-	-	-	-	82,332	81,562	770
Administered items									
<b>Total administered</b>	82,332	-	-	-	-	-	82,332	81,562	770

**Notes:**

1. Appropriations reduced under Appropriation Acts (Nos. 1,3&5) 2012-13; sections 10, 11, and 12 and under Appropriation Acts (Nos. 2,4&6) 2012-13; sections 12,13, and 14. Departmental appropriations do not lapse at financial year-end. However, the responsible Minister may decide that part or all of a departmental appropriation is not required and request the Finance Minister to reduce that appropriation. The reduction in the appropriation is effected by the Finance Minister's determination and is disallowable by Parliament. The Finance Minister determined no reduction in departmental appropriation in 2012-13. On 5 August 2013, the Finance Minister determined a reduction in departmental appropriations and other departmental items (Equity Injections) following a request by the Minister for Foreign Affairs and Trade. The Instrument to Reduce Appropriations (No. 1 of 2013-14) reduces Appropriation Act (No. 1) 2012-2013 by \$37,000, and Appropriation Act (No. 2) 2012-2013 by \$158,000.

As with departmental appropriations, the responsible Minister may decide that part or all of an administered appropriation is not required and request that the Finance Minister reduce that appropriation. For administered appropriations reduced under section 11 of Appropriation Acts (Nos. 1,3&5) 2012-13 and section 12 of Appropriation Acts (Nos. 2,4&6) 2012-13, the appropriation is taken to be reduced to the required amount specified in Table D of this note once the annual report is tabled in Parliament. All administered appropriations may be adjusted by a Finance Minister's determination, which is disallowable by Parliament. The Finance Minister determined no reduction in administered appropriation in 2012-13.

2. Advance to the Finance Minister (AFM) - Appropriation Acts (Nos. 1,3&5) 2012-13; section 13 and Appropriation Acts (Nos. 2,4&6) 2012-13; section 15.

	2012 Appropriations							Appropriation applied in 2012 (current years) \$'000	Variance \$'000
	Appropriation Act		FMA Act						
	Annual Appropriation \$'000	Appropriations reduced <sup>1</sup> \$'000	AFM <sup>2</sup> \$'000	Section 30 \$'000	Section 31 \$'000	Section 32 \$'000	Total appropriation \$'000		
<b>DEPARTMENTAL</b>									
Ordinary annual services	9,913	-	-	-	5	-	9,918	9,756	162
Other services	200	-	-	-	-	-	200	40	160
Equity	10,113	-	-	-	5	-	10,118	9,796	322
<b>Total departmental</b>									
<b>ADMINISTERED</b>									
Ordinary annual services	78,881	(8)	-	-	-	-	78,873	79,304	(431)
Administered items	78,881	(8)	-	-	-	-	78,873	79,304	(431)
<b>Total administered</b>									

**Notes:**

1. Appropriations reduced under Appropriation Acts (Nos. 1 & 3) 2011-12; sections 10, 11, 12 and 15 and under Appropriation Acts (Nos. 2&4) 2011-12; sections 12, 13, 14 and 17.

Departmental appropriations do not lapse at financial year-end. However, the responsible Minister may decide that part or all of a departmental appropriation is not required and request the Finance Minister to reduce that appropriation. The reduction in the appropriation is effected by the Finance Minister's determination and is disallowable by Parliament. The Finance Minister determined no reduction in departmental appropriation in 2011-12.

As with departmental appropriations, the responsible Minister may decide that part or all of an administered appropriation is not required and request that the Finance Minister reduce that appropriation. For administered appropriations reduced under section 11 of Appropriation Acts (Nos. 1,3&5) 2011-12 and section 12 of Appropriation Acts (Nos. 2,4&6) 2011-12, the appropriation is taken to be reduced to the required amount specified in Table D of this note once the annual report is tabled in Parliament. All administered appropriations may be adjusted by a Finance Minister's determination, which is disallowable by Parliament. The Finance Minister determined no reduction in administered appropriation in 2011-12.

2. Advance to the Finance Minister (AFM) - Appropriation Acts (Nos. 1&3) 2011-12; section 13 and Appropriation Acts (Nos. 2&4) 2011-12; section 15.

Table B: Departmental and Administered Capital Budgets ('Recoverable GST exclusive')

	2013 Capital Budget Appropriations			Capital Budget Appropriations applied in 2013 (current and prior years)		
	<i>Appropriation Act</i>	<i>FMA Act</i>	Total Capital Budget Appropriations	Payments for non-financial assets <sup>3</sup>	Payments for other purposes	Total payments
	Annual Capital Budget \$'000	Appropriations reduced <sup>2</sup> \$'000	Section 32 Appropriations \$'000	\$'000	\$'000	\$'000
<b>DEPARTMENTAL</b>						
Ordinary annual services - Departmental Capital Budget <sup>1</sup>	254	-	-	221	-	221
<b>ADMINISTERED</b>						
Ordinary annual services - Administered Capital Budget <sup>1</sup>	-	-	-	-	-	-
						Variance \$'000
						33

**Notes:**

1. Departmental and Administered Capital Budgets are appropriated through Appropriation Acts (No.1,3,5). They form part of ordinary annual services, and are not separately identified in the Appropriation Acts. For more information on ordinary annual services appropriations, please see Table A: Annual appropriations.
2. Appropriations reduced under Appropriation Acts (No.1,3,5) 2012-13: sections 10, 11, 12 and 15 or via a determination by the Finance Minister.
3. Payments made on non-financial assets include purchases of assets, expenditure on assets which has been capitalised, costs incurred to make good an asset to its original condition, and the capital repayment component of finance leases.



	2012 Capital Budget Appropriations			Capital Budget Appropriations applied in 2012		
	<i>Appropriation Act</i>	<i>FMA Act</i>	Total Capital Budget Appropriations \$'000	Payments for non-financial assets <sup>3</sup> \$'000	Payments for other purposes \$'000	Total payments \$'000
	Annual Capital Budget \$'000	Appropriations reduced <sup>2</sup> \$'000				
<b>DEPARTMENTAL</b>						
Ordinary annual services - Departmental Capital Budget <sup>1</sup>	316	-	316	391	-	391
<b>ADMINIS TERED</b>						
Ordinary annual services - Administered Capital Budget <sup>1</sup>	-	-	-	-	-	(75)

**Notes:**

1. Departmental and Administered Capital Budgets are appropriated through Appropriation Acts (No.1,3,5). They form part of ordinary annual services, and are not separately identified in the Appropriation Acts. For more information on ordinary annual services appropriations, please see Table A: Annual appropriations.
2. Appropriations reduced under Appropriation Acts (No.1,3,5) 2011-12: sections 10, 11, 12 and 15 or via a determination by the Finance Minister.
3. Payments made on non-financial assets include purchases of assets, expenditure on assets which has been capitalised, costs incurred to make good an asset to its original condition, and the capital repayment component of finance leases.

**Table C: Unspent Annual Appropriations ('Recoverable GST exclusive')**

<b>Authority</b>	<b>2013 \$'000</b>	<b>2012 \$'000</b>
<b>DEPARTMENTAL</b>		
Appropriation Act (No 1) 2009-10	-	2,519
Appropriation Act (No 1) 2010-11	202	319
Appropriation Act (No 1) 2010-11 Capital Budget (DCB) Non Operating	-	10
Appropriation Act (No 1) 2011-12	317	386
Appropriation Act (No 4) 2011-12 Non Operating - Equity Injection	160	160
Appropriation Act (No 1) 2011-12 Capital Budget (DCB) Non Operating	-	4
Appropriation Act (No 1) 2012-13	2,653	-
Appropriation Act (No 1) 2012-13 Capital Budget (DCB) Non Operating	47	-
<b>Total</b>	<b>3,379</b>	<b>3,398</b>
<b>ADMINISTERED</b>		
Appropriation Act (No 1) 2009-10	13	13
Appropriation Act (No 1) 2011-12	63	662
Appropriation Act (No 1) 2012-13	1,361	-
<b>Total</b>	<b>1,437</b>	<b>675</b>

**Table D: Reduction in Administered Items ('Recoverable GST exclusive')**

2013	Amount required <sup>d</sup> - by Appropriation Act		Total amount required <sup>2</sup>	Total amount appropriated <sup>3</sup>	Total reduction <sup>4</sup>
	Act (No.1)	Act (No.3)			
Ordinary Annual Services	82,331,999.85	-	82,331,999.85	82,332,000.00	0.15
Outcome 1					

**Notes:**

1. Administered items for 2013 were reduced to these amounts when these financial statements were tabled in Parliament as part of the entity's 2013 annual report. This reduction was effective in 2014, but the amounts were reflected in Table A in the 2013 financial statements in the column 'Appropriations reduced' as they were adjustments to 2013 appropriations.

2. Amount required as per Appropriation Act (Act 1 s. 11; Act 2 s. 12).

3. Total amount appropriated in 2013.

4. Total reduction effective in 2014.

2012	Amount required <sup>d</sup> - by Appropriation Act		Total amount required <sup>2</sup>	Total amount appropriated <sup>3</sup>	Total reduction <sup>4</sup>
	Act (No.1)	Act (No.3)			
Ordinary Annual Services	75,372,724.02	3,500,000.00	78,872,724.02	78,881,000.00	8,275.98
Outcome 1					

**Notes:**

1. Administered items for 2012 were reduced to these amounts when these financial statements were tabled in Parliament as part of the entity's 2012 annual report. This reduction was effective in 2013, but the amounts were reflected in Table A in the 2012 financial statements in the column 'Appropriations reduced' as they were adjustments to 2012 appropriations.

2. Amount required as per Appropriation Act (Act 1 s. 11; Act 2 s. 12).

3. Total amount appropriated in 2012.

4. Total reduction effective in 2013.

## Note 26: Special Accounts

### Note 26: Special Accounts (Recoverable GST exclusive)

	ACIAR Special Account <sup>1</sup>	
	2013 \$'000	2012 \$'000
<b>Balance brought forward from previous period</b>	<b>24,326</b>	10,866
<b>Increases:</b>		
Other receipts	27,006	38,174
<b>Total increases</b>	<b>27,006</b>	38,174
<b>Available for payments</b>	<b>51,332</b>	49,040
<b>Decreases:</b>		
<b>Administered</b>		
Payments made to suppliers	(30,155)	(24,714)
<b>Total administered decreases</b>	<b>(30,155)</b>	(24,714)
<b>Total decreases</b>	<b>(30,155)</b>	(24,714)
<b>Total balance carried to the next period</b>	<b>21,177</b>	24,326

1. Appropriation: Financial Management and Accountability Act 1997 section 21.

Establishing Instrument: Australian Centre for International Agricultural Research Act 1982 section 33

Purpose: For crediting amounts received from time to time to cover the discharge of costs.

## Note 27: Compensation and Debt Relief

### Compensation and Debt Relief - Departmental

No 'Act of Grace' payments were expensed during the reporting period (2012: No expenses).

No waivers of amounts owing to the Australian Government were made pursuant to subsection 34(1) of the *Financial Management and Accountability Act 1997* (2012: No waivers).

No payments were provided under the Compensation for Detriment caused by Defective Administration (CDDA) Scheme during the reporting period (2012: No payments).

No ex-gratia payments were provided for during the reporting period (2012: No payments).

No payments were provided in special circumstances relating to APS employment pursuant to section 73 of the *Public Service Act 1999* (PS Act) during the reporting period (2012: No payments).

### Compensation and Debt Relief - Administered

No 'Act of Grace' payments were expensed during the reporting period (2012: No expenses).

No waivers of amounts owing to the Australian Government were made pursuant to subsection 34(1) of the *Financial Management and Accountability Act 1997* (2012: No waivers).

No payments were provided under the Compensation for Detriment caused by Defective Administration (CDDA) Scheme during the reporting period (2012: No payments).

No ex-gratia payments were provided for during the reporting period (2012: No payments).

No payments were provided in special circumstances relating to APS employment pursuant to section 73 of the *Public Service Act 1999* (PS Act) during the reporting period (2012: No payments).

## Note 28: Reporting of Outcomes

### Note 28A: Net Cost of Outcome Delivery

	Outcome 1		Total	
	2013	2012	2013	2012
	\$'000	\$'000	\$'000	\$'000
<b>Departmental</b>				
Expenses	(11,159)	(10,191)	(11,159)	(10,191)
Own-source income	443	28	443	28
<b>Administered</b>				
Expenses	(112,894)	(103,235)	(112,894)	(103,235)
Own-source income	28,053	37,468	28,053	37,468
<b>Net cost of outcome delivery</b>	<b>(95,557)</b>	<b>(75,930)</b>	<b>(95,557)</b>	<b>(75,930)</b>

### Note 28B: Major Classes of Departmental Expense, Income, Assets and Liabilities by Outcome

Expenses, income, assets and liabilities included on the Statement of Comprehensive Income and the Balance Sheet all relate to Outcome 1 as described in Note 1.1.

### Note 28C: Major Classes of Administered Expenses, Income, Assets and Liabilities by Outcome

Expenses, income, assets and liabilities included on the Administered Schedule of Comprehensive Income and the Administered Schedule of Assets and Liabilities all relate to Outcome 1 as described in Note 1.1.

## Note 29: Net Cash Appropriation Arrangements

	2013 \$'000	2012 \$'000
<b>Total comprehensive (loss) income less depreciation/amortisation expenses previously funded through revenue appropriations<sup>1</sup></b>	<b>14</b>	<b>4</b>
Plus: depreciation/amortisation expenses previously funded through revenue appropriation	<u>(276)</u>	<u>(254)</u>
<b>Total comprehensive (loss) income - as per the Statement of Comprehensive Income</b>	<b><u>(262)</u></b>	<b><u>(250)</u></b>

1. From 2010-11, the Government introduced net cash appropriation arrangements, where revenue appropriations for depreciation/amortisation expenses ceased. Entities now receive a separate capital budget provided through equity appropriations. Capital budgets are to be appropriated in the period when cash payment for capital expenditure is required.





A young boy stands in the center of a lush cornfield. He is wearing a light-colored, long-sleeved shirt with a dark collar. His right hand is placed over his chest. The corn plants are tall and vibrant green, filling the foreground and background. In the distance, several acacia trees are scattered across the horizon under a bright, slightly overcast sky. The entire image has a soft, monochromatic green tint.

# TRACKING PERFORMANCE

# Tracking performance against the 2012–13 Portfolio Budget Statement

## Vision

The Australian Centre for International Agricultural Research (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

ACIAR has a single outcome:

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

Under this outcome ACIAR has the single administered program of international agricultural research for development for more productive and

sustainable agriculture, as outlined in the 2012–13 Portfolio Budget Statement. The Administered program is delivered through a number of initiatives aligning closely with the Australian Aid policy statement as described in *'An Effective Aid Program for Australia: Making a real difference—Delivering real results, 2011:*

- Agricultural productivity growth in smallholder systems
- Developing market integration for smallholder livelihoods to enable market participation
- Human and institutional capacity building for developing country national research institutions
- Safeguarding food security and facilitating adaptation to climate change in rice-based farming systems of Mekong countries and South Asia
- Developing high value agriculture, forestry and fishery products in the Pacific
- Advancing food security in Africa by establishing new research partnerships and projects; and
- Increasing financial support to the Consultative Group on International Agricultural Research (CGIAR).

For more detailed reporting against administered program key performance indicators, also refer to the following section in this report: *Tracking performance against the 2012–13 Annual Operational Plan.*

## Administered program

Program objective	Deliverables	Key Performance Indicators: Indicator/ performance
International agricultural research for development of more productive and sustainable agriculture	<b>Enhanced productivity and profitability of cattle and pigs through improved practices, and policy environments in Indonesia</b>	<p><b>Trilateral collaboration between Indonesia, East Timor and Australia developed, initially through livestock and horticulture research, and subsequently expanded into other sectors</b></p> <p><b>Achieved—</b></p> <p>Trilateral collaboration discussions held with Indonesia and detailed proposals now almost complete. Projects with trilateral cooperation include: Papaya mealybug project (HORT/2011/006); rabies project (AH/2012/036); livestock movement project (AH/2006/156). There is also a new project being developed (AH/2012/065) investigating a regional approach to classical swine fever in west and East Timor.</p>
	<b>Mango and citrus production and marketing, and improving livelihoods of dairy farmers in Pakistan</b>	<p><b>Capacity of lead farmers, researchers and extension staff in the horticulture and dairy sectors increased in Pakistan</b></p> <p><b>Partially achieved—</b></p> <p>For horticulture, training for citrus and mango farmers, researchers and extension workers is ongoing. For dairy, training of farmers and additional staff was delayed and is now being held later in 2013.</p>
	<b>Improving the livelihoods of Papua New Guinea (PNG) women in agriculture by developing their business acumen</b>	<p><b>Social, economic and environmental constraints to industry development by smallholder farmers identified in PNG women's business acumen project</b></p> <p><b>Achieved—</b></p> <p>Strategies to improve women's business knowledge and skills are being developed and trialled. Financial skills are being developed through activities such as mobile banking system training.</p>
	<b>Improving on-farm productivity and enhancing supply chains for a range of fruit and vegetable products in the southern Philippines</b>	<p><b>Postharvest constraints and issues for selected Philippines fruit and vegetable crops identified and documented</b></p> <p><b>Achieved—</b></p> <p>Constraints identified for mango, jackfruit, capsicum, tomato, bitter melon, eggplant, okra, Bok Choy and cabbage. A new project has been developed to help address these constraints.</p>

Program objective	Deliverables	Key Performance Indicators: Indicator/ performance
	<p><b>Better integration of smallholders into profitable markets for high-value crops and Agroforestry in the north-western highlands of Vietnam</b></p>	<p><b>Approaches tested to improve smallholder farmer livelihoods in Vietnam's north western highlands for improved productivity and market engagements</b></p> <p><b>Achieved—</b></p> <p>Resource management practices and market linkages have been identified for various cropping systems.</p>
	<p><b>Capacity building in Indonesian research institutions</b></p>	<p><b>At least 12 postgraduate thesis projects and two postgraduate scholarships in five research programs</b></p> <p><b>Achieved—</b></p> <p>26 students have completed postgraduate studies in 2012–13. 20 new students commenced the John Allwright Fellowship program and 10 John Dillon Fellowships were awarded.</p> <p><b>Capacity of Indonesian national and regional R&amp;D agencies strengthened through formal and on-the-job-capacity building of at least 100 individuals</b></p> <p><b>Achieved—</b></p> <p>Formal on-the-job capacity-building activities have been provided across the full program of projects funded with Indonesia.</p>
	<p><b>Introduction, management and evaluation of improved crop varieties to East Timor</b></p>	<p><b>Establishment of informal and formal seed production networks for the dissemination of 10 improved crop varieties</b></p> <p><b>Achieved—</b></p> <p>Approximately 1,000 community-based seed production groups are now operating.</p> <p><b>Release of one high-yielding white maize variety for use by upland farmers in East Timor</b></p> <p><b>Achieved—</b></p> <p>White maize variety Noi Mutin (“white darling”) released.</p>

