

Multilateral program

AOP budgeted expenditure in 2007–08	\$10,281,633
Actual expenditure in 2007–08	\$10,615,536
Expenditure in 2006–07	\$10,310,261
Expenditure in 2005–06	\$10,002,356
Proportion of total ACIAR expenditure 2007–08	16.1%

Key performance indicators	Performance 2007–08
Demonstrated project impacts as measured by formal evaluations undertaken by our Impact Assessment Program	Two of the impact assessments undertaken this year were of CG Centre/ACIAR projects. These were the goat breeding and management in the Philippines and white grubs in peanuts in India.
Alignment with ACIAR's funding strategy for the IARCs	\$5.5 million in core funding provided to IARCs and \$5.0 million in project-specific funding provided to 14 IARCs on a competitive basis and aligned with priorities in the ACIAR's 2007–08 Annual Operational Plan and the Centres' Medium-term Plans. Increased involvement of IARCs in ACIAR bilateral projects (24 bilateral projects as of June 2008).

Position

ACIAR is responsible for administering, on behalf of the Australian Government, Australia's contribution to the International Agricultural Research Centres (IARCs). The IARCs are internationally funded, independent, non-profit institutions that carry out research and related activities to help achieve sustainable food security and reduce poverty in developing countries. Research-related activities cover agriculture, forestry, fisheries, policy and environmental management.

The goal of ACIAR's multilateral program is to ensure the effectiveness of, and benefits to, developing countries and Australia from agricultural research conducted by the IARCs with funds provided by Australia.

ACIAR's policy position for contributions to the IARCs recognises that the mandate of the IARCs is highly relevant to the objectives of Australia's aid program and involves the following parameters:

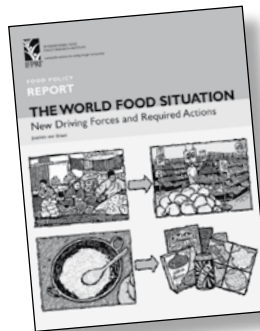
- allocating around 20 per cent of ACIAR's total appropriation to the IARCs
- allocating between one-third and one-half of ACIAR's annual IARC investment as project-specific funding, while half to two-thirds is allocated to core or unrestricted funding
- focusing the unrestricted funds on a reduced number of centres, based on comparative research advantages.

The IARCs have considerable research capability and a good track record of delivery of benefits, particularly in crop improvement, where very high returns on investment have been achieved.

Disbursement of multilateral funds, 2007–08

In 2007–08 contributions for core funding of International Agricultural Research Centres (IARC) amounted to 51.8 per cent of actual multilateral expenditure. This reflects the need for the IARCs to have sufficient unrestricted funds to maintain flexibility and open up new research directions, and to maintain long-term programs such as the gene banks. Project-specific funding accounted for 47.5 per cent, with the remaining 0.6 per cent of total multilateral research funding allocated to other regional support activities. Fourteen IARCs received core funding (untied to specific projects). The allocations are based on the comparative advantage of individual IARCs to deliver research applicable to Australia’s regional priorities.

Of the 14 centres receiving core funding, four are located in the Asia–Pacific region and another seven have a mandate that covers staple crops in the region. The remaining two, CAB International (CABI) and the International Food Policy Research Institute (IFPRI), are responsible for research information systems



and food policy respectively (see table on page 117).

Fourteen IARCs received project-specific funding through ACIAR this year. Twelve of the centres are associated with

the Consultative Group on International Agricultural Research (CGIAR), while (CABI) and the World Vegetable Centre work in areas of agricultural development of particular interest to Australia (see table on page 117).

Project-specific research funding is designed to build tripartite research linkages, which allow scientists from IARCs, advanced research institutions in Australia and national agricultural research institutes in developing countries (particularly those that are ACIAR bilateral partners) to interact on specific issues.

Projects developed under project-specific funding arrangements operate as part of ACIAR’s 11 discipline-based research programs. IARC projects complement and add value to the bilateral programs run by the discipline areas. Eight new activities were initiated and 10 completed in 2007–08. A total of 35 projects, including these, were active in 2007–08.

ACIAR also supports relevant CGIAR system-wide initiatives. These are cross-centre programs that link research complementarities of different centres to address and resolve global and regional issues through strategic research approaches.