Program objective	Deliverables	Key Performance Indicators: Indicator/ performance
	<p>Productivity of rice-based lowland systems in southern Laos, particularly extension, marketing and policy</p>	<p><b>Diversification options (particularly relating to options to increase productivity per unit of water) for rice-based farming systems within countries of the Mekong basin</b></p> <p><b>Achieved—</b></p> <p>Management options for sea water intrusion and flooding being developed through ongoing research.</p> <p><b>New project on agricultural policy commenced, with special emphasis on rice</b></p> <p><b>Achieved—</b></p> <p>A new project has commenced and analyses on processes and constraints has been completed.</p>
	<p>A new program of research to assist adaptation to climate change at the farm scale, developing capacity for more efficient use of soil and water resources in Cambodia</p>	<p><b>Enhanced capacity building in farming households in Svay Rieng province to enable them to adapt their systems to climate change</b></p> <p><b>Achieved—</b></p> <p>Technologies that improve water use efficiency, including drip irrigation kits and direct seeding of rice for early harvest, have been developed and trialled. These are now being applied more widely.</p>
	<p>Sustainable agricultural intensification pathways for improving food security in maize systems in east and southern Africa: socioeconomic dynamics, drivers of change and policy options for inclusive growth</p>	<p><b>Initiation of the spillover of SIMLESA research knowledge to other countries in the region</b></p> <p><b>Achieved—</b></p> <p>Relevance and adaptability of SIMLESA results have been tested in diagnoses and field trials in Botswana, Rwanda, Uganda and South Sudan.</p>

Program objective	Deliverables	Key Performance Indicators: Indicator/ performance
	<p>Identification, development and adoption of new, market-driven opportunities for improving the quality, accessibility, diversity and quantity of food and other agricultural crops in the Pacific</p>	<p><b>New/adapted integrated production technologies leading to increased productivity, enhanced nutrition, decreased water use, or resistance to pests and diseases being field-tested under commercial conditions in at least three crop and agribusiness projects</b></p> <p><b>Achieved—</b></p> <p>Projects have been undertaken for: testing integrated pest and disease management strategies for cocoa in Vanuatu; Mucuna rotations for taro productivity Fiji; and composting for commercial vegetables in Kiribati.</p> <p><b>At least three projects designed and initiated to increase agricultural production or investigate diversification in crop, fisheries and forestry projects</b></p> <p><b>Achieved—</b></p> <p>Several projects have been undertaken, including: diversifying and improving flower production in Solomon Islands and Fiji; improving community-based aquaculture in Fiji, Kiribati, Samoa and Vanuatu, and; developing seaweed industry in the Pacific Islands. Several other projects are also in the planning stage.</p>
	<p>Continued funding allocated to the CGIAR system primarily on an unrestricted basis through the relevant windows.</p>	<p><b>CGIAR funding allocations match funding windows and fall within ACIAR Annual Operational Plan parameters.</b></p> <p><b>Achieved—</b></p> <p>All Fund Council and technical meetings have been attended as required. Australian perspectives have been presented (in line with ACIAR Annual Operational Plan parameters). ACIAR's role has been publicly acknowledged by Council and Consortium Chairs and other parties.</p>

## Departmental program

ACIAR has a single departmental program of Portfolio management: Sound administration that underpins ACIAR's collaborative, international project partnerships, and requires liaison with a diverse range of research providers and government instrumentalities and other stakeholders.

Program Objective	Deliverables	Key Performance Indicators: Indicator/performance
Sound administration that underpins ACIAR's collaborative, international project partnerships, and requires liaison with a diverse range of research providers and government instrumentalities and other stakeholders	Departmental costs are maintained within agreed budget parameters	<p>Departmental costs are maintained within agreed budget parameters.</p> <p><b>Achieved—</b></p> <p>Departmental costs were within agreed budget parameters.</p>

## Tracking performance against the 2012–13 Annual Operational Plan

ACIAR's 2012–13 Annual Operational Plan (AOP) outlines research priorities, providing a window into the Centre's operations and research directions within the context and strategies of the Portfolio Budget Statement and the broader Australian aid program.

## Key performance indicators in corporate program areas

ACIAR measures its progress across corporate program areas through a series of key performance indicators (KPIs). These assist in the refinement of corporate programs, which are designed to complement the Centre's research program.

Corporate programs	
Departmental and administered costs maintained within agreed budget parameters	Achieved—all Departmental and administered costs maintained within agreed budget parameters.
All legislative and reporting requirements and requests for policy advice and information met in an efficient and timely manner	Achieved—all reporting requirements met on time.
ACIAR corporate knowledge and information readily accessible to all staff	Achieved—corporate knowledge and information readily accessible to all staff.
Stakeholders have access to information on program and project outcomes, and impacts of past projects	Achieved—all concluded projects now have final reports available on website, with annual reports also available through the website.
New WHS legislation effectively implemented	Achieved—All human resource policies have been updated to reflect new WHS requirements.

### CGIAR and IARCs

Effective participation by ACIAR in CGIAR reform deliberations and implementation, with Australian perspectives and contributions recognised and acted upon by the Fund Council and Consortium Board	Achieved—all Fund Council and technical meetings attended as required, Australian perspectives presented, ACIAR's role publicly acknowledged by Council and Consortium Chairs and other parties.
--	--

## Capacity building

At least 15 students successfully completed postgraduate awards in 2012–13	Achieved—26 students completed postgraduate study at Australian universities during 2012–13.
Size and management of the John Allwright Fellowship (JAF) program effectively maintained and at least 20 new students to have commenced in 2012–13	Achieved—20 new students commenced in 2012–13.
High quality of applicants for research management training programs in Australia continued, with at least eight John Dillon Fellowships awarded	Achieved—over 50 applications received and 10 Fellowships awarded.

## Research program impact assessment

At least five reports published in the Impact Assessment Series	Achieved—4 Impact Assessment Series reports and a technical report published, 5 further reports in publishing pipeline.
Annual Project Leader Adoption Studies completed	Achieved—7 of 8 adoption studies completed - the 8th study due by 31 July 2013
The impact of natural resource management research beyond the farm-level quantified	Achieved—'Impact Evaluation of NRM Research Programmes: A broader view' report being finalised.
Increased understanding achieved of the impact of ACIAR's research on the livelihoods of the rural poor	Not achieved—quantitative studies not done, due to difficulties establishing case studies.
Returns to ACIAR's investment in agricultural research, and lessons learnt from past experience, updated and published	Achieved—'Returns to ACIAR's Investment in Bilateral Agricultural Research' report completed and in publishing pipeline.
ACIAR's Impact Assessment Guidelines updated and published	Partially achieved—draft updated but yet to be published, with more information about impact pathways, (expected to be revised late July - early August).
Improved working links established with partner-country, international centre and Australian impact assessment groups	Achieved—participated in 4 international impact assessment workshops, and delivered impact pathway training in Myanmar and Pakistan.

## Communicating research results

Information on program and project achievements and impacts widely available in print and online media	Achieved—all available project reports on ACIAR website, project and program outcomes available through scientific publications, Partners Magazine and fact sheets, promoted through social media.
Partners in Research for Development magazine published three times a year	Achieved—3 Partners editions produced.
ACIAR is visible in a range of public awareness events, and provides a range of materials, publications and media releases in support of these activities	Achieved—involvement in Crawford Fund Parliamentary Conference, AIFSRC conference, and workshops in 4 states, support provided for event sponsorships and scientific conference attendees, including provision of promotional materials, publications, and social media to promote events.
IAR partners with at least one country office developed and delivered a training partnership with a project partner agency	Achieved—support provided to Crawford Fund master class on communications for SIMLESA partners, from 5 countries.



## Key performance indicators in each country

ACIAR measures its progress in each country through a series of 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.

Key Performance Indicator	Country / Region	Comment
<b>Afghanistan, Iraq and Bhutan</b>		
Research priorities identified for the improvement and dissemination of forage options for small ruminants	Afghanistan	Achieved—identified with Afghan counterparts and incorporated into design of on-station and on-farm trials.
Higher yielding disease-resistant maize and wheat varieties released	Afghanistan	Partially achieved—2 wheat varieties (and 2 barley varieties) released by Afghan MAIL.
Capacity building of national scientists in community-based watershed management achieved	Afghanistan	Achieved—MAIL and DAIL staff trained, including 3 weeks training in India funded by the Indian government.
Substantial adoption of conservation agriculture in target areas	Iraq	Achieved—area now estimated at 10,000 ha in Ninevah governorate, an increase of 30% over last year.
Identification of improved salinity management practices	Iraq	Achieved—two reports produced on salinity management options, and several technical reports.
Identification of forage development and management research issues	Iraq	Achieved—priorities identified and incorporated into design of on-station and on-farm trials.
Demonstrated increases in commercial citrus plantings resulting from the adoption of new/adapted integrated production	Bhutan	Achieved—increased production and supply of grafted disease-free tree planting material, and increased mandarin planting resulting from ACIAR's research. Also current significant demand for training on canopy management to rejuvenate older trees.
Capacity of agricultural researchers in systems analysis and farming systems modelling increased, in order to evaluate water scarcity and other future cross-sectoral issues	Bhutan	Not achieved—project failed with the one scientist identified for training, indicating lack of training capacity and of understanding applicability of skills.
<b>Africa</b>		
Initiation of the spillover of SIMLESA research knowledge to other countries in the region	Eastern Africa	Achieved—relevance and adaptability of SIMLESA results tested in diagnoses and field trials in Botswana, Rwanda, Uganda and South Sudan.
Diagnosis of local research priorities for crop–livestock systems in Zimbabwe	Zimbabwe	Partially achieved—new project on family poultry and crop integration in Tanzania and Zambia developed, to commence early 2014.
Identification of value-chain constraints to the engagement of smallholders in the Botswana beef industry	Botswana	Partially achieved—new project on enhancing competitiveness of smallholder livestock in Botswana underway, and survey work used to scope new research on goats.

Key Performance Indicator	Country / Region	Comment
New evergreen agriculture project developed and implemented in eastern Africa	Eastern Africa	Achieved—new project on evergreen agriculture covering 4 east African countries underway.
Identification of vegetable production research options	Eastern Africa	Achieved—research identified potential for research and development in peri-urban and urban vegetable crops in eastern and southern Africa, resulting in new project in Tanzania, Malawi, Mozambique and Ethiopia.
Initiation of pearl culture research	Tanzania	Achieved—pearl project underway in Tanzania.

### Bangladesh

Traditional rice-based systems provided with viable options for diversification using maize and legumes	Bangladesh	Achieved—mixed cropping and relay cropping systems based on maize, potato and mungbean demonstrated on farms.
Capacity of national agronomists to manage legumes between cereal crops improved	Bangladesh	Achieved—training visits to lentil production areas of Nepal and Indian Institute of Pulses organised, and course on disease epidemiology and forecasting delivered.
Diversification of rice-based production systems, through the adoption of minimum-tillage practices based on two-wheel tractor systems	Bangladesh	Achieved—Versatile Multi crop Planter developed and trialled in country, and exported to India, Africa and Mexico. Demonstrations now being broadened, and manufacturing capacity being developed for widespread adoption.
Capacity for systems analysis and farming systems modelling increased in addressing water scarcity and other future cross-sectoral issues	Bangladesh	Achieved—scientists trained in use of APSIM and APSIM Farm models, now using skills in other projects, and AusAID funding second phase.
Identification of research priorities for climate-resilient farming systems intensification in eastern Nepal, India and Bangladesh	Bangladesh / Nepal / India	Achieved—priorities identified for intensification, related to water management, conservation agriculture and scaling out modalities.

### Myanmar

A new program established to improve productivity in the crop, fisheries and livestock sectors	Myanmar	Achieved—multi-project program developed; livestock project approved and other projects in final stage of approval.
A partnership created with OIE, SEACFMD and participating countries to assess and control livestock biosecurity risks	Myanmar / Cambodia / China / Laos / Thailand / Vietnam	Partially achieved—project on development of improved livestock biosecurity in the Mekong region designed, to commence January 2014.

Key Performance Indicator	Country / Region	Comment
<b>Cambodia</b>		
A new project developed to improve the resilience of fisheries-dependent communities in Laos and Cambodia to possible changes in water regimes, either through natural or human causes	Cambodia / Laos	Achieved—new project underway.
A new project developed to integrate livestock within crop-based farming systems in north-western Cambodia	Cambodia	Achieved—new project underway.
Development of policy proposals to improve rice-based farming systems	Cambodia	Partially achieved—research concluded and proposals being developed; another project ongoing and delivering analysis of policy constraints and trends.
Management of CAVAC successfully integrated, complementing ACIAR and AusAID initiatives with respect to smallholder livelihoods	Cambodia	Achieved—technologies for improved water and nutrients management, and mechanisation options for direct-seeded rice developed, ready for dissemination to wider audience.
Partnership created with regional institutions, OIE and SEACFMD, as well as with participating countries, to assess and control livestock biosecurity risks	Myanmar / Cambodia / China / Laos / Thailand / Vietnam	Partially achieved—project on development of improved livestock biosecurity in the Mekong region designed, to commence January 2014.
Remote microscopy equipment installed and key staff trained in its use in national plant biosecurity centres in Cambodia, Laos and Thailand	Cambodia / Laos / Thailand	Achieved—equipment installed in major biosecurity laboratories in Bangkok, Chiang Siam and Laim Chabang in Thailand; at CARDI, GDA and RUA in Cambodia and the Plant Protection Centre in Laos, and key staff trained.
Demonstrated reduction in postharvest losses of key vegetables (tomatoes, chillies and leafy vegetables) through the adoption of new postharvest technologies	Cambodia	Achieved—ice-slurry pre-cooling, evaporative cooling and improved packaging options refined, implemented and tested, demonstrating product weight loss is reduced, quality retained and shelf life extended.
Livestock traders educated to avoid high-risk practices that facilitate the spread of animal disease	Cambodia	Achieved—cattle biosecurity booklet for traders produced and distributed.
A series of policy briefs developed to assist authorities with the management of disease spread via livestock movement	Cambodia	Partially achieved—cattle biosecurity protocols developed in project recommended to Cambodian Government for wider application in Cambodia.
Enhanced capacity building in farming households in Svay Rieng province to enable them to adapt their systems to climate change	Cambodia	Achieved—technologies that improve water use efficiency including drip irrigation kits, and direct seeding of rice for early harvest developed and trialed, and now being applied more widely through iDe program.

Key Performance Indicator	Country / Region	Comment
<b>China</b>		
Recommendations developed for Tibet Autonomous Region regarding overcoming mineral response in dairy cattle	China	Achieved—recommendations for development and use of mineral blocks developed and provided to Tibet Academy of Agricultural and Animal Science, and to be published.
Recommendations developed for Tibet Autonomous Region on integrated crop–forage systems for provision of better feed quality and quantity throughout the year	China	Achieved—recommendations developed and published.
Key traits from spring wheat to underpin conservation agriculture incorporated into Chinese winter wheat	China	Partially achieved—Chinese breeders from North West have incorporated germplasm with new dwarfing genes, high vigour traits, and high water-use efficiency traits.
Partnership created with OIE, SEACFMD and participating countries to assess and control livestock biosecurity risks	Myanmar / Cambodia / China / Laos / Thailand / Vietnam	Partially achieved—project on development of improved livestock biosecurity in the Mekong region designed, to commence January 2014.
Effectiveness of new market-based payment systems to achieve farm-level land-use changes assessed, and assistance with defining suitable policy options provided	China	Achieved—policy report on payment systems delivered 2011/12, publication now available in Chinese, follow-up discussions held in 2012/13 including wider trilateral discussions.
<b>East Timor</b>		
Trilateral collaboration between Indonesia, East Timor and Australia developed, initially through livestock and horticulture research, and subsequently expanded into other sectors	East Timor / Indonesia / PNG / Northern Australia	Achieved—papaya mealybug project involves trilateral collaboration between northern Australia, Timor Leste and Indonesia; rabies project involving eastern Indonesia, Timor Leste, PNG and northern Australia; livestock movement project in eastern Indonesia included component in Timor Leste; new project on regional approach to classical swine fever in west and East Timor being developed. Trilateral collaboration discussions held with Indonesia and detailed proposals now almost complete. Tripartate training and visits also developed linkages with other SE Asian countries and the USA.
Capacity of MAF to guide national programs of R&D in crop and livestock systems strengthened through formal and on-the-job capacity building of at least 50 individuals	East Timor	Achieved—4 MSc students graduated in the year; 8 final-year undergraduate students supervised through Seeds of Life project; 3871 training days provided for 1381 participants.
Establishment of informal and formal seed production networks for the dissemination of 10 improved crop varieties	East Timor	Achieved—approx 1,000 community-based seed production groups now operating.
Release of one high-yielding white maize variety for use by upland farmers in East Timor	East Timor	Achieved—white maize variety Noi Mutin (“white darling”) released.

Key Performance Indicator	Country / Region	Comment
<b>India</b>		
Identification of key research issues for climate-resilient farming systems intensification and diversification in eastern India and Bangladesh	India / Bangladesh	Achieved—priorities identified for intensification, related to water management, conservation agriculture and scaling out modalities.
Delivery of domestic market policy options for consideration by Indian Government advisers and decision-makers	India	Achieved—project reports on market policy reform acknowledged by Indian government, who requested follow-up study on onion market; both reports contributed to public debate on in-country reform options.
Establishment of working relationships with Indian research and advisory agencies, to address climate policy research issues for agriculture in India and Australia	India	Achieved—links established through projects on watershed development, crop diversification and crop planning, and effects of agricultural development on city water supplies.
Research priorities for climate-resilient farming systems intensification in India, eastern Nepal and Bangladesh established and implemented	India / Bangladesh / Nepal	Achieved—priorities identified for intensification, with research priorities established.
Full integration of the use of molecular markers into three wheat breeding programs in India	India	Mostly achieved—selected wheat lines are at various stages of development, with some lines (with rust resistance genes) in regional and national yield trials.
Development of robust diagnostic markers for two resistance genes providing protection against wheat stem rust disease	India	Mostly achieved—2 new genes discovered in 2 landraces and markers identified.
Development of climate-change policy research partnership with India	India	Achieved—establishment of the “Climate Water Forum”, and a new climate policy project on greenhouse gas offsets.
<b>Indonesia</b>		
Recommendations for more mutually beneficial community-based commercial plantation forestry partnerships documented, and forest farmer group training undertaken	Indonesia	Achieved—social dimension analysis reports completed for 5 study sites and forest farmers trained.
Two new forestry projects developed and implemented to enhance smallholder livelihoods from REDD+ payments, high-value agroforestry and non-timber forest products	Indonesia	Achieved—projects on REDD+ and agroforestry/non-timber forest products underway.
Recommendations to institutionalise biosecurity training and producer incentives for the small commercial poultry sector delivered to government and industry bodies	Indonesia	Achieved—manuals and videos in English and Bahasa developed on poultry biosecurity.

Key Performance Indicator	Country / Region	Comment
Design of a new project for brucellosis control in Indonesia and East Timor completed and integrated into the program for cattle productivity in eastern Indonesia	Indonesia / East Timor	Partially achieved—proposal for West and East Timor developed but needs revising to complement the upcoming IndoBeef project.
Trilateral collaboration between Indonesia, East Timor and Australia developed, initially through livestock and horticulture research, and subsequently expanded into other sectors	I East Timor / Indonesia / PNG / Northern Australia	Achieved—papaya mealybug project involves trilateral collaboration between northern Australia, Timor Leste and Indonesia; rabies project in eastern Indonesia, Timor Leste, PNG and northern Australia; livestock movement project in eastern Indonesia included component in Timor Leste; new project on regional approach to classical swine fever in west and east Timor being developed. Trilateral collaboration discussions held with Indonesia and detailed proposals now almost complete. Tripartate training and visits also developed linkages with other SE Asian countries and the USA.
New whole-of-government collaboration established with AusAID for institutional capacity building in IAARD and agribusiness development in eastern Indonesia	Indonesia	Achieved—with AusAID, 8 value chain analyses and recommendations to be published; 2 visits by >35 research managers from IAARD to Australia.
Capacity of national and regional R&D agencies strengthened in technical and methodological aspects of research through formal and on-the-job capacity building of at least 100 individuals	Indonesia	Achieved—formal and on-the-job capacity building provided across the full program of projects funded with Indonesia.
Management recommendations developed for maintaining reproduction rates of cows and for fattening bulls in areas where cattle are raised on poor-quality rice-straw diets	Indonesia	Achieved—recommendations from 20+ in-village trials developed, to be incorporated into IndoBeef program.
Area-wide management strategies for control of fruit flies developed, documented and being tested on commercial blocks in Java	Indonesia	Achieved—strategies based on male annihilation blocks and protein baits used commercially in Krasak and Sliyeg areas.
Commercial disinfestation treatments for export mangoes and mangosteens developed and being tested under commercial conditions	Indonesia	Achieved—hot water treatment and irradiation tested for commercial disinfestation of mangoes; ethyl formate, ant baits, methyl bromide and compressed air tested for mangosteen.
Protocols for the management of vascular pod streak in cacao developed and ready for testing under commercial conditions	Indonesia	Achieved—integrated pest and disease management protocols developed from trials in West Papua, West Sulawesi and South Sulawesi, being prepared for roll-out and testing under commercial conditions.

Key Performance Indicator	Country / Region	Comment
<b>Lao People's Democratic Republic (PDR)</b>		
Fish-passage technology implemented in the Lower Mekong Basin	Laos	Partially achieved: project in latter stages of approval.
New project on agricultural policy commenced, with special emphasis on rice	Laos	Achieved: project commenced and analyses on processes and constraints completed.
Analysis of efficiency and productivity levels documented for all wood-processing companies involved in two manufacturing cluster groups	Laos	Partially achieved: analysis completed for 14 collaborating timber processors, reports being finalised.
New policy project commenced on payments for environmental services	Laos	Achieved: project underway.
Analysis of provincial-level extension systems completed and documented	Laos	Achieved: project concluded and analysis documented.
Trans-disciplinary research program implemented for rice-based farming systems in southern provinces	Laos	Achieved: as part of cropping system project land/water component has researched water availability to promote crop diversification following rice with forage, pulses.
Cost analysis of risks to human health in pig production systems completed	Laos	Achieved: analysis published in EcoHealth.
Integrated program for ACIAR-supported livestock health and production research planned and documented	Laos	Partially achieved: integrated program developed but likely to need some modification to reflect Laos Government's 5-year plan.
A regional program created for a partnership with OIE, SEACFMD and participating countries, to assess and control livestock biosecurity risks	Myanmar / Cambodia / China / Laos / Thailand / Vietnam	Partially achieved: project on development of improved livestock biosecurity in the Mekong region designed, to commence January 2014.
LARF projects moved from being largely 'training-orientated' to become more outcomes focused	Laos	Achieved: 10 projects approved focusing on increasing productivity, pest control, improved feeding and fertilisation rates.
<b>Pacific island countries</b>		
New/adapted integrated production technologies leading to increased productivity, enhanced nutrition, decreased water use, or resistance to pests and diseases being field-tested under commercial conditions in at least three crop and agribusiness projects	Fiji / Vanuatu / Kiribati	Achieved—testing integrated pest and disease management strategies for cocoa in Vanuatu, Mucuna rotations for taro productivity Fiji, and composting for commercial vegetables in Kirabati.
At least three projects designed and initiated to increase agricultural production or investigate diversification in crop, fisheries and forestry projects	Fiji / Kiribati / Samoa / Vanuatu	Achieved—diversifying and improving flower production in Solomon Islands and Fiji; improving community-based aquaculture in Fiji, Kiribati, Samoa and Vanuatu; developing seaweed industry in the Pacific Islands; plus several other projects in planning stage.

Key Performance Indicator	Country / Region	Comment
At least two fisheries projects designed and being implemented to increase community engagement and co-management in fisheries and forestry natural resources management	Pacific islands and western Pacific	Achieved—projects on improving community-based fisheries management in Pacific islands and sea cucumber industry in Western Pacific.
At least two forestry projects developed to enhance livelihoods from agroforestry systems using high-value tree species	Vanuatu / Solomon Islands	Achieved—projects developed for whitewood agroforestry in Vanuatu and teak agroforestry in Solomon Islands.
Quarantine and/or market access strategies that address biosecurity problems developed for at least two crop and agribusiness projects	Fiji	Achieved—strategies developed for root rots and mites for taro export, and for bacterial crown rot in papaya exports from Fiji.
At least one agricultural project designed and being implemented with the aim of environmental sustainability, reduced carbon emissions, reduced water use and enhanced biodiversity in crop and/or forestry projects	Pacific islands	Achieved—assessing responses of taro and cassava to climate change (PC/2012/011).
At least 12 postgraduate thesis studies developed in collaboration with USP and active ACIAR Pacific region projects, and two John Allwright postgraduate scholarships awarded in crop, livestock, fisheries, forestry and agribusiness projects	Pacific islands	Partially achieved—10 USP student thesis projects developed or underway.
The capacity of two regional institutions (SPC and USP) strengthened in using value-chain analysis to identify entry points for improving the competitiveness of Pacific commodity supply chains	Pacific islands	Achieved—SPC participated in value chain analysis of cocoa (Solomon Islands and Vanuatu); USP participated in value chain analysis of pearl (Fiji) and marine products (Fiji/Samoa).

### Pakistan

Demonstrated increases in yields of fruit in commercial orchards as a result of new/adapted integrated production technologies in citrus and mangoes	Pakistan	Achieved: increases in farm yields and income reported, resulting from best practice mango orchard management and furrow irrigation of citrus.
Fruit-quality and market-access requirements identified for mangoes to two new export markets, and samples of fruit sent for evaluation in these markets	Pakistan	Achieved: requirements identified for export markets in the Netherlands, China and Malaysia and samples sent to these markets.
Increased knowledge of policies affecting Pakistan agriculture developed and documented	Pakistan	Achieved: study to understand dynamics and constraints of policy development completed and used to develop upcoming project.
Through a combination of surface water and groundwater use, equity in water distribution ensured for head and tail users, with associated increases in water-use efficiency	Pakistan	Not achieved: project experienced disastrous staff changes, so expected outcomes likely to be minimal, and some outcomes in this KPI are beyond ACIAR's control.



Key Performance Indicator	Country / Region	Comment
Capacity of SAARC member states in systems analysis and farming systems modelling increased, in order to evaluate water scarcity and other future cross-sectoral issues	Pakistan	Achieved: scientists trained in use of APSIM and APSIM Farm models, now using skills in other projects, and AusAID funding second phase.
Capacity of lead farmers, researchers and extension staff in the horticulture and dairy sectors increased, through the conduct of short-course irrigation management training in Pakistan	Pakistan	Partially achieved: training for citrus and mango farmers, researchers and extension workers ongoing, training of dairy farmers and additional staff delayed due to mid-term review, now set for later in 2013.
<b>Papua New Guinea</b>		
New/adapted integrated production technologies being field-tested under commercial conditions in at least three crop and fisheries projects	Papua New Guinea	Achieved—testing use of mini feed mills to improve smallholder and semi-commercial profitability, and integrated management practices for coffee, oil palm, sweet potato and vegetables.
At least three projects designed and initiated to increase agricultural production or investigate diversification in crops, fisheries and poultry	Papua New Guinea	Achieved—floriculture diversification project underway; research assessing production of indigenous vegetable crops in PNG and Bougainville underway; smallholder livestock services project designed; project on integrated crop nutrition and protection practices for sweet potato under design; projects on sustainable management of sport fisheries and shark fisheries being developed.
At least one project designed and initiated to enhance livelihoods and sustainable management of forestry systems	Papua New Guinea	Partially achieved—community forestry project designed, to commence in 2013-14 financial year.
Social, economic and environmental constraints to industry development by smallholder farmers identified and documented in at least two crop and fisheries projects, as well as a women's business acumen project	Papua New Guinea	Achieved—project examining women's business acumen underway; project on constraints in the sweetpotato industry underway; project on constraints in the cocoa and oil palm industries developed; new project on social and economic impacts of shark fisheries developed.
Risk management strategies, management programs or awareness programs relating to exotic pest, disease or weed incursion developed for at least two crop, livestock or across-commodity projects	Papua New Guinea	Achieved—risk management and awareness strategies developed for rabies, cocoa pod borer, and Bogia in coconuts. Biosecurity plan and emergency response plan developed for coffee berry borer.
At least two John Allwright postgraduate scholarship students established, and one John Dillon R&D management training scholarship awarded	Papua New Guinea	Partially achieved—5 John Allwright Fellowships awarded, but no John Dillons. One PNG woman undertaking the Australian Rural Leadership Program on ACIAR scholarship.
<b>Philippines</b>		
Lung-lesion scoring method adopted by commercial abattoirs in region III for routine disease inspection and surveillance	Philippines	Achieved—government and pig industry workers trained in field sampling and how to score lung lesions in slaughtered pigs.

Key Performance Indicator	Country / Region	Comment
Capacity of national and regional R&D agencies strengthened in agriculture, fisheries, livestock and environmental management research through formal and on-the-job capacity building of at least 50 individuals	Philippines	Achieved—formal and on-the-job capacity building provided across the full program of projects funded with Philippines (e.g. >97 staff trained, 40 students and 15,044 farmers). Also, 9 collaborator staff received John Allwright and John Dillon scholarships, 161 individuals participated in study tours, 66 attended conferences and workshops.
A new program of climate change research scoped and designed	Philippines	Achieved—proposal prepared with AusAID and submitted for funding consideration.
Best-bet ICM packages developed for selected fruits and vegetables, and ready for commercial testing	Philippines	Achieved—packages developed and being tested under commercial conditions for vegetables, durian/jackfruit and mangoes.
Postharvest constraints and issues for selected Philippines fruit and vegetable crops (at least four) identified and documented	Philippines	Achieved—constraints identified for mango and jackfruit, and capsicum, tomato, bitter melon, eggplant, okra, Bok Choy and cabbage, and new project developed to address these.

### Thailand

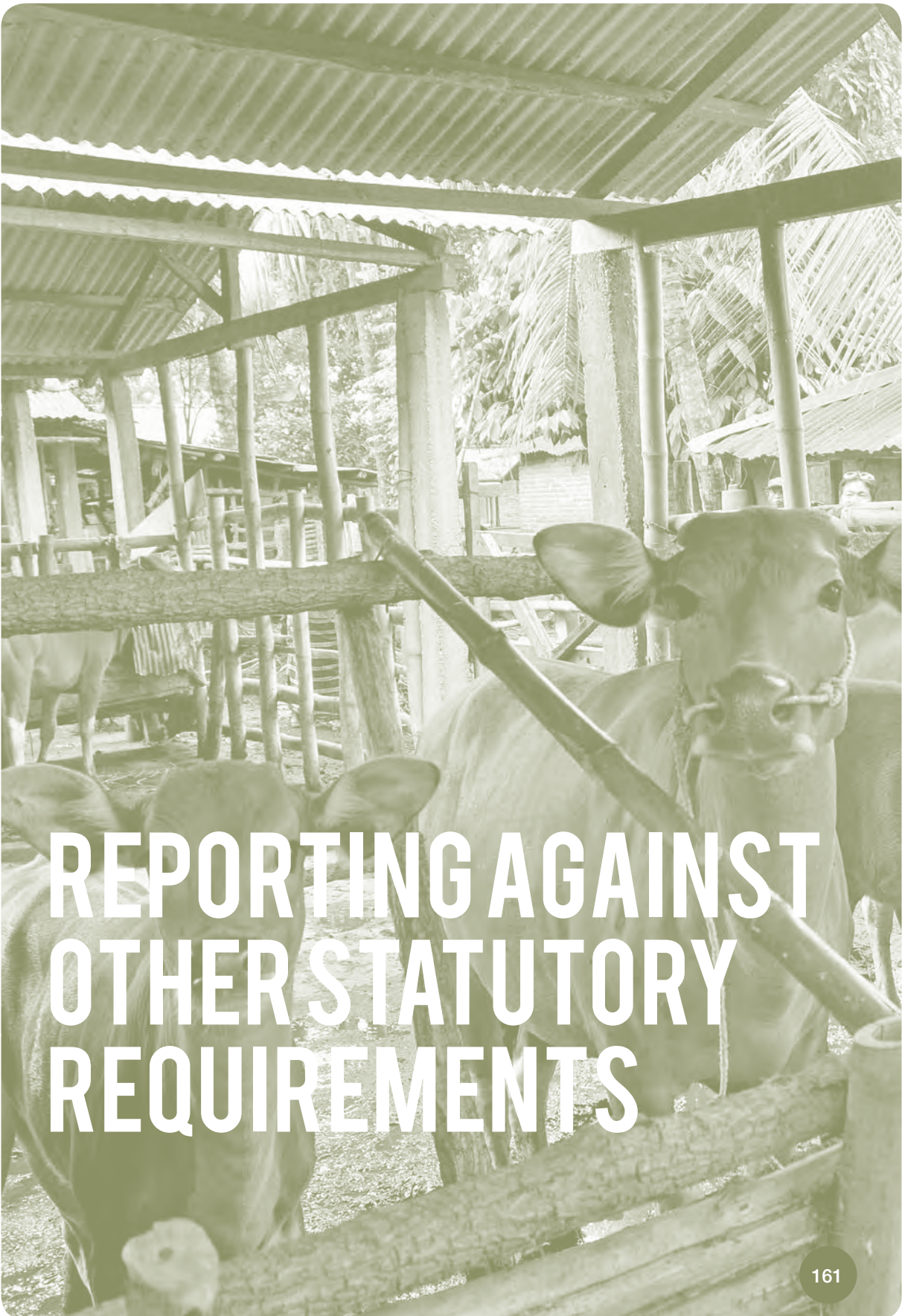
Partnership created with OIE, SEACFMD and participating countries to assess and control livestock biosecurity risks	Myanmar / Cambodia / China / Laos / Thailand / Vietnam	Partially achieved—project on development of improved livestock biosecurity in the Mekong region designed, to commence January 2014.
Remote microscopy equipment installed and key staff trained in its use in national plant biosecurity centres in Cambodia, Laos and Thailand	Cambodia / Laos / Thailand	Achieved—equipment installed in 3 major biosecurity centres in Thailand; at CARDI, GDA and RUA in Cambodia and the Plant Protection Centre in Laos, and staff trained.

### Vietnam

Integrated food/tree-crop management practices developed for improving productivity in the south-central coast region	Vietnam	Achieved—practices for improving the productivity and sustainability of soil and water resources developed and field tested.
Diversification options, and options to increase productivity per unit of water, explored with a view to making rice-based production systems in the Mekong Delta more resilient to the negative impacts of climate change	Vietnam	Achieved—management options for sea water intrusion and flooding being developed through ongoing research.
Various approaches tested in three projects to improve smallholder farmer livelihoods in the south-central coast and north-western highlands regions through improved productivity and market engagement	Vietnam	Achieved—resource management practices and market linkages identified for various cropping systems.
Value-chain assessments conducted for plantation-log veneer and selected agroforestry products	Vietnam	Partially achieved—assessments completed for plantation log veneer and son tra; reports being finalised.

Key Performance Indicator	Country / Region	Comment
A regional partnership program created between OIE, SEACFMD and participating countries to assess and control livestock biosecurity risks	Myanmar / Cambodia / China / Laos / Thailand / Vietnam	Partially achieved—project on development of improved livestock biosecurity in the Mekong region designed, to commence January 2014.
Improved tripartite linkages established between Vietnamese regional and national institutions, China and Australian researchers in the three target geographic regions	Vietnam	Partially achieved—precursor tripartite study assessing policy implications of farmer adjustment to climate change/variability developments in China/Vietnam completed.
At least two new projects established to improve smallholder incomes in the north-western highlands region, through identification of improved market information, market access and value-chain competitiveness for high-value fruit and vegetables	Vietnam	Achieved—new projects on improving temperate fruit values and on vegetable value chains designed and on-track to start in 2013-14.





**REPORTING AGAINST  
OTHER STATUTORY  
REQUIREMENTS**

## Purchasing and tendering compliance

### Purchasing

ACIAR complies with the Commonwealth Procurement Guidelines and the objectives of Commonwealth procurement. Value for money is applied as the core principle in the procurement process, consistent with Section 4 (4.1) of the guidelines. ACIAR's Chief Executive Instructions include details on delegations, the spending of public moneys and dealing with public property. These instructions have been developed in accordance with the Commonwealth Procurement Guidelines, the Environmental Purchasing Guide and various Finance Circulars.

The majority of ACIAR's procurement falls into either: exemption 5: procurement for the direct purpose of providing foreign assistance, or exemption 6: procurement of research and development services, but not the procurement of inputs to research and development undertaken by the agency: exemptions from mandatory procurement procedures, Commonwealth Procurement Guidelines.

Those contracts and agreements under exemption 5 and 6 include: contracts for scoping and feasibility studies; appraisals relating to project design, monitoring and evaluation of programs or projects; project implementation; procurement of goods and services for projects; agreements with NGOs, other governments and international agencies; follow-up activities including workshops to disseminate project outcomes; and post-project assessments and reviews. In relation to project activities, the Centre:

- publishes an Annual Operational Plan that includes areas of priority for research developed in consultation with partner countries
- disseminates this to research providers, both within and outside Australia, inviting suitable experts to submit ideas and develop these in consultation with ACIAR's Research Program Managers.

### Competitive tendering

No open purchase (over \$80,000) involving tendering was carried out during 2012–13.

No contracts were let in excess of \$10,000 that were exempted from publication in AusTender due to freedom of information exemptions.

Purchasing activities are subject to the provisions of the Chief Executive's Instruction (CEI 6.02 Procurement) relating to procurement. In accordance with the Commonwealth Procurement Guidelines, ACIAR publishes an Annual Procurement Plan on the AusTender website <[www.tenders.gov.au](http://www.tenders.gov.au)>.

### Consultants and contracts

ACIAR engages consultants where it lacks specialist expertise or when independent research, review or assessment is required. Consultants are typically engaged to investigate or diagnose a defined issue or problem; carry out defined reviews or evaluations; or provide independent advice, information or creative solutions to assist in the Centre's decision making.

Prior to engaging consultants, ACIAR takes into account the skills and resources required for the task, the skills available internally, and the cost-effectiveness of engaging external expertise. The decision to engage a consultant is made in accordance with the *FMA Act* and related regulations including the Commonwealth Procurement Guidelines and relevant internal policies.

ACIAR's reporting against the Senate Order of 20 June 2001 requiring departments and agencies to list contracts entered into with a value of more than \$100,000, that were still to be concluded or had been concluded during the previous 12 months, is available on the ACIAR website and is reported separately to that outlined below.

During 2012–13 zero consultancy\* contracts were entered into.

\*The distinction between 'consultancy contracts' and 'other contracts and agreements' is in accordance with Financial Management Guideline No. 15—Guidance on Procurement Publishing Obligations.

In addition to contracts in excess of \$100,000 reported under the Senate Order referred to above, ACIAR entered into an additional 201 contracts and agreements to acquire services mainly related to the research program. These contracts totalled \$6,055,749 in 2012–13 (2011–12: \$4,843,109). All contracts over \$10,000 were reported on the AusTender website <www.tenders.gov.au>.

## Discretionary grants

ACIAR did not issue any discretionary grants during 2012–13 or have any ongoing grants from previous years.

## Advertising and market research

ACIAR did not enter into contracts with any advertising agencies, market researchers or polling organisations. One advertisement, promoting the availability of research papers and reports, was placed with the National Farmers' Federation yearbook. ACIAR is also a sponsor of the annual Crawford Fund Conference. No other advertisements or agreements with media advertising organisations were entered into. No direct marketing of information to the public was undertaken and ACIAR has no contracts for any such activities. The Centre maintains mailing lists of project personnel and those requesting selected material.

## ACIAR four-year perspective

Staff employed under the *Public Service Act 1999*

	2009–2010	2010–2011	2011–2012	2012–2013
Staff at 30 June	49	49	55	53
Staff (FTE)	46.52	45.2	51.6	49.47
Female (%)	67.34%	63%	61.8%	63%
Base salaries	\$4,227,052	\$4,488,987	\$4,752,020	\$5,587,033
Cessations	7	9	9	8
Staff turnover	14.23%	18.36%	16.6%	15%
Part-time	24.48%	20.4%	20%	21%
Non-ongoing	36.73%	30.6%	38%	30%
Learning and development activities	\$47,752	\$64,502	\$71,614	\$79,978

## Management of human resources

ACIAR employed 73 employees as at 30 June 2013. Of these, 53 are employed under the *Public Service Act 1999* and are located in Canberra and 20 are at overseas missions and embassies. ACIAR has 1 male SES Band 1 employee.

ACIAR's CEO is not included in these statistics as he is Principal Executive Officer (PEO) Band C.

## Snapshot of ACIAR staff as at 30 June 2013

Staff employed under the PS Act	53* (49.47 FTE)
Median length of APS service	4 years
Median age	47
Females as % of total	63%
NESB staff as % of total	9%
Part-time staff as % of total	21%
Non-ongoing staff as % of total	30%
Employee turnover for 2012-13	15%

\*excludes CEO and three inoperative employees

## Overseas staff

	2009–2010	2010–2011	2011–2012	2012–2013
Staff (FTE)	18.5	16.25	16.25	19.3
Base salaries	\$625,552	\$562,563	\$581,998	\$650,847
Learning and development activities	\$2,952	\$1,018	\$8,478	\$2,072

## Performance management

The Australian Centre for International Agricultural Research (ACIAR) performance management scheme encourages high achievement by improving individual performance through development, evaluation and planning to meet individual and ACIAR needs.

The scheme operates on a three-point rating scale and employees who are rated as 'meets expectations' or 'exceeds expectations' in the annual performance assessment receive an increment, providing they are not already on top of a salary range. In the cycle concluded in June 2012 there were 44 completed assessments, with 43 rated as 'meets expectations' or higher, and one ranked as 'does not meet expectations'. Of these, 5 were advanced one salary point.

## Organisation bonuses

A bonus of \$2,000 is granted to employees rated as 'meets expectations' or higher in the performance cycle, who have worked for ACIAR for at least 9 months and who were still employed by ACIAR on 30 June 2013, in recognition of ACIAR's achievements against the 2012–13 Annual Operational Plan. Part-time employees received a pro-rata payment based on hours worked. 48 employees received the performance bonus with payments totalling \$87,024.

## Learning and development

ACIAR spent \$79,978 on training and development for its Canberra-based employees in 2012–13. This expenditure does not include attendance of Research Program Managers at professional conferences and seminars in Australia and overseas. ACIAR also offers generous assistance for formal study and in 2012–13 two employees received study assistance.

## Enterprise Agreement

The ACIAR Enterprise Agreement 2011–2014 came into effect on 29 June 2011. The agreement was made in accordance with the APS Bargaining Framework and contains non-binding standard terms and conditions and annual salary increases of three per cent, with an initial 2.6 per cent increase being effective on commencement.

## Social inclusion strategy

The Australian Government's Social Inclusion Statement, *A Stronger, Fairer Australia*, sets out the Government's plan for achieving greater social inclusion and seeks to ensure that all Australians have the capabilities, opportunities, responsibilities and resources to learn, work, connect with others and have a say.

ACIAR fosters an environment of inclusiveness through several program areas such as supporting workplace diversity, workplace health and safety, learning and development and adherence to mechanisms such as the Commonwealth Disability Strategy and the *Carer Recognition Act 2010*.

### Carer Recognition Act compliance

ACIAR's responsibility under the *Carer Recognition Act 2010* ensures its employees have an awareness and understanding of the Statement for Australia's Carers, by providing access to information about self-identification as a carer through our staff intranet.

Human resources policies are developed having due regard to the Statement for Australia's Carers, and workplace arrangements ensure flexibility for carers. ACIAR also collects statistics on the incidence of employees who are carers. In 2012–13 no staff members were identified as formal carers.



### Workplace diversity

A culture of professional behaviour is promoted by ACIAR and we encourage relationships based on respect and appreciation of each others' differences. Achieving an appropriate balance of work, family and cultural responsibilities is encouraged and supported through ACIAR's Workplace Diversity Program, as is the importance of all employees.

ACIAR continued support for and participation in APS-wide initiatives to promote workplace diversity. We promote Indigenous training and development opportunities and encourage people with disabilities to apply for ACIAR employment opportunities.

### Commonwealth Disability Strategy (CDS)

ACIAR continues to adhere to the principles embodied in the Commonwealth Disability Strategy framework and is committed to ensuring that all people seeking employment have fair access to employment opportunities.

As at 30 June 2013, no staff had identified as having a disability.

### Work health and safety

A healthy lifestyle is actively encouraged and promoted by ACIAR, through providing access to annual health assessments, subsidies for healthy lifestyle initiatives, annual influenza injections and pre-travel assessments for overseas travellers by the Travel Doctor.

Access to an Employee Assistance Program is also provided. This program provides free professional counselling and career-planning services to ACIAR employees and their families. The service also includes wellbeing seminars, mediation and conflict resolution services, and assistance to line managers.

Ergonomic assessments for new employees and employees who experience discomfort at their workstation are carried out by a qualified workplace assessor. Modifications are made to work practices and work areas as required, resulting in less work-related physical ailments and increased productivity.

In 2012–13, there were no accidents or dangerous occurrences giving rise to the issue of any formal notices or directions under the *Work Health and Safety Act 2011*.

## Compliance with Freedom of Information / Information Publishing Scheme

Subject to the *Freedom of Information Act 1982 (FOI Act)* ACIAR and other Australian Government agencies are required to publish information to the public as part of the Information Publication Scheme (IPS). This requirement is in Part II of the *FOI Act* and has replaced the former requirement to publish a section 8 statement in an annual report. A plan showing what information ACIAR publishes in accordance with the IPS requirements is available on the website at <aciar.gov.au/IPS>

## Ecologically Sustainable Development and environmental performance

This report comprises the Centre's report on its ecologically sustainable development and environmental performance, provided in accordance with Section 516A of the *Environmental Protection and Biodiversity Conservation Act 1999 (EPBC Act)*.

### Project-related environmental impacts

ACIAR's project development guidelines include triggers to ensure that any projects developed that result in significant environmental impacts follow all due processes under the *EPBC Act*. When partner organisations are developing projects, either as the commissioned (lead) agency or as a collaborator, they must fulfil all relevant obligations under the *EPBC Act*. All obligations under international arrangements to which Australia is a signatory (e.g. the Convention on Biological Diversity) must also be fulfilled.

Should any potential environmental impacts be identified by project proponents, obligation rests with those proponents to ensure that all relevant EPBC obligations have been fulfilled. This includes obligations under international arrangements to which Australia is a signatory, specifically for biological resources, being met and properly documented. Reference to the EPBC Administrative Guidelines on Significance (EPBC Guidelines) is included in project development

processes. Letters of approval relating to the use of experimental animals and/or genetically modified organisms must be provided, along with five letters confirming compliance with regulations relating to germplasm transfer, quarantine requirements, biosafety etc.

Once project proposals have met all relevant obligations they are assessed by the relevant ACIAR Research Program Manager (RPM). The RPM determines if environmental impacts outlined in the proposal having reference to, among other documents, the EPBC Guidelines require action. If informal consultation with the EPBC Referrals Unit is required, RPMs are empowered to seek and document whether potential impacts are sufficient to warrant a formal referral through the Department of Environment, Water, Heritage and the Arts.

## How the outcomes of the organisation contribute to ecologically sustainable development (ESD)

ACIAR's governing legislation outlines the mandate and functions of the Centre under Section 5, including the formulation of policies to deliver against this mandate. Agricultural research is linked explicitly with sustainability. The link is maintained and implemented in the key planning document—the Annual Operational Plan (AOP). At the operational level project development, evaluation and monitoring delivers on this mandate.

## Effect of the organisation's activities on the environment

Projects often have strong environmental benefits. These are spread throughout the Centre's mandated region of operations, in developing countries of the Asia-Pacific region, and Africa. ACIAR projects address problems in developing countries that may also yield results applicable to environmental management in Australia. Such benefits are either a secondary objective or are the result of research having application within Australian settings.

- Agricultural Systems Management and Development Policy—mitigation and adaptation against climate change; policy and institutional frameworks and their impacts on water management
- Crop Improvement and Pest Management—introducing crop management practices in concert with higher-yielding varieties in farming systems, deploying the use of alternative cropping methods; developing control and management strategies for weeds and pests threatening crop species; collection and conservation of unique crop and legume germplasm
- Fisheries—management of cross-country fisheries resources, sustainable management of marine species, including inshore fisheries; and research to develop and implement sustainable aquaculture technologies to minimise wild capture and harvest in ACIAR's mandate region
- Forestry—enhancements of breeding technologies for Australian species, such as eucalypts and acacias, widely used for forestry plantations in Australia and parts of Asia; improving disease- and pest-surveillance methodologies and management; germplasm utilisation and management
- Land and Water Resources—developing water allocation and management strategies; investigating new approaches to managing and alleviating the affects of salinity and soil acidification; assessing land suitability, crop diversification and constraints; minimising pollutants in waterways; developing and promoting new cropping systems for conservation agriculture

## Measures being taken by the organisation to minimise the impact of its activities on the environment

ACIAR's size and resourcing has resulted in the choice to adopt an informal system for managing environmental impacts, built upon the EMS framework circulated to government departments and agencies. The framework has been used to ensure that environmental performance within ACIAR's Canberra premises is as effective as possible.

ACIAR is the sole building tenant, responsible for the management of all infrastructure and implementation of policies to deliver sound environmental management at its Canberra premises. Like all government agencies and departments, daily operations generate waste and consume electricity, water and materials.

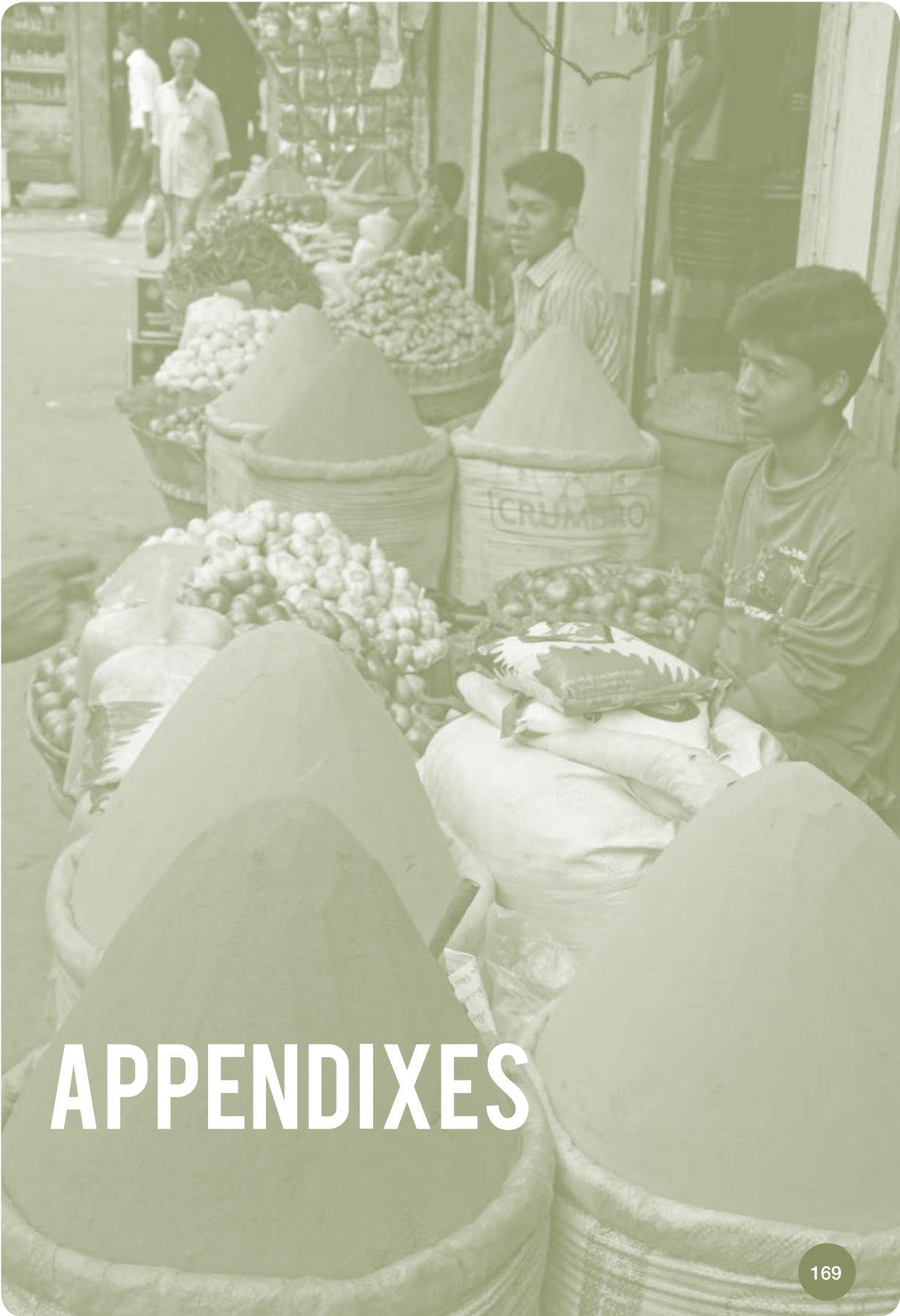
Resource	Usage	
	2011–12	2012–13
Energy (kilowatt hours)	222,219	229,741
Water (kilolitres)	241	253

## Mechanisms for reviewing and increasing the effectiveness of these measures

Formal reporting guidelines on environmental management and associated activities are used for an internal review of environment management processes. These include:

- National Government waste reduction and purchasing guidelines (2004)
- Environmental Purchasing Guide (2004)
- Environmental Purchasing Checklist (2004)
- Energy Use in Commonwealth Operations (annual publication)
- ANAO Green Office Procurement Survey





# APPENDIXES

## Appendix 1: Basis of authority

ACIAR's governing legislation is the *Australian Centre for International Agricultural Research Act 1982* (the Act), proclaimed on 3 June 1982 as Act No. 9 of 1982. The Act was described as 'an Act to encourage research for the purpose of identifying, or finding solutions to, agricultural problems of developing countries'.

The Act was amended in 2007, coming into effect from 1 July 2007. The principal purpose of the amendments introduced in the *Australian Centre for International Agricultural Amendment Act 2007* (the Amendment Act), was to change the governance arrangements of ACIAR. This replaced the Board of Management with an executive management structure involving a Chief Executive Officer (CEO) and a seven-member Commission. The functions of the CEO are set out at Section 5 of the legislation.

### '5. Functions of the CEO

H. The functions of the CEO are:

- a. to formulate programs and policies with respect to agricultural research for either or both of the following purposes:
  - i identifying agricultural problems of developing countries
  - ii finding solutions to agricultural problems of developing countries
- b. to commission agricultural research by persons or institutions (whether the research is to be conducted in Australia or overseas) in accordance with such programs and policies
- c. to communicate to persons and institutions the results of such agricultural research
- d. to establish and fund training schemes related to the research programs referred to in paragraph (a)
- e. to conduct and fund development activities related to those research programs
- f. to fund international agricultural research centres.

2. The CEO must, in performing his or her functions with respect to agricultural research, have regard to the need for persons or institutions in developing countries to share in that research.
3. Nothing in this section authorises, or permits, the CEO to carry out research on behalf of the Commonwealth.
4. The CEO must, in performing his or her functions, comply with any directions given to the CEO under section 5A.

### 5A Power of Minister to give directions

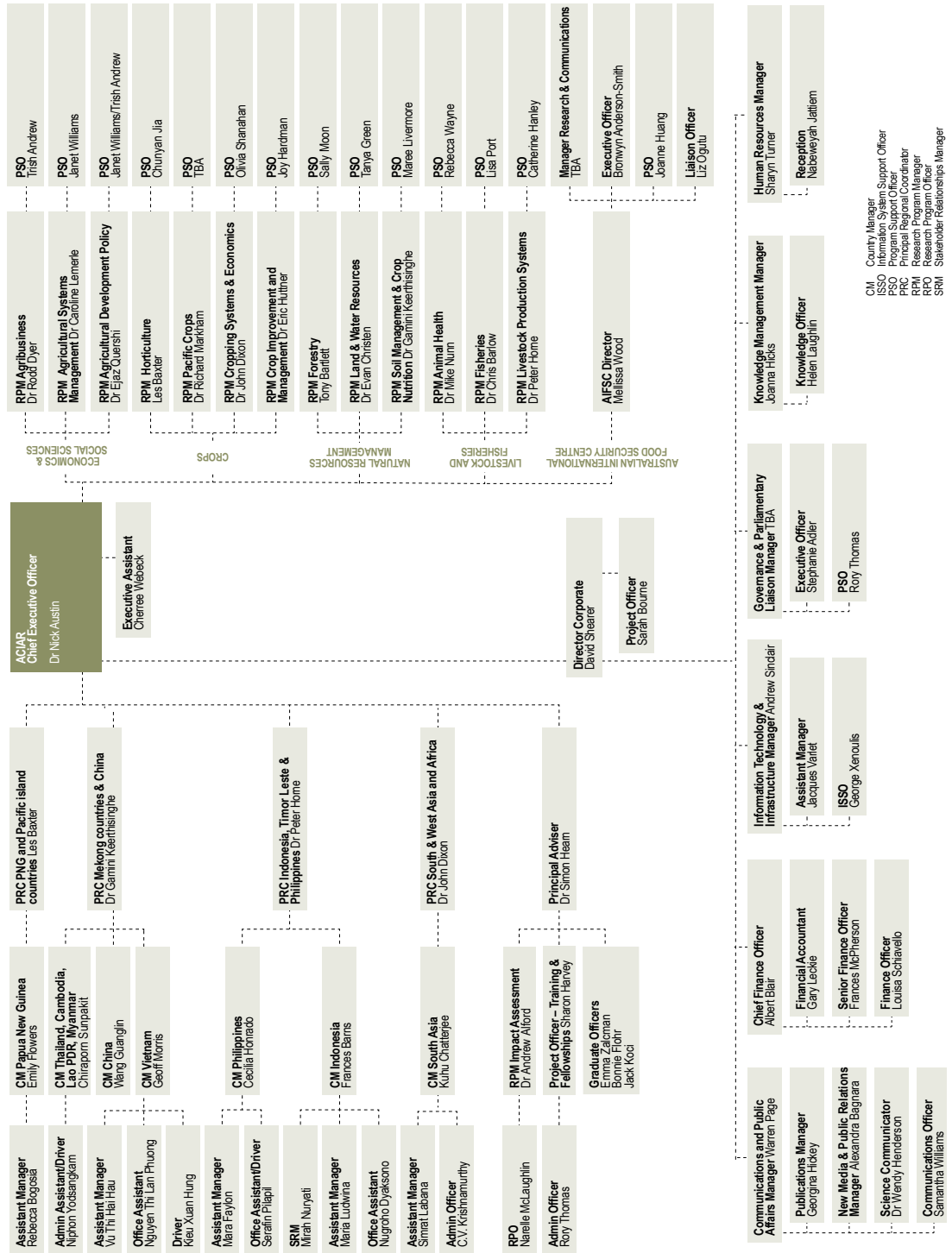
- I. The Minister may, by writing, give directions to the CEO with respect to the performance of the CEO's functions under this Act (including in relation to the appropriate strategic direction the CEO should take in performing his or her functions).

Note: A direction under this section is included in the annual report: see section 39.

2. A direction given under subsection (1) is not a legislative instrument.'

# Appendix 2: Organisation structure

As at 30 June 2013



## Appendix 3: Corporate planning and resources

### Corporate planning

Each financial year ACIAR publishes a formal Annual Operational Plan to guide external stakeholders through the priority areas for research in partner countries. The AOP identifies key research programs in each country, creating a two-way management matrix against which funds are allocated. Reporting against the Annual Operational Plan is covered in the section Tracking Performance against the Annual Operational Plan 2012–13 (see page 143 and the country-specific sections of the report).

### Resources for outcome

#### Financial performance

In 2012-13 ACIAR's direct expenditure on international development assistance represented 90.9% of total expenditure (2011-12: 90.9%).

#### Price of departmental outcomes

**Outcome 1** — Outcome 1 — To achieve more productive and sustainable agricultural systems for the benefit of developing countries and Australia through international agricultural research and training partnerships.

	Actual expenses	Budget*
	2012-13	2012-13
	\$'000	\$'000
Administered expenses		
ordinary annual services	82,270	89,932
special account	30,624	34,572
Total administered expenses	112,894	124,504
Departmental expenses	11,159	10,741
Total for outcome 1	124,053	135,245

\*ACIAR Annual Operational Plan 2012–13



## Appendix 4: Active research projects 2012–13

### Bilateral research projects

Listed projects may be active in more than one country. Some projects have components in countries not formally listed as ACIAR partners in the ‘Year in review’ section. In these projects results are being extended beyond partner countries to those countries that would benefit from the work through project networks.

Country	Project
<b>Bangladesh</b>	
	ASEM/2011/005 Policy constraints in rice-based farming systems in Bangladesh
	ASEM/2009/039 Agricultural policies affecting rice-based farming systems in Cambodia, Lao PDR and Bangladesh
	CIM/2009/038 Introduction of short duration pulses into rice-based cropping systems in western Bangladesh
	LWR/2011/066 Scoping study to assess constraints and opportunities for future research into intensification of cropping systems in southern Bangladesh
	LWR/2010/080 Overcoming agronomic and mechanisation constraints to development and adoption of conservation agriculture in diversified rice-based cropping in Bangladesh
	LWR/2010/033 Developing capacity in cropping systems modelling to promote food security and the sustainable use of water resources in South Asia
	LWR/2008/019 Developing multi-scale climate change adaptation strategies for farming communities in Cambodia, Lao PDR, Bangladesh and India
<b>Bhutan</b>	
	HORT/2010/089 Adapting integrated crop management technologies to commercial citrus enterprises in Bhutan and Australia
	LWR/2010/033 Developing capacity in cropping systems modelling to promote food security and the sustainable use of water resources in South Asia
<b>Cambodia</b>	
	ASEM/2010/049 Market-focused integrated crop and livestock enterprises for north-western Cambodia
	ASEM/2009/039 Agricultural policies affecting rice-based farming systems in Cambodia, Lao PDR and Bangladesh
	ASEM/2009/023 Developing agricultural policies for rice-based farming systems in Lao PDR and Cambodia
	AH/2011/032 Soil fingerprinting approaches for improving biosecurity and the livestock sector in the Mekong region
	AH/2010/046 Domestic and international market development for high-value cattle and beef in South-East Cambodia
	AH/2005/086 Best practice health and husbandry of cattle, Cambodia

Country	Project
	CSE/2009/037 Improved rice establishment and productivity in Cambodia and Australia
	FIS/2011/013 Culture-based fisheries development in Lao PDR and Cambodia
	HORT/2012/027 Establishing a remote microscope network for pest identification in Cambodia, Lao PDR and Thailand
	HORT/2012/018 Assessment of mango production and supply chain practices and R, D & E capacities in Cambodia
	HORT/2006/107 Strengthening the Cambodian and Australian vegetable industries through adoption of improved production and postharvest practices
	LWR/2012/110 Regional co-learning in simple mechanised tools for rice planting
	LWR/2009/046 Improved irrigation water management to increase rice productivity in Cambodia
	LWR/2008/019 Developing multi-scale climate change adaptation strategies for farming communities in Cambodia, Lao PDR, Bangladesh and India

### China

	ADP/2010/070 Assessing farmer responses to climate change - adjustment policy options in China and Vietnam
	CIM/2005/111 More effective water use by rainfed wheat in China and Australia
	LWR/2007/191 Improving farmer livelihoods through efficient use of resources in crop-livestock farming systems in western China
	LPS/2012/034 Use and impact of systems modelling in research for development
	LPS/2010/028 Improving the mineral nutrition of Tibetan livestock
	LPS/2008/048 Sustainable livestock grazing systems on Chinese temperate grasslands
	LPS/2006/119 Integrated crop and dairy systems in Tibet Autonomous Region, PR China

### East Timor

	AH/2012/036 Rabies risk assessment in eastern Indonesia, East Timor, Papua New Guinea and northern Australia
	AH/2011/029 Brucellosis in West and East Timor
	CIM/2009/049 Seeds of Life 3
	HORT/2011/006 Biological control of papaya mealybug ( <i>Paracoccus marginatus</i> Hem: Pseudococcidae) in East Timor and Oriental scale ( <i>Aonidiella orientalis</i> , Hem: Diaspididae) on Papaya in Northern Territory
	LPS/2011/004 Strategies to improve Bali cattle productivity in East Timor
	LPS/2009/036 Enhancing smallholder cattle production in East Timor

### Egypt

	CSE/2011/036 Improving productivity in farming systems of the Nile Delta
--	--

Country	Project
<b>Fiji</b>	
	FIS/2010/096 Evaluating the impacts of improving postharvest processing of sea cucumbers in the western Pacific region
	FIS/2009/057 Pearl industry development in the western Pacific
	FST/2009/062 Development of advanced veneer and other products from coconut wood to enhance livelihoods in South Pacific communities
	HORT/2008/011 Strategies for using floriculture to improve livelihoods in indigenous Australian and Pacific island communities
	PC/2012/050 Developing capacity to assess and disseminate high-quality cocoa in the Pacific islands
	PC/2012/049 Assessing next steps in developing a commercial fruit sector in Tonga
	PC/2012/011 Understanding the responses of taro and cassava to climate change
	PC/2010/090 Strengthening integrated crop management research in the Pacific islands in support of sustainable intensification of high-value crop production
	PC/2009/003 Improving soil health in support of sustainable development in the Pacific
	PC/2008/046 Rehabilitating cocoa for improving livelihoods in the South Pacific
	PC/2008/044 Pacific Agribusiness Research for Development Initiative
	PC/2008/003 Strengthening the Fiji papaya industry through applied research and information dissemination
	PC/2007/118 Developing cleaner export pathways for Pacific agriculture commodities
	PC/2007/072 Postgraduate Scholarship Scheme for University of South Pacific, Fiji
	PC/2004/063 Integrated pest management in a sustainable production system for Brassica crops in Fiji and Samoa
<b>India</b>	
	ADP/2010/008 Capturing the potential for greenhouse gas offsets in Indian agriculture
	CIM/2007/084 Molecular markers for broadening the genetic base of stem rust resistance genes effective against strain Ug99
	CIM/2006/177 Wheat improvement for waterlogging, salinity and element toxicities in Australia and India
	CIM/2006/071 Indo-Australian project on root and establishment traits for greater water use efficiency in wheat
	CIM/2005/020 Molecular marker technologies for faster wheat breeding in India
	CSE/2004/033 Zero-tillage rice establishment and crop-weed dynamics in rice and wheat cropping systems in India and Australia
	LWR/2010/082 Improving livelihoods with innovative cropping systems on the East India Plateau

Country	Project
	LWR/2010/033 Developing capacity in cropping systems modelling to promote food security and the sustainable use of water resources in South Asia
	LWR/2010/015 Improved village scale groundwater recharge and management for agriculture and livelihood development in India
	LWR/2008/019 Developing multi-scale climate change adaptation strategies for farming communities in Cambodia, Lao PDR, Bangladesh and India
	LWR/2007/113 Impacts of climate change and watershed development on whole-of-basin agricultural water security in the Krishna and Murray-Darling Basins
	LWR/2006/158 Enhancing institutional performance in watershed management in Andhra Pradesh, India
	LWR/2006/072 Impacts of meso-scale Watershed Development in Andhra Pradesh (India) and their implications for designing and implementing improved WSD policies and programs

### Indonesia

	AGB/2012/009 Eastern Indonesia agribusiness development opportunities - analysis of vegetable value chains
	AGB/2012/008 Eastern Indonesia agribusiness development opportunities - analysis of legumes value chains
	AGB/2012/007 Eastern Indonesia agribusiness development opportunities - analysis of maize value chains
	AGB/2012/006 Eastern Indonesia agribusiness development opportunities - analysis of mango value chains
	AGB/2012/005 Eastern Indonesia agribusiness development opportunities - analysis of beef value chains
	AGB/2011/010 Improving milk supply, competitiveness and livelihoods in smallholder dairy chains in Indonesia
	AH/2012/036 Rabies risk assessment in eastern Indonesia, East Timor, Papua New Guinea and northern Australia
	AH/2010/039 Surveillance tools and strategies for improved control, monitoring and eradication of avian influenza in Indonesia
	AH/2007/106 Improvement and sustainability of sweetpotato-pig production systems to support livelihoods in highland Papua and West Papua, Indonesia
	AH/2006/169 Cost-effective biosecurity for non-industrial commercial poultry operations in Indonesia
	AH/2006/156 Livestock movement and managing disease in eastern Indonesia and eastern Australia
	FIS/2011/038 Scoping study for fish health-mariculture and rabbitfish aquaculture development in Indonesia
	FIS/2011/030 Strategic plan for ACIAR engagement in developing Indonesia's capture fisheries research and management capacity

Country	Project
	FIS/2009/059 Developing research capacity for management of Indonesia's pelagic fisheries resources
	FIS/2007/124 Diversification of smallholder coastal aquaculture in Indonesia
	FIS/2006/142 Developing new assessment and policy frameworks for Indonesia's marine fisheries, including the control and management of Illegal, Unregulated and Unreported (IUU) fishing
	FST/2012/040 Enhancing smallholder benefits from reduced emissions from deforestation and forest degradation in Indonesia
	FST/2009/051 Increasing productivity and profitability of Indonesian smallholder plantations
	FST/2008/030 Overcoming constraints to community-based commercial forestry in Indonesia
	FST/2007/052 Improving governance, policy and institutional arrangements to reduce emissions from deforestation and degradation (REDD)
	FST/2006/117 Improving added value and small medium enterprises capacity in the utilisation of plantation timber for furniture production in Jepara region
	HORT/2011/006 Biological control of papaya mealybug (paracoccus marginatus Hem: Pseudococcidae) in East Timor and Oriental scale (Aonidiella orientalis, Hem: Diaspididae) on Papaya in Northern Territory
	HORT/2010/011 Improving the sustainability of cocoa production in eastern Indonesia through integrated pest, disease and soil management in an effective extension and policy environment
	HORT/2009/056 Sustainable productivity improvements in allium and solanaceous vegetable crops in Indonesia and sub-tropical Australia
	HORT/2008/041 Area-wide management of pest fruit flies in an Indonesian mango production system
	HORT/2006/147 Integrated pest management of stem borers and insect vectors of viral diseases of sugarcane in Indonesia
	HORT/2006/146 Management of fruit quality and pest infestation on mango and mangosteen to meet technical market access requirements
	LPS/2012/034 Use and impact of systems modelling in research for development
	LPS/2010/037 Support for development of improved TAKE approaches within BBP2TP and BPTP
	LPS/2008/054 Improving smallholder cattle fattening systems based on forage tree legume diets in eastern Indonesia and northern Australia
	LPS/2008/038 Improving reproductive performance of cows and performance of fattening cattle in low input systems of Indonesia and northern Australia
	LPS/2006/003 Integrating forage legumes into the maize cropping systems of West Timor
	SMCN/2007/040 Building more profitable and resilient farming systems in Nanggroe Aceh Darussalam and New South Wales

Country	Project
	SMAR/2008/025 Improved seaweed culture and postharvest waste utilisation in South-East Asia
	SMAR/2008/021 Spiny lobster aquaculture development in Indonesia, Vietnam and Australia
	SMAR/2007/068 Productivity and profitability enhancement of tropical pulses in Indonesia and Australia
	SMAR/2007/063 Enhancing farmer engagement with specialty coffee chains in eastern Indonesia
	SMAR/2006/096 Scaling-out herd management strategies in crop-livestock systems in Lombok, Indonesia
	SMAR/2006/061 Building capacity in the knowledge and adoption of Bali cattle improvement technology in South Sulawesi

#### Kiribati

	FIS/2010/096 Evaluating the impacts of improving postharvest processing of sea cucumbers in the western Pacific region
	PC/2009/003 Improving soil health in support of sustainable development in the Pacific
	PC/2008/044 Pacific Agribusiness Research for Development Initiative

#### Laos

	ASEM/2011/075 Enhancing district delivery and management of agriculture extension in Lao PDR
	ASEM/2011/009 Defining intervention points for improving Lao PDR extension
	ASEM/2009/055 Facilitating livelihood adaptation to natural resource pressures in Lao PDR
	ASEM/2009/039 Agricultural policies affecting rice-based farming systems in Cambodia, Lao PDR and Bangladesh
	ASEM/2009/023 Developing agricultural policies for rice-based farming systems in Lao PDR and Cambodia
	ASEM/2006/060 Lao Agricultural Research Fund
	AH/2009/001 Increased productivity and reduced risk in pig production and market chains. Component 1: animal and human health
	AH/2006/159 Best practice health and husbandry of cattle and buffalo in Lao PDR
	CSE/2009/004 Developing improved farming and marketing systems in rainfed regions of southern Lao PDR
	FIS/2011/072 Pilot study for development of fish friendly irrigation and mini hydro design criteria for application in the Mekong and Murray-Darling Basins
	FIS/2011/013 Culture-based fisheries development in Lao PDR and Cambodia
	FIS/2009/041 Development of fish passage technology to increase fisheries production on floodplains in the lower Mekong and Murray - Darling River basins

Country	Project
	FST/2012/041 Teak-based agroforestry systems to enhance and diversify smallholder livelihoods in Luang Prabang province of Lao PDR
	FST/2011/003 Effective implementation of payments for environmental services in Lao PDR
	FST/2010/012 Enhancing key elements of the value chains for plantation-grown wood in Lao PDR
	FST/2004/057 Enhancing on-farm incomes through improved silvicultural management of teak and paper mulberry plantations in Luang Prabang Province of Lao PDR
	HORT/2012/027 Establishing a remote microscope network for pest identification in Cambodia, Lao PDR and Thailand
	LWR/2012/110 Regional co-learning in simple mechanised tools for rice planting
	LWR/2008/019 Developing multi-scale climate change adaptation strategies for farming communities in Cambodia, Lao PDR, Bangladesh and India

### Mozambique

	FSC/2013/006 Increasing irrigation water productivity in Mozambique, Tanzania and Zimbabwe through on-farm monitoring, adaptive management and agricultural innovation platforms
	FSC/2013/002 A traffic light soil water sensor for resource poor farmers: proof of concept

### Myanmar

	ASEM/2011/043 Strengthening institutional capacity, extension services and rural livelihoods in the Central Dry Zone and Ayeyarwaddy Delta regions of Myanmar
	AH/2011/054 Improving livelihoods of small-scale livestock producers in the central dry zone through research on animal production and health in Myanmar
	SMCN/2011/047 Increasing productivity of legume-based farming systems in the central dry zone of Myanmar

### Nepal

	FST/2011/076 Enhancing livelihoods and food security from agroforestry and community forestry in Nepal
	LWR/2010/033 Developing capacity in cropping systems modelling to promote food security and the sustainable use of water resources in South Asia

### Pakistan

	HORT/2012/002 Heat stress alleviation in summer vegetables - enhancing the use of genetic diversity in central Punjab, Pakistan
	HORT/2010/006 Integrated crop management practices to enhance value chain outcomes for the mango industry in Pakistan and Australia - ASLP Phase 2
	HORT/2010/003 Social research to foster effective collaboration and strengthen pro-poor value chains

Country	Project	
	HORT/2010/002	The enhancement of citrus value chains production in Pakistan and Australia through improved orchard management practices
	HORT/2010/001	Mango value chain improvement
	LWR/2010/033	Developing capacity in cropping systems modelling to promote food security and the sustainable use of water resources in South Asia
	LWR/2005/144	Optimising canal and groundwater management to assist water user associations in maximising crop production and managing salinisation
	LPS/2010/007	Strengthening dairy value chains in Pakistan through improved farm management and more effective extension services

### Papua New Guinea

	ASEM/2012/046	Market diversification and sweetpotato processing in Papua New Guinea: A pre-feasibility study
	ASEM/2011/048	An integrated approach for systemic change and sustained development of the Papua New Guinea sweetpotato value chain
	ASEM/2010/053	Enhancing role of small scale feed milling in the development of the monogastric industries in Papua New Guinea
	ASEM/2010/052	Examining women's business acumen in Papua New Guinea: Working with women smallholders in horticulture
	ASEM/2008/036	Improving livelihoods of smallholder families through increased productivity of coffee-based farming systems in the highlands of Papua New Guinea
	ASEM/2006/127	Commercial sector/smallholder partnerships for improving incomes in the oil palm and cocoa industries in Papua New Guinea
	ASEM/2005/094	Improving the profitability of village broiler production in Papua New Guinea
	AH/2012/036	Rabies risk assessment in eastern Indonesia, East Timor, Papua New Guinea and northern Australia
	AH/2006/157	Animal health surveillance systems for Papua New Guinea
	FIS/2011/071	Scoping potential livelihood benefits and costs of sport fisheries in Papua New Guinea
	FIS/2011/049	Evaluation of the potential for commercial aquaculture of the freshwater prawn <i>Macrobrachium rosenbergii</i> in Papua New Guinea
	FIS/2010/054	Mariculture development in New Ireland, Papua New Guinea
	FIS/2010/017	Building mariculture capacity in Papua New Guinea
	FIS/2009/057	Pearl industry development in the western Pacific
	FIS/2008/023	Increasing production from inland aquaculture in Papua New Guinea for food and income security
	FST/2011/058	Facilitating the establishment of charcoal producer groups in Papua New Guinea
	FST/2010/013	Developing markets and products for the Papua New Guinea Canarium nut industry



Country	Project
	FST/2009/016 Improving the Papua New Guinea balsa value chain to enhance smallholder livelihoods
	FST/2007/078 Development of a Papua New Guinea timber industry based on community-based planted forests: design and implementation of a national germplasm delivery system
	HORT/2008/011 Strategies for using floriculture to improve livelihoods in indigenous Australian and Pacific island communities
	PC/2012/053 Feasibility study on novel lures for pest fruit flies that are non-responsive to known male attractants
	PC/2011/056 Identifying potential vectors of Bogia Coconut Syndrome in Madang province, Papua New Guinea
	PC/2011/053 Identifying appropriate strategies for reducing virus and weevil losses in sweetpotato production systems in Papua New Guinea and Australia
	PC/2007/039 The control of basal stem rot of oil palm caused by Ganoderma in Solomon Islands
	SMCN/2012/016 Review of research needs on natural resource management and crop protection for sweetpotato-based cropping systems in Papua New Guinea
	SMCN/2009/013 Sustainable management of soil and water resources for oil palm production systems in Papua New Guinea
	SMCN/2008/008 Increasing vegetable production in Central Province, Papua New Guinea to supply Port Moresby markets
	SMCN/2004/067 Soil fertility management in the Papua New Guinea highlands for sweetpotato based cropping systems

### Philippines

	ASEM/2011/061 Institutional mentoring of the Landcare Foundation of the Philippines
	ASEM/2011/050 Opportunities to improve climate risk management for smallholder farmers in the Philippines: A scoping study
	ASEM/2010/050 Improving watershed rehabilitation outcomes in the Philippines using a systems approach
	AH/2009/022 Improved investigation, diagnosis and technical support for the control of respiratory diseases of pigs in the Philippines and Australia
	FIS/2012/037 Preliminary trials on giant grouper maturation, spawning and juvenile production in Vietnam, the Philippines and Australia
	FIS/2011/031 Coral reef restoration using mass coral larval reseedling
	FIS/2010/042 Expansion and diversification of production and management systems for sea cucumbers in the Philippines, Vietnam and northern Australia
	HORT/2012/104 Tropical exotic fruit research and development needs in the Philippines and northern Australia
	HORT/2012/020 Integrated crop management to enhance vegetable profitability and food security in the southern Philippines and Australia

Country	Project	
	HORT/2007/067	Improved domestic profitability and export competitiveness of selected fruit value chains in the southern Philippines and Australia program
	HORT/2007/066	Enhanced profitability of selected vegetable value chains in the southern Philippines and Australia program
	SMCN/2009/031	Watershed evaluation for sustainable use of sloping agricultural land in the southern Philippines
	SMAR/2008/025	Improved seaweed culture and postharvest waste utilisation in South-East Asia

#### Samoa

	FST/2009/062	Development of advanced veneer and other products from coconut wood to enhance livelihoods in South Pacific communities
	PC/2012/050	Developing capacity to assess and disseminate high-quality cocoa in the Pacific islands
	PC/2010/090	Strengthening integrated crop management research in the Pacific islands in support of sustainable intensification of high-value crop production
	PC/2010/063	Feasibility study on increasing the consumption of nutritionally-rich leafy vegetables by indigenous communities in Samoa, Solomon Islands and northern Australia
	PC/2009/003	Improving soil health in support of sustainable development in the Pacific
	PC/2008/046	Rehabilitating cocoa for improving livelihoods in the South Pacific
	PC/2008/044	Pacific Agribusiness Research for Development Initiative
	PC/2007/118	Developing cleaner export pathways for Pacific agriculture commodities
	PC/2004/063	Integrated pest management in a sustainable production system for Brassica crops in Fiji and Samoa

#### Solomon Islands

	FST/2012/043	Enhancing economic opportunities offered by community and smallholder forestry in Solomon Islands
	FST/2009/062	Development of advanced veneer and other products from coconut wood to enhance livelihoods in South Pacific communities
	FST/2007/020	Improving silvicultural and economic outcomes for community timber plantations in the Solomon Islands by interplanting with <i>Flueggea flexuosa</i> and other Pacific agroforestry species
	HORT/2008/011	Strategies for using floriculture to improve livelihoods in Indigenous Australian and Pacific island communities
	PC/2012/050	Developing capacity to assess and disseminate high-quality cocoa in the Pacific islands
	PC/2010/090	Strengthening integrated crop management research in the Pacific islands in support of sustainable intensification of high-value crop production

Country	Project	
	PC/2010/063	Feasibility study on increasing the consumption of nutritionally-rich leafy vegetables by indigenous communities in Samoa, Solomon Islands and northern Australia
	PC/2008/046	Rehabilitating cocoa for improving livelihoods in the South Pacific
	PC/2008/044	Pacific Agribusiness Research for Development Initiative
	PC/2007/039	The control of basal stem rot of oil palm caused by <i>Ganoderma</i> in Solomon Islands
<b>South Africa</b>		
	LPS/2012/034	Use and impact of systems modelling in research for development
	LPS/2005/128	Grass-fed markets and value chains for small-scale and emerging beef cattle farmers in South Africa
	LPS/2004/022	Pasture development for community livestock production in the Eastern Cape Province of South Africa
<b>Tanzania</b>		
	FIS/2011/069	Technical support for pearl culture in coastal Tanzania
	FSC/2013/006	Increasing irrigation water productivity in Mozambique, Tanzania and Zimbabwe through on-farm monitoring, adaptive management and agricultural innovation platforms
<b>Thailand</b>		
	HORT/2012/027	Establishing a remote microscope network for pest identification in Cambodia, Lao PDR and Thailand
	SMCN/2007/215	Improving the reliability of rain-fed, rice/livestock-based farming systems in North East Thailand
<b>Tonga</b>		
	FIS/2010/096	Evaluating the impacts of improving postharvest processing of sea cucumbers in the western Pacific region
	FIS/2009/057	Pearl industry development in the western Pacific
	PC/2012/049	Assessing next steps in developing a commercial fruit sector in Tonga
	PC/2010/090	Strengthening integrated crop management research in the Pacific islands in support of sustainable intensification of high-value crop production
	PC/2008/044	Pacific Agribusiness Research for Development Initiative
<b>Vanuatu</b>		
	FST/2012/042	Enhancing management and processing systems for value-adding in plantation-grown whitewood in Vanuatu
	FST/2012/010	Growth and wood properties of <i>Terminalia catappa</i> from agroforestry systems in Vanuatu
	FST/2008/010	Development and delivery of germplasm for sandalwood and whitewood in Vanuatu and northern Australia

Country	Project
	PC/2012/050 Developing capacity to assess and disseminate high-quality cocoa in the Pacific islands
	PC/2012/011 Understanding the responses of taro and cassava to climate change
	PC/2008/046 Rehabilitating cocoa for improving livelihoods in the South Pacific
	PC/2008/044 Pacific Agribusiness Research for Development Initiative

## Vietnam

AGB/2012/030	Towards more profitable and sustainable vegetable-based farming systems in north-western Vietnam and Australia
AGB/2009/053	Improved market engagement for counter-seasonal vegetable producers in north-western Vietnam
AGB/2008/002	Improved market engagement for sustainable upland production systems in the north-western highlands of Vietnam
AGB/2006/112	Increasing the safe production, promotion and utilisation of indigenous vegetables by women in Vietnam and Australia
AGB/2006/066	Improving productivity and fruit quality of sweet persimmon in Vietnam and Australia
AGB/2005/113	Structural adjustment implications of trade liberalisation in Vietnam
ADP/2010/070	Assessing farmer responses to climate change - adjustment policy options in China and Vietnam
FIS/2012/037	Preliminary trials on giant grouper maturation, spawning and juvenile production in Vietnam, the Philippines and Australia
FIS/2011/073	Vietnamese molluscan biosecurity and veterinary diagnostic capacity review
FIS/2011/008	Development of land-based lobster production systems in Vietnam and Australia
FIS/2010/042	Expansion and diversification of production and management systems for sea cucumbers in the Philippines, Vietnam and northern Australia
FIS/2006/141	Improving feed sustainability for marine aquaculture in Vietnam and Australia
FST/2008/039	Enhancement of production of acacia and eucalypt peeled and sliced veneer products in Vietnam and Australia
FST/2008/007	Advanced breeding and deployment methods for tropical acacias
FST/2006/087	Optimising silvicultural management and productivity of high-quality acacia plantations, especially for sawlogs
LPS/2008/049	Overcoming technical and market constraints to the emergence of profitable beef enterprises in the north-western highlands of Vietnam
SMCN/2012/017	Opportunities to improve the sustainable utilisation and management of water and soil resources for profitable farming in south central coastal Vietnam
SMCN/2010/083	Improving the sustainability of rice-shrimp farming systems in the Mekong Delta, Vietnam

Country	Project	
	SMCN/2007/109	Sustainable and profitable crop and livestock systems for south-central coastal Vietnam
	SMAR/2008/021	Spiny lobster aquaculture development in Indonesia, Vietnam and Australia

### Zimbabwe

	FSC/2013/006	Increasing irrigation water productivity in Mozambique, Tanzania and Zimbabwe through on-farm monitoring, adaptive management and agricultural innovation platforms
--	--------------	---

## Multilateral projects

Multilateral projects, those that have an International Agricultural Research Centre as the project leader (commissioned organisation) and are active in a single country, are included in this list only, not in the country list above

Multilateral		
ADP/2005/066	Markets for high-value commodities in Indonesia: Promoting competitiveness and inclusiveness	
ADP/2005/068	Plausible futures for economic development and structural adjustment - impacts and policy implications for Indonesia and Australia	
AH/2010/019	Increased productivity and reduced risk in pig production and market chains. Component 2: animal production	
AH/2011/040	Rapid assessment of potential benefits to human health and nutrition from research on livestock and fish market chains in Asia and Africa	
ASEM/2010/051	Coffee green scales in Papua New Guinea: Highland arabica coffee and yield loss	
CIM/2007/120	Improving post-rainy sorghum varieties to meet the growing grain and fodder demand in India	
CIM/2007/122	Sustainable intensification of rice-maize production systems in Bangladesh	
CIM/2008/027	Development of conservation cropping systems in the drylands of northern Iraq	
CIM/2011/026	Sustainable wheat and maize production in Afghanistan	
CSE/2009/005	Improved rice germplasm for Cambodia and Australia	
CSE/2009/024	Sustainable intensification of maize-legume cropping systems for food security in eastern and southern Africa (SIMLESA)	
CSE/2010/022	Integrating crops and livestock for improved food security and livelihoods in rural Zimbabwe	
CSE/2011/025	Adapting conservation agriculture for rapid adoption by smallholder farmers in northern Africa	
FIS/2010/056	Scaling-out community-based marine resource governance in Solomon Islands, Kiribati and Vanuatu	
FIS/2010/057	Developing inland aquaculture in Solomon Islands	
FIS/2010/058	Assessing economic and welfare values of fish in the Lower Mekong Basin	
FIS/2011/052	Improving research and development of Myanmar's inland and coastal fisheries	

Multilateral	
FIS/2011/068	Strategy for investment in fisheries in East Timor
FIS/2012/074	Improving community-based fisheries management in Pacific island countries
FSC/2012/001	A preliminary study to improve income and nutrition in eastern and southern Africa by enhancing vegetable-based farming and food systems
FSC/2012/014	Improving sustainable productivity in farming systems and enhanced livelihoods through adoption of evergreen agriculture in eastern Africa
FSC/2012/024	Identifying socioeconomic constraints to and incentives for faster technology adoption: Pathways to sustainable intensification in eastern and southern Africa
FSC/2012/047	Farm mechanisation and conservation agriculture for sustainable intensification
FSC/2012/111	Improving income and nutrition in eastern and southern Africa by enhancing vegetable-based farming and food systems in peri-urban corridors
FST/2007/119	Mahogany and teak furniture: action research to improve value chain efficiency and enhance livelihoods
FST/2010/034	Agroforestry for livelihoods of smallholder farmers in north-western Vietnam
FST/2012/039	Development of timber and non-timber forest products' production and market strategies for improvement of smallholders' livelihoods in Indonesia
HORT/2008/040	Integrated crop production of bananas in Indonesia and Australia
IAP/2011/070	Assessing the impacts of natural resource management and policy research in development programs
LPS/2010/010	Competitive smallholder livestock in Botswana
LPS/2010/047	Reducing disease risks and improving food safety in smallholder pig value chains in Vietnam
LWR/2008/047	Integrated catchment management and capacity building for improving livelihoods in Afghanistan
LWR/2009/034	Soil salinity management in central and southern Iraq
LWR/2010/081	Enhancing the resilience and productivity of rainfed-dominated systems in Lao PDR through sustainable groundwater use
LWR/2011/045	Management of water and salinity in the Nile Delta: A cross-scale integrated analysis of efficiency and equity issues
LWR/2011/074	Scoping study to assess constraints and opportunities for sustaining the tank irrigation ecosystems and smallholder livelihoods in East India and Nepal
LWR/2012/013	Investing in water management to improve productivity of rice-based farming systems in Cambodia
PC/2007/111	Incursion prevention and management of coffee berry borer (CBB) in Papua New Guinea and Indonesia (South Sulawesi and Papua)
SMCN/2009/021	Climate change affecting land use in the Mekong Delta: adaptation of rice-based cropping systems (CLUES)
SMCN/2011/046	Diversification and intensification of rice-based systems in lower Myanmar

## Appendix 5: Publications 2012–13

Publ. Code	Title	Authors	Year	Pages
<b>Monographs</b>				
<b>MN 87 2nd ed</b>	Controlling Newcastle disease in village chickens: a laboratory manual	Mary Young, Robyn Alders, Sally Grimes, Peter Spradbrow, Paula Dias, Amilcar da Silva and Quintino Lobo	2012	143
<b>MN 87a 2nd ed</b>	Controlling Newcastle disease in village chickens: a laboratory manual [French translation]	Mary Young, Robyn Alders, Sally Grimes, Peter Spradbrow, Paula Dias, Amilcar da Silva and Quintino Lobo	2012	143
<b>MN 119d</b>	Guidelines for surveillance for plant pests in Asia and the Pacific [Mandarin translation]	Teresa McMaugh	2013	192
<b>MN 146a</b>	A guide to upland cropping in Cambodia: soybean [Khmer translation]	Stephanie Belfield, Christine Brown and Robert Martin	2012	72
<b>MN 149</b>	Hatchery management of tiger grouper ( <i>Epinephelus fuscoguttatus</i> ): a best-practice manual	Ketut Sugama, Michael A. Rimmer, Suko Ismi, Isti Koesharyani, Ketut Suwirya, N.A. Giri and Veronica R. Alava	2012	66
<b>MN 149a</b>	Hatchery management of tiger grouper ( <i>Epinephelus fuscoguttatus</i> ): a best-practice manual [Indonesian translation]	Ketut Sugama, Michael A. Rimmer, Suko Ismi, Isti Koesharyani, Ketut Suwirya, N.A. Giri and Veronica R. Alava	2013	66
<b>MN 150</b>	Nursery management of grouper: a best-practice manual	Suko Ismi, Tatam Sutarmat, N.A. Giri, Michael A. Rimmer, Richard M.J. Knuckey, Anjanette C. Berding and Ketut Sugama	2012	44
<b>MN 150a</b>	Nursery management of grouper: a best-practice manual [Indonesian translation]	Suko Ismi, Tatam Sutarmat, N.A. Giri, Michael A. Rimmer, Richard M.J. Knuckey, Anjanette C. Berding and Ketut Sugama	2013	44
<b>MN 151</b>	Vanuatu sandalwood: growers guide for sandalwood production in Vanuatu	Tony Page, Tate Hanington, Joseph Tungon, Michael Tabi and Phyllis Kamasteia	2012	56
<b>MN152</b>	Sophy and the vegetable patch	ACIAR and Maddox Jolie-Pitt Foundation	2012	44
<b>MN 152a</b>	Sophy and the vegetable patch [Khmer translation]	ACIAR and Maddox Jolie-Pitt Foundation	2012	44
<b>MN 153</b>	Growing healthy sweetpotato: best practices for producing vines for planting	Sandra Dennien, Dorcas Homare, Mike Hughes, Jerry Lovatt, Eric Coleman and Grahame Jackson	2013	176
<b>MN 154</b>	Integrating herbaceous legumes into crop and livestock systems in eastern Indonesia	Jacob Nulik, Neal Dalgliesh, Kendrick Cox and Skye Gabb (eds)	2013	130

Publ. Code	Title	Authors	Year	Pages
<b>Impact Assessment Series reports</b>				
IAS 80	Oil palm pathways: an analysis of ACIAR's oil palm projects in Papua New Guinea	H. Fisher, L. Sar and C. Winzenried	2012	64
IAS 81	Including natural resource management and environmental impacts within impact assessment studies: methodological issues	David Pearce and Lauren White	2012	52
IAS 82	ACIAR's activities in Africa: a review	Hayden Fisher and Laura Hohnen	2012	80
IAS 83	Impact pathway analysis of ACIAR's investment in rodent control in Vietnam, Lao PDR and Cambodia	Florencia G. Palis, Zenaida M. Sumalde, Cleofe S. Torres, Antonio P. Contreras and Francisco A. Datar	2013	149
<b>Technical Reports</b>				
TR 79	Opportunities for the smallholder sandalwood industry in Vanuatu	Tony Page, Tate Hanington, Colin Bunt, Anna Potrawiak and Alick Berry	2012	68
TR 80	Oil palm pathways: an analysis of ACIAR's oil palm projects in Papua New Guinea	H. Fisher, L. Sar and C. Winzenried	2012	54
TR 81	Enhancing livelihoods in Lao PDR through environmental services and planted-timber products	Stephen Midgley, Jeff Bennett, Xeme Samonty, Peter Stevens, Khamphone Mounlamai, Dao Midgley and Alan Brown	2012	100
<b>Corporate publications</b>				
	Annual Report 2011–12	ACIAR	2012	195
	Partners in Research for Development magazine (Spring 2012, Summer 2013, Winter 2013)	ACIAR		32
	ACIAR Annual Operational Plan 2013–14	ACIAR	2013	121
	Adoption of ACIAR project outputs: studies of projects completed in 2007–08	Amir Jilani, David Pearce and Debbie Templeton (eds)	2013	87
	Independent Review of the Australian Centre for International Agricultural Research (ACIAR)	Commonwealth of Australia	2013	100
	ACIAR publications catalogue 2013	ACIAR	2013	71



## Appendix 6: Staffing statistics

### Employee numbers 2012–13

*Public Service Act 1999 employee numbers (ongoing and non-ongoing)*

	Ongoing staff	Non-ongoing staff	Total
Full-time			
Male	6	11	17
Female	19	6	25
Part-time			
Male	1	1	2
Female	9	0	9
<b>Total</b>	<b>35</b>	<b>18</b>	<b>53</b>

#### *Staff turnover*

Good retention rates were maintained in ACIAR in 2012–13. Eight employees ceased employment and three staff remained on leave without pay. The table below shows a comparison of employee turnover over the past four years.

	2009–2010	2010–2011	2011–2012	2012–2013
Retrenched				1
Promotions/ transfers		1	2	
End of contract	1		1	3
Resigned	3	6	5	2
Retired	3	1	1	1
Leave without pay	2	2	3	3
Temporary movement				
Other		1		1
<b>Total</b>	<b>9</b>	<b>11</b>	<b>12</b>	<b>11</b>

### Non-APS employees employed overseas

20 contract and locally engaged staff are employed by ACIAR in Australian overseas missions to provide program support locally, as detailed below.

Post	Male	Female	Full-time	Part-time	Total
Laos	1	1	2	0	2
Beijing	1	0	1	0	1
Hanoi	2	2	3	1	4
Jakarta	1	3	4	0	4
Manila	1	2	3	0	3
New Delhi	1	2	2	1	3
Nairobi	0	1	1	0	1
Port Moresby	0	2	2	0	2
<b>Total</b>	<b>7</b>	<b>13</b>	<b>18</b>	<b>2</b>	<b>20</b>

### Classification structure

ACIAR employees by broadband (excludes LWOP)

ACIAR broadband	APS classification	Employees by classification	Ongoing	Non-ongoing	Female	Male
Band 4	EL 2	2	1	1	0	2
Band 3	EL 1	9	9	0	6	3
Band 2	APS 6	4	4	0	4	0
	APS 5	4	4	0	2	2
	APS 4	19	16	3	18	1
Band 1	APS 3	1	1	0	1	1
	APS 2	No employees at this level				
	APS 1	No employees at this level				

### Research Program Manager Structure

ACIAR broadband	APS classification	Employees by classification	Ongoing	Non-ongoing	Female	Male
Band 4	EL2—RPM	13	1	12	3	10

## Appendix 7: Protective Security Policy Framework

ACIAR has reviewed and revised its requirements under the Australian Government's Protective Security Policy Framework. Actions against the requirements of the Framework are reported in the table below.

### Mandatory Requirements and ACIAR actions

	Mandatory Requirements	ACIAR actions
1	GOV-1 Agencies must provide all staff, including contractors, with sufficient information and security awareness training to ensure they are aware of, and meet the requirements of the Protective Security Policy Framework.	ACIAR provides all staff, including contractors, with sufficient information and security awareness training to meet the requirements of the Framework.
2	GOV-2 To fulfil their security obligations, agencies must appoint: <ul style="list-style-type: none"> <li>a member of the Senior Executive Service as the security executive, responsible for the agency protective security policy and oversight of protective security practices</li> <li>an agency security adviser (ASA) responsible for the day-to-day performance of protective security functions, and</li> <li>an information technology security adviser (ITSA) to advise senior management on the security of the agency's Information Communications Technology (ICT) systems.</li> </ul>	Director Corporate is the security executive, responsible for protective security policy and practices.  Director Corporate is the agency security adviser (ASA)  Manager, IT is the information technology security adviser (ITSA)
3	GOV-3 Agencies must ensure that the agency security adviser (ASA) and information technology security adviser (ITSA) have detailed knowledge of agency-specific protective security policy, protocols and mandatory protective security requirements in order to fulfil their protective security responsibilities.	ASA and ITSA have detailed knowledge of agency-specific protective security policy, protocols and mandatory protective security requirements.
4	GOV-4 Agencies must prepare a security plan to manage their security risks. The security plan must be updated or revised biannually or sooner when changes in risks and the agency's operating environment dictate.	ACIAR's risk management plan provides appropriate detail to fulfil the requirements of the security plan.
5	GOV-5 Agencies must develop their own set of protective security policies and procedures to meet their specific business needs.	Protective security policies and procedures are being developed to meet ACIAR-specific business needs.
6	GOV-6 Agencies must adopt a risk management approach to cover all areas of protective security activity across their organisation, in accordance with the Australian Standard for Risk Management AS/NZS ISO 31000:2009 and the Australian Standards HB 167:2006 Security risk management.	ACIAR has a risk management approach that is in accordance with the Australian Standard for Risk Management AS/NZS ISO 31000:2009

	Mandatory Requirements	ACIAR actions
7	GOV-7	For internal audit and reporting, agencies must:
	<ul style="list-style-type: none"> <li>undertake an annual security assessment against the mandatory requirements detailed within this Framework, and</li> </ul>	An annual security assessment against the mandatory requirements of the PSPF will be undertaken.
	<ul style="list-style-type: none"> <li>report their compliance with the mandatory requirements to the relevant portfolio Minister.</li> </ul>	A report of compliance with the mandatory requirements will be provided to the Minister of Foreign Affairs.
	<ul style="list-style-type: none"> <li>The report must:</li> </ul>	
	<ul style="list-style-type: none"> <li>contain a declaration of compliance by the agency head, and</li> </ul>	The report will contain a declaration of compliance by the ACIAR CEO.
	<ul style="list-style-type: none"> <li>state any areas of noncompliance, including details on measures taken to lessen identified risks.</li> </ul>	The report will state any areas of noncompliance, including details on measures taken to lessen identified risks
	In addition to their portfolio Minister, agencies must send a copy of their annual report on compliance with the mandatory requirements to:	
	<ul style="list-style-type: none"> <li>the Secretary, Attorney-General's Department, and</li> </ul>	A report will be sent to the Secretary, Attorney-General's Department
	<ul style="list-style-type: none"> <li>the Auditor General.</li> </ul>	A report will be sent to the Auditor General
	<ul style="list-style-type: none"> <li>Agencies must also advise any non-compliance with mandatory requirements to:</li> </ul>	
	<ul style="list-style-type: none"> <li>the Director, Defence Signals Directorate for matters relating to the Australian Government ICT Security Manual (ISM).</li> </ul>	ACIAR will advise any non-compliance with mandatory requirements.
	<ul style="list-style-type: none"> <li>the Director-General, Australian Security Intelligence Organisation for matters relating to, and</li> </ul>	ACIAR will advise any non-compliance with mandatory requirements.
	<ul style="list-style-type: none"> <li>the heads of any agencies whose people, information or assets may be affected by the non-compliance.</li> </ul>	ACIAR will advise any non-compliance with mandatory requirements.
8	GOV-8	Agencies must ensure investigators are appropriately trained and have in place procedures for reporting and investigating security incidents and taking corrective action, in accordance with the provisions of:
	<ul style="list-style-type: none"> <li><i>Australian Government Guidelines on Security Incidents and Investigations</i>, and/or</li> <li>The Australian Government Investigations Standards.</li> </ul>	ACIAR will only engage investigators who are appropriately trained and have in place procedures for reporting and investigating security incidents and taking corrective action, in accordance with relevant provisions .

Mandatory Requirements		ACIAR actions
9	GOV- 9 Agencies must give all employees, including contractors, guidance on Sections 70 and 79 of the Crimes Act 1914, section 91.1 of the <i>Criminal Code 1995</i> , the <i>Freedom of Information Act 1982</i> and the <i>Information Privacy Principles</i> contained in the <i>Privacy Act 1988</i> including how this legislation relates to their role.	During induction, ACIAR will provide all employees, including contractors, guidance on all relevant sections of the identified Acts, including how legislation relates to their role
10	GOV-10 Agencies must adhere to any provisions concerning the security of people, information and assets contained in multilateral or bilateral agreements and arrangements to which Australia is a party.	ACIAR will adhere to any provisions concerning the security of people, information and assets contained in relevant agreements and arrangements.
11	GOV-11 Agencies must establish a business continuity management (BCM) program to provide for the continued availability of critical services and assets, and of other services and assets when warranted by a threat and risk assessment.	A business continuity plan which provides for the continued availability of critical services and assets, and of other services and assets is in place.
12	GOV-12 Agencies must ensure the contracted service provider complies with the requirements of this policy and any protective security protocols.	ACIAR will ensure, through contractual arrangements that all service providers comply with relevant requirements and protocols
13	GOV-13 The following agencies must comply with the <i>Commonwealth Fraud Control Guidelines – May 2002</i> : <ul style="list-style-type: none"> <li>all agencies that are subject to the Financial Management and Accountability Act 1997, and</li> <li>Commonwealth Authorities and Companies Act 1997 agencies that are at least 50% budget funded for their operating costs.</li> </ul>	ACIAR has a Fraud Control Plan that complies with the <i>Commonwealth Fraud Control Guidelines – May 2002</i>

### Personnel security

14	PERSEC 1 Agencies must ensure that Australian Government employees, contractors and temporary staff who require ongoing access to Australian Government information and resources:  are eligible to have access have had their identity established  are suitable to have access, and  are willing to comply with the Government's policies, standards, protocols and guidelines that safeguard that agency's resources (people, information and assets) from harm.  Access to higher levels of classified resources is dependent upon the granting of the requisite security clearance.	ACIAR will ensure that Australian Government employees, contractors and temporary staff who require ongoing access to Australian Government information and resources meet the requirements of access, identity and compliance.  ACIAR will only grant access when requisite security clearance is completed.
----	--	---

Mandatory Requirements		ACIAR actions	
15	PERSEC 2	Agencies must, as part of their risk management approach to protective security, identify designated security assessed positions (DSAPs) within their organisation that require access to CONFIDENTIAL, SECRET and TOP SECRET assets and information. Agencies must ensure that security vetting is only applied where it is necessary.	This policy identifies designated security assessed positions and ACIAR ensures that security vetting is only applied where necessary.
16	PERSEC 3	Agencies must maintain a DSAP register.	ACIAR maintains a DSAP register.
17	PERSEC 4	Security clearances must be sponsored by an Australian government agency. Security clearances are not available on demand or on a speculative basis.	ACIAR will only sponsor necessary security clearances.
18	PERSEC 5	All Government agencies must follow the Australian Government Personnel Security Protocol for personnel security as contained in supplementary material within the Protective Security Policy Framework. Only the Australian Government Security Vetting Agency and exempt agencies can grant, continue, deny, revoke or vary a security clearance. Exempt agencies can only issue clearances for their own agency.	ACIAR will follow the Australian Government Personnel Security Protocol for personnel security.
19	PERSEC 6	Agencies must have in place personnel security aftercare arrangements, including the requirement for individuals holding security clearances to advise the AGSVA or the relevant exempt agency of any significant change in personal circumstance that may impact on their continuing suitability to access security classified resources.	ACIAR will put in place personnel security aftercare arrangements that satisfy

### Information security

20	INFOSEC 1	Agency heads must provide clear direction on information security through the development and implementation of an agency information security policy and an agency information security plan.	ACIAR CEO provides clear direction on information security. The ITSA will develop and implement ACIAR's information security policy and an information security plan.
21	INFOSEC 2	Each agency must establish a framework to provide direction and coordinated management of information security. Frameworks must be appropriate to the level of security risks to the agency's information environment.	ACIAR will establish a framework to provide direction and coordinated management of information security.
22	INFOSEC 3	Agencies must implement policies and procedures for the security classification and protective control of information assets (in electronic and paper-based formats) which match their value, importance and sensitivity.	IT policies and procedures for security classification and protective control of information assets will match business requirements.

Mandatory Requirements		ACIAR actions	
23	INFOSEC 4	Agencies must document and implement operational procedures and measures to ensure information, ICT systems and network tasks are managed securely and consistently, in accordance with the level of required security.	ACIAR will document and implement operational procedures and measures to ensure information, ICT systems and network tasks are managed to required security levels.
24	INFOSEC 5	Agencies must have in place control measures based on business owner requirements and assessed/accepted risks for controlling access to all information, ICT systems, networks (including remote access), infrastructures and applications. Agency access control rules must be consistent with agency business requirements and information classification as well as legal obligations.	ACIAR has in place control measures based on business owner requirements and assessed/accepted risks for controlling access to all information, ICT systems, networks (including remote access), infrastructures and applications.
25	INFOSEC 6	Agencies must have in place security measures during all stages of ICT system development, as well as when new ICT systems are implemented into the operational environment. Such measures must match the assessed security risk of the information holdings contained within, or passing across, ICT networks infrastructures and applications.	ACIAR has in place security measures during all stages of ICT system development, as well as when new ICT systems are implemented into the operational environment.
26	INFOSEC 7	Agencies must ensure that agency information security measures for all information processes, ICT systems and infrastructure adhere to any legislative or regulatory obligations under which the agency operates.	ACIAR's information security measures for all information processes, ICT systems and infrastructure adhere to all our legislative or regulatory obligations.

### Physical security

27	PHYSEC 1	Agency heads must provide clear direction on physical security through the development and implementation of an agency physical security policy and an agency physical security plan.	ACIAR CEO will provide clear direction on physical security. The ASA will develop and implement a physical security policy and plan.
28	PHYSEC 2	Agencies must have in place policies and procedures to:	The policy will:
		<ul style="list-style-type: none"> <li>identify, protect and support employees under threat of violence, based on a threat and risk assessment of specific situations. In certain cases, agencies may have to extend protection and support to family members and others</li> </ul>	identify, protect and support employees under threat of violence
		<ul style="list-style-type: none"> <li>report incidents to management, human resources, security and law enforcement authorities, as appropriate</li> </ul>	report incidents to all stakeholders, as appropriate
		<ul style="list-style-type: none"> <li>provide information, training and counselling to employees, and</li> <li>maintain thorough records and statements on reported incidents.</li> </ul>	provide information, training and counselling to employees maintain thorough records and statements on reported incidents

		Mandatory Requirements	ACIAR actions
29	PHYSEC 3	Agencies must ensure they fully integrate protective security early in the process of planning, selecting, designing and modifying their facilities.	ACIAR will integrate protective security early in the process of planning, selecting, designing and modifying of facilities.
30	PHYSEC 4	Agencies must ensure that any proposed physical security measure or activity does not breach relevant employer occupational health and safety obligations.	ACIAR ensures that physical security measure or activity does not breach relevant health and safety obligations.
31	PHYSEC 5	Agencies must show a duty of care for the physical safety of those members of the public interacting directly with the Australian Government. Where an agency's function involves providing services, the agency must ensure that clients can transact with the Australian Government with confidence about their physical wellbeing.	ACIAR ensures that members of the public interacting with ACIAR can do so in confidence about their physical wellbeing.
32	PHYSEC 6	Agencies must implement a level of physical security measures that minimises or removes the risk of ICT equipment and information being made inoperable or inaccessible, or being accessed, used or removed without appropriate authorisation.	ACIAR has physical security measures to minimise risks to ICT equipment and information.
33	PHYSEC 7	Agencies must develop plans and procedures to move up to heightened security levels in case of emergency and increased threat. The Australian Government may direct its agencies to implement heightened security levels.	ACIAR will develop plans and procedures to move up to heightened security levels in case of emergency and increased threat.



## Appendix 8: Compliance checklist

Part of Report	Description	Requirement	Page #
	Letter of transmittal	Mandatory	i
	Table of contents	Mandatory	1–2
	Index	Mandatory	203–6
	Glossary	Mandatory	201–2
	Contact officer(s)	Mandatory	Inside front cover
	Internet home page address and Internet address for report	Mandatory	Inside front cover

### Review by Commission Chair and Chief Executive Officer

	Review by Chair and CEO	Mandatory	9–13
	Summary of significant issues and developments	Suggested	3–8, 10–13
	Overview of department's performance and financial results	Suggested	3–8, 10–13, 74–5
	Outlook for following year	Suggested	12–13
	Significant issues and developments—portfolio	Portfolio departments—suggested	Not applicable

### Departmental Overview

	Role and functions	Mandatory	3–5, 64–5
	Organisational structure	Mandatory	64, 171
	Outcome and program structure	Mandatory	142
	Where outcome and program structures differ from Portfolio Budget Statements / Portfolio Additional Estimate Statements or other portfolio statements accompanying any other additional appropriation bills (other portfolio statements), details of variation and reasons for change	Mandatory	Not applicable
	Portfolio structure	Mandatory for portfolio departments	Not applicable

### Report on Performance

		Mandatory	
	Review of performance during the year in relation to programs and contribution to outcomes	Mandatory	15–59, 143–8
	Actual performance in relation to deliverables and KPIs set out in Portfolio Budget Statements / Portfolio Additional Estimate Statements or other portfolio statements	Mandatory	142–7

Part of Report	Description	Requirement	Page #
	Where performance targets differ from the Portfolio Budget Statements / Portfolio Additional Estimate Statements, details of both former and new targets, and reasons for the change	Mandatory	Not applicable
	Narrative discussion and analysis of performance	Mandatory	15–61
	Trend information	Mandatory	6–7, 10
	Performance of purchaser/provider arrangements	If applicable, suggested	Not applicable
	Significant changes in nature of principal functions/ services	Suggested	Not applicable
	Factors, events or trends influencing departmental performance	Suggested	6–7, 10
	Contribution of risk management in achieving objectives	Suggested	71–2
	Social inclusion outcomes	If applicable, mandatory	164
	Performance against service charter customer service standards, complaints data, and the department's response to complaints	If applicable, mandatory	Not applicable
	Discussion and analysis of the department's financial performance	Mandatory	74–5
	Discussion of any significant changes from the prior year or from budget.	Suggested	Not applicable
	Agency resource statement and summary resource tables by outcomes	Mandatory	172
	Developments since the end of the financial year that have affected or may significantly affect the department's operations or financial results in future	If applicable, mandatory	Not applicable

## MANAGEMENT ACCOUNTABILITY

### Corporate Governance

	Agency heads are required to certify that their agency comply with the Commonwealth Fraud Control Guidelines.	Mandatory	73
	Statement of the main corporate governance practices in place	Mandatory	64–75
	Names of the senior executive and their responsibilities	Suggested	65, 66–8, 171, 207–8
	Senior management committees and their roles	Suggested	71–2
	Corporate and operational planning and associated performance reporting and review	Suggested	162, 172
	Approach adopted to identifying areas of significant financial or operational risk	Suggested	71–2

Part of Report	Description	Requirement	Page #
	Policy and practices on the establishment and maintenance of appropriate ethical standards	Suggested	72
	How nature and amount of remuneration for SES officers is determined	Suggested	65
<b>External Scrutiny</b>			
	Significant developments in external scrutiny	Mandatory	69
	Judicial decisions and decisions of administrative tribunals	Mandatory	Not applicable
	Reports by the Auditor-General, a Parliamentary Committee or the Commonwealth Ombudsman	Mandatory	70
<b>Management of Human Resources</b>			
	Assessment of effectiveness in managing and developing human resources to achieve departmental objectives	Mandatory	163–5
	Workforce planning, staff turnover and retention	Suggested	189
	Impact and features of enterprise or collective agreements, individual flexibility arrangements (IFAs), determinations, common law contracts and AWAs	Suggested	164
	Training and development undertaken and its impact	Suggested	164
	Work health and safety performance	Suggested	165
	Productivity gains	Suggested	162
	Statistics on staffing	Mandatory	163–4, 189–90
	Enterprise or collective agreements, IFAs, determinations, common law contracts and AWAs	Mandatory	164
	Performance pay	Mandatory	164
Assets management	Assessment of effectiveness of assets management	If applicable, mandatory	74, 193, 194
Purchasing	Assessment of purchasing against core policies and principles	Mandatory	162
Consultants	The annual report must include a summary statement detailing the number of new consultancy services contracts let during the year; the total actual expenditure on all new consultancy contracts let during the year (inclusive of GST); the number of ongoing consultancy contracts that were active in the reporting year; and the total actual expenditure in the reporting year on the ongoing consultancy contracts (inclusive of GST). The annual report must include a statement noting that information on contracts and consultancies is available through the AusTender website.	Mandatory	162

Part of Report	Description	Requirement	Page #
Australian National Audit Office Access Clauses	Absence of provisions in contracts allowing access by the Auditor-General	Mandatory	Not applicable
Exempt contracts	Contracts exempt from the AusTender	Mandatory	162
Financial Statements	Financial Statements	Mandatory	78–139

#### Other Mandatory Information

	Work health and safety (Schedule 2, Part 4 of the <i>Work Health and Safety Act 2011</i> )	Mandatory	165
	Advertising and Market Research (Section 311A of the Commonwealth Electoral Act 1918) and statement on advertising campaigns	Mandatory	163
	Ecologically sustainable development and environmental performance (Section 516A of the <i>Environment Protection and Biodiversity Conservation Act 1999</i> )	Mandatory	165–7
	Compliance with the agency's obligations under the <i>Carer Recognition Act 2010</i>	If applicable, mandatory	164
	Grant programs	Mandatory	163
	Disability reporting—explicit and transparent reference to agency-level information available through other reporting mechanisms	Mandatory	165
	Information Publication Scheme	Mandatory	165
	Spatial reporting – expenditure by program between regional and non-regional Australia	Not applicable to ACIAR	
	Correction of material errors in previous annual report	If applicable, mandatory	Not applicable
	List of Requirements	Mandatory	197–200

# LIST OF ACRONYMS AND ABBREVIATIONS

ACACA	Australia–China Agricultural Cooperation Agreement
ACIAR	Australian Centre for International Agricultural Research
AIFSRC	Australian International Food Security Research Centre
ANAO	Australian National Audit Office
AOP	Annual Operational Plan (of ACIAR)
APS	Australian Public Service
APSIM	Agricultural Production System Simulator
ASLP	Agriculture Sector Linkages Program (Australia–Pakistan)
ATSE	Academy of Technological Sciences and Engineering (Australia)
AusAID	Australian Agency for International Development
AYAD	Australian Youth Ambassadors for Development
CARDI	Cambodian Agricultural Research and Development Institute
CARF	Cambodian Agricultural Research Fund
CAVAC	Cambodian Agriculture Value Chain (program)
CEO	Chief Executive Officer
CGIAR	Consultative Group on International Agricultural Research
CIMMYT	International Maize and Wheat Improvement Center (Mexico)
CPB	coca pod borer
CRC	Cooperative Research Centre
CSF	classical swine fever
CSIRO	Commonwealth Scientific and Industrial Research Organisation (Australia)
DAFF	Department of Agriculture, Fisheries and Forestry (Australia)
DFAT	Department of Foreign Affairs and Trade (Australia)
EBRM	ecologically-based rodent management
EEO	equal employment opportunity
FAO	Food and Agriculture Organization (of the United Nations)
FMA Act	<i>Financial Management and Accountability Act 1997</i>
FMD	foot-and-mouth disease
FMOs	Finance Minister's Orders
FOI	freedom of information
FTE	full-time equivalent (staff)
IA	Impact Assessment (program) (ACIAR)
IARCs	International Agricultural Research Centres
ICARDA	International Center for Agricultural Research in the Dry Areas (Syria)
ICRAF	World Agroforestry Centre (Kenya)
ICRISAT	International Crop Research Institute for the Semi-arid Tropics (India)
IDM	integrated disease management
IFAD	International Fund for Agricultural Development
IFPRI	International Food Policy Research Institute (USA)
IHR	in-house review (ACIAR)
IITA	International Institute of Tropical Agriculture

ILRI	International Livestock Research Institute (Kenya)
INDOVETPLAN	Indonesian Veterinary Plan
IPM	integrated pest management
IRRI	International Rice Research Institute (Philippines)
IUU	illegal, unreported and unregulated (fishing)
IWM	integrated weed management
IWMI	International Water Management Institute (Sri Lanka)
KPI	key performance indicator
LARF	Lao Agricultural Research Fund
MAF	Ministry of Agriculture and Fisheries (East Timor)
MDGs	Millennium Development Goal
NAMA	Northwest Agricultural Marketing Association (Cambodia)
NARI	National Agricultural Research Institute
NARS	National Agricultural Research Systems
NESB	non-English speaking background
NGO	non-government organisation
ODA	official development assistance
ODE	Office of Development Effectiveness
OH&S	occupational health and safety
OIE	World Organisation for Animal Health
PARDI	Pacific Agribusiness Research for Development Initiative
PCR	polymerase chain reaction
PGR	plant genetic resource
PIC(s)	Pacific island country(ies)
PNG	Papua New Guinea
PRB	permanent raised bed
QTL	quantitative trait locus
R&D	research and development
RMD	remote microscope diagnostics
RoU	Record of Understanding
RPM	Research Program Manager
RSA	Republic of South Africa
SADI	Smallholder Agribusiness Development Initiative
SES	Senior Executive Service (of APS)
SMAR	Support for Market-Driven Adoptive Research
SME	small-medium enterprise
SoL	Seeds of Life (program)
SPC	Secretariat of the Pacific Community
TSI	Torres Strait Islands
Unitech	University of Technology (PNG)
USP	University of the South Pacific
WSD	watershed development
WTO	World Trade Organization

# INDEX

## A

- abbreviations and acronyms, 201–2
- ACIAR Act, 65, 71
- ACIAR Commission *see* Commission for International Agricultural Research
- active research projects, 173–86
- administered program, 142–6
- Adoption Pathways projects, 8, 52
- adoption studies, 59, 60–1
- advertising and market research, 163
- Afghanistan, 6, 38, 44–5, 149, 185, 186
- Africa, 12, 47–8, 50, 52–5, 60, 145, 149–50, 185, 186
- African Regional Office, 53
- Agriculture Sector Linkages Program, 3, 8, 11, 43
- aid program, 3–5, 10
- AIFSRC *see* Australian International Food Security Research Centre
- Annual Operational Plan, 68, 162, 164, 172
  - performance tracking, 147–8
- appointments to staff, 12
- asset management, 74, 193, 194
- Audit Committee, 71–2
- audits, 71–2
- AusAID
  - collaboration with, 3, 8, 10, 11, 16, 19, 22, 29, 35, 43, 48, 154
  - Director-General, 64, 67, 69
  - funding, 3, 19, 32, 38, 45
  - scholarships, 56
  - Youth Ambassadors, 57
- AusTender, 162, 163
- Australia Awards program, 12, 56
- Australian International Food Security Research Centre, 8, 12, 47, 48, 52–5
- Australian National Audit Office, 71, 72

## B

- Bangladesh, 6, 8, 38, 41–2, 150, 153, 173, 185
- basis of authority, 170
- Bhutan, 6, 38, 46, 149, 173

- bilateral programs, 38, 173–85
- bonuses, 164
- Botswana, 149, 186
- building capacity *see* capacity building
- Burundi, 47, 53
- business plans *see* Annual Operational Plan; corporate planning

## C

- Cambodia, 6, 8, 11, 28, 32, 61, 145, 150, 151, 173–4, 185, 186
- Canada–Australia partnership, 8, 12, 53, 55
- capacity building
  - activities, 54, 148
  - in impact assessment, 61
  - research capacity, 7, 56–7
- CGIAR, 12, 31, 51–2, 146, 147
- Chair's review, 10–13
- Chief Executive Officer (CEO), 65
  - remuneration, 65
  - review, 10–13
  - role and functions, 64, 65, 170
- Chief Executive's Instructions, 162
- Chief Finance Officer's review, 74–5
- China, 6, 11, 28, 36, 151, 152, 174
- CIMMYT, 44, 45, 52
- Comcover, 71
- Commission for International Agricultural Research, 64, 65–9
  - Chair's review, 10–13
- communicating research, 7, 57–9, 148
- Comprehensive Aid Policy Framework, 3–5
- consultants, 162
- contracts, 162–3
- corporate directory, 207–8
- corporate governance, 64–75
- corporate planning, 11, 13, 68, 162, 172 *see also* Annual Operational Plan
- Crawford Fund, 29, 54, 57, 58
- CultiAF, 8, 12, 53, 55

## D

departmental program performance, 147  
disability reporting, 165  
disclosure of interests, 68

## E

East Timor, 6, 7, 11, 22, 25, 51, 143, 144, 152, 174, 186  
ecologically sustainable development and environmental performance, 165–7  
economic evaluations, 59–60  
Egypt, 47, 174, 186  
Employee Assistance Program, 165  
energy use, 167  
enterprise agreements, 164  
ethical standards, 72  
Ethiopia, 47, 53, 54  
expenditure, 5–7, 75  
external scrutiny, 10–11

## F

Fiji, 19, 20, 21, 146, 155–6, 175  
financial accountability and compliance, 71–3  
*Financial Management and Accountability Act 1997*, i, 65, 71  
financial performance, 6–7, 74–5, 172  
financial statements, 80–139  
fraud control, 72, 73  
freedom of information, 165  
functions see roles and functions

## G

governance framework, 64  
grants, discretionary, 163

## H

health and safety, 165  
human resources management, 163–5

## I

Impact Assessment program, 59–61  
independent audit report, 78–9  
independent review, 10–11, 68

India, 6, 8, 38–40, 150, 153, 175–6, 186  
Indonesia, 6, 7, 11, 22–4, 144, 152–4, 176–8, 185, 186  
Information Publication Scheme, 165  
information security, 194–5  
insurances, 71  
internal audit, 72  
International Agricultural Research Centres, 33, 38, 51–2  
International Development Research Centre, Canada, 8, 12, 53, 55  
International Fund for Agricultural Development, 22, 31  
Iraq, 6, 38, 45–6, 149, 185, 186

## J

John Allwright Fellowships, 8, 12, 56, 144  
John Dillon Fellowships, 12, 56, 57, 144

## K

Kenya, 53, 54  
key performance indicators, 143–7  
by country, 149–59  
Kiribati, 19, 146, 155, 178, 185

## L

Laos, 6, 8, 11, 28, 31, 61, 145, 151, 155, 178–9, 186  
leadership development, 57  
learning and development, 164  
legislation, 65, 170

## M

Malawi, 53  
market research, 163  
measuring research impacts, 7, 59–61, 148  
media coverage, 58  
Mekong countries, 6, 11, 28–35, 145, 150–1, 158, 185, 186  
Millennium Development Goals, 12  
Minister, 64; powers of, 170  
ministerial directions, 68, 170  
mission statement, 142  
mobile communication technologies, 58



Mozambique, 47, 53, 179  
multilateral program, 7, 38, 51–2, 185–6  
Myanmar, 6, 8, 11, 28, 33–5, 150, 179, 185, 186

## N

national interest (Australia), 49–50  
Nepal, 6, 38, 44, 150, 153, 179, 186

## O

operational plan see Annual Operational Plan  
organisational structure, 64, 171  
outcome, 142; resources for outcome, 172  
outlook, 12–13

## P

Pacific island countries, 6, 7, 16, 19–22, 146, 155–6, 185  
Pakistan, 6, 8, 11, 38, 43–4, 61, 143, 156–7, 179–80  
Papua New Guinea, 6, 7, 16–18, 60, 143, 152, 157, 180–1, 185, 186  
performance management (staff), 164  
performance pay, 164  
performance report see tracking performance  
personnel security, 193–4  
Philippines, 6, 7–8, 22, 25–7, 143, 157–8, 181–2  
physical security, 195–6  
plans and planning  
business continuity, 193  
corporate, 11, 13, 68, 162, 172  
fraud control, 72  
Policy Advisory Council, 64, 69–71  
Portfolio Budget Statement, 142  
portfolio membership, 64  
Protective Security Policy Framework, 191–6  
public awareness activities, 58  
Public Service Act 1999, 65, 71  
publications, 58, 187–8  
purchasing, 162–3

## R

research capacity, 7, 56–7  
research communication, 7, 57–9 see also publications

research impact measurement, 7, 59–61, 148  
research program support, 7, 147  
research that benefits Australia, 49–50  
resources for outcome, 172  
revenue, 75  
review of ACIAR, 10–11, 68  
risk management, 71–2  
roles and functions  
ACIAR, 3–5  
ACIAR Commission, 64, 65  
CEO, 64, 65, 170  
Policy Advisory Council, 64, 69  
Rwanda, 47, 53, 54

## S

Samoa, 19, 20, 146, 155, 182  
security framework, 191–6  
Seeds of Life program, 11, 25  
senior executive, 65, 66–8, 171  
Senior Executive Service officers, 163  
senior management committees, 71–2  
SIMLESA, 8, 12, 50, 52, 145, 185  
social inclusion, 164  
social media, 58, 59  
Solomon Islands, 7, 19, 20, 146, 182–3, 185  
South Africa, 47, 49, 183  
south and west Asia, 6, 38–46  
south-east Asia, 6, 7, 8, 11, 28–32, 61, 173–4, 178–9, 184–6  
staff  
appointments, 12  
performance management, 164  
remuneration, 65, 163–4  
snapshot (profile), 163  
statistics, 163–4, 189–90  
turnover and retention, 163, 189  
statutory reporting, 152–67  
strategic goals, 4–5  
Strategic Plan, 11, 13, 68 see also Annual Operational Plan  
study assistance, 164

## T

Tanzania, 8, 48, 53, 150, 183  
Thailand, 6, 11, 28, 32–3, 158, 183  
Tibet Autonomous Region, 28, 36, 152  
Timor Leste see East Timor  
Tonga, 19, 20, 183  
tracking performance  
deliverables and KPIs, 143–7  
KPIs by country, 149–59  
against Operational Plan, 147–8  
against PBS, 142–7  
regional/program achievements, 15–61  
statutory reporting, 152–67  
training for ACIAR staff, 164, 191, 195  
training program, 7, 56–7  
trilateral partnerships, 10, 11, 152

## U

Uganda, 47, 53, 54

## V

Vanuatu, 19, 20, 146, 155–6, 183–4, 185  
Vietnam, 6, 7, 8, 11, 28–30, 61, 144, 158–9,  
184–6  
vision statement, 142

## W

website, 57, 58  
address, inside front cover  
work health and safety, 165  
workplace diversity, 165

## Z

Zambia, 53  
Zimbabwe, 47, 53, 149, 185

# CORPORATE DIRECTORY

ACIAR  
GPO Box 1571  
Canberra ACT 2601  
AUSTRALIA

Telephone +61 2 6217 0500  
Fax +61 2 6217 0501  
aciar@aciar.gov.au

## CEO

Dr Nick Austin  
Telephone: 02 6217 0520  
nick.austin@aciar.gov.au

## Country Offices

### North Asia

Mr Wang Guanglin (A/g)  
Telephone: +86 10 5140 4172  
guanglin.wang@dfat.gov.au

### Indonesia

Ms Frances Barns  
Telephone: +62 21 2550 5578  
frances.barns@dfat.gov.au

### Papua New Guinea

Ms Emily Flowers  
Telephone: +675 325 9333 ext 299  
emily.flowers@dfat.gov.au

### Philippines

Ms Cecilia Honrado  
Telephone: +63 2 757 8241  
cecilia.honrado@dfat.gov.au

### South Asia

Dr Kuhu Chatterjee  
Telephone: +91 11 5139 9925  
kuhu.chatterjee@dfat.gov.au

### Cambodia, Lao People's Democratic Republic, Thailand and Myanmar

Khun Chiraporn Sunpakit  
Telephone: +66 2 344 6300 ext 483  
chiraporn.sunpakit@dfat.gov.au

### Vietnam

Mr Geoff Morris  
Telephone: +84 4 831 7755 ext 202  
geoff.morris@dfat.gov.au

## International Agricultural Research Centers

Ms Cherree Webeck  
Telephone: 02 6217 0524  
webeck@aciar.gov.au

## Research program management

### Agricultural Development Policy/Senior Adviser

Dr Simon Hearn  
Telephone: 02 6217 0547  
hearn@aciar.gov.au

### Agribusiness

Dr Rodd Dyer  
Telephone: 02 6217 0548  
rodd.dyer@aciar.gov.au

### Agricultural Systems Management

Dr Caroline Lemerle  
Telephone: 02 6217 0530  
caroline.lemerle@aciar.gov.au

### Animal Health

Dr Mike Nunn  
Telephone: 02 6217 0540  
mike.nunn@aciar.gov.au

### Crop Improvement and Management

Dr Eric Huttner  
Telephone: 02 6217 0527  
eric.huttner@aciar.gov.au

### Cropping Systems and Economics/Senior Adviser

Dr John Dixon  
Telephone: 02 6217 0531  
john.dixon@aciar.gov.au

### Education and Training

Ms Sharon Harvey  
Telephone: 02 6217 0503  
sharon.harvey@aciar.gov.au

## Fisheries

Dr Chris Barlow  
Telephone: 02 6217 0508  
chris.barlow@aciar.gov.au

## Forestry

Mr Tony Bartlett  
Telephone: 02 6217 0549  
tony.bartlett@aciar.gov.au

## Horticulture

Mr Les Baxter  
Telephone: 02 6217 0553  
les.baxter@aciar.gov.au

## Impact Assessment

Dr Debbie Templeton  
Telephone: 02 6217 0541  
debbie.templeton@aciar.gov.au

## Livestock Production Systems

Dr Peter Horne  
Telephone: 02 6217 0522  
peter.horne@aciar.gov.au

## Land and Water Resources

Dr Evan Christen  
Telephone: 02 6217 0561  
evan.christen@aciar.gov.au

## Pacific Crops

Dr Richard Markham  
Telephone: +679 337 9392  
richard.markham@aciar.gov.au

## Soil Management and Crop Nutrition

Dr Gamini Keerthisinghe  
Telephone: 02 6217 0558  
gamini.keerthisinghe@aciar.gov.au

## Corporate support

### Director, Corporate Programs

Mr David Shearer  
Telephone: 02 6217 0548  
david.shearer@aciar.gov.au

## Governance and Parliamentary Liaison

Ms Kim Taylor  
Telephone: 02 6217 0568  
kim.taylor@aciar.gov.au

## Communications and Public Affairs

Mr Warren Page  
Telephone: 02 6217 0535  
warren.page@aciar.gov.au

## Finance

Mr Albert Blair  
Telephone: 02 6217 0567  
albert.blair@aciar.gov.au

## Information Technology and Infrastructure

Mr Andrew Sinclair  
Telephone: 02 6217 0505  
andrew.sinclair@aciar.gov.au

## Human Resources

Ms Sharyn Turner  
Telephone: 02 6217 0556  
sharyn.turner@aciar.gov.au

## Knowledge Management

Ms Joanna Hicks  
Telephone: 02 6217 0578  
joanna.hicks@aciar.gov.au