The allocation of project-specific funding to an IARC and, where appropriate, Challenge Programs of the CGIAR will be considered annually on a competitive basis, where projects are selected on the basis of:

- relevance to ACIAR’s country priorities
- impact focus



- networking with the NARS in ACIAR partner countries and with Australian research agencies
- consistency with ACIAR's Annual Operational Plan
- justification, scientific merit and consideration of equity among IARCs.



Project examples

Project-specific funding has provided selected IARCs with opportunities to undertake research built around themes that reflect ACIAR's bilateral priorities. Many are reported on in the country programs, but the following projects merit additional comment.

As detailed in the report for southern Africa, a project has supported efforts of **ICRISAT** to promote the application of small doses of nitrogen fertiliser for smallholder farmers in the Limpopo Province of South Africa. Testing in farmer-managed maize trials revealed a consistent yield benefit even in the driest seasons from the small doses of additional nitrogen.

The China report gives the background to an economic analysis undertaken by **IFPRI** to study the technical barriers limiting agricultural trade of China. The study concluded that capacity building in both the public and the private sectors was needed to help China move toward better food safety status and create more trade opportunities.

The end of 2007 saw the conclusion of ACIAR's involvement in **ICARDA** work to conserve, document and utilise ancient and new plants collected during expeditions in central Asia and the Caucasus. This work has yielded a priceless resource of cereals, food legumes, pasture and forage varieties, and oil seed crops.

Funding support for **CABI** is enabling it to undertake a large body of work in Papua New Guinea to combat pests that affect its cocoa and coffee industries. The work includes a project to manage cocoa pod borer; another project seeks to sustainably manage coffee green scale pests in PNG while a third hopes to prevent the incursion of coffee berry borer into PNG and also South Sulawesi and Papua in Indonesia.

CIP has targeted poverty alleviation and food security in the Indonesian province of Papua through improving its sweet potato-pig systems. In another CIP project scientists are using pathogen-tested planting materials to improve sustainable sweet potato production in Solomon Islands and Papua New Guinea.

IRRI is undertaking a program to overcome chalkiness in rice, which occurs in high temperatures during grain filling. Scientists hope that the study of the genetic mechanisms of low-chalk in temperate lines will enable them to incorporate similar traits into tropical varieties. Another IRRI project continues to make steady progress towards its long-term goal of apomixis in rice (seed production in which the genetic makeup of progeny plants is identical to that of the hybrid parent). In achieving this goal it will be possible to make the benefits of hybrid rice more readily available to poor farmers.

ACIAR has partnered with AusAID to fund projects to increase sustainable wheat and maize production in Afghanistan under the auspices of **CIMMYT**. The first phase was completed in mid-2007, and the reviewers acknowledged the strong performance of this project in a risky and stressful environment. Further work, reported in the Afghanistan

section, is now under way to maximise the opportunity for development and identification of resilient varieties to meet national and regional needs.

Work is also progressing under similarly difficult circumstances in Iraq to bring improved wheat, barley and pulse crops and better cropping practices to parts of the country under the guidance of **ICARDA**. ICARDA and CIMMYT also continue in partnership in efforts to maintain productivity and food security through sustainable control of yellow rust of wheat in Asia.

As reported in the Burma section, **ICRISAT** is identifying and distributing high-yielding chickpea, groundnut and pigeonpea cultivars adapted to the cropping systems of the country's Central Dry Zone of Burma. The project team also hopes to increase the productivity through inoculation with high-quality rhizobia (nitrogen-fixing bacteria).

A project with **ILRI** as the principal organisation but working in partnership with **IFPRI** and others seeks to improve the competitiveness of pig producers in an adjusting Vietnam market. Successful commercial smallholder pig farming may help to meet demand while serving as a vehicle for alleviating some of the country's widespread rural poverty. ILRI is also a partner of ICRISAT in a project that brings together plant breeders and livestock nutritionists to improve the quality of millet, a dual-purpose crop used widely by smallholder dairy farmers in India.

As part of efforts to rehabilitate vegetable production in the tsunami-affected areas of NAD Province, Indonesia, the **World Vegetable Center** is introducing integrated soil and crop management practices through farmer-participatory research trials. Another project is likewise introducing integrated crop management packages for sustainable smallholder gardens in Solomon Islands. A third project under way in Indonesia is

studying several diseases in chilli pepper – anthracnose, *Phytophthora* blight and whitefly-transmitted geminiviruses – with a view to introducing integrated disease management (IDM).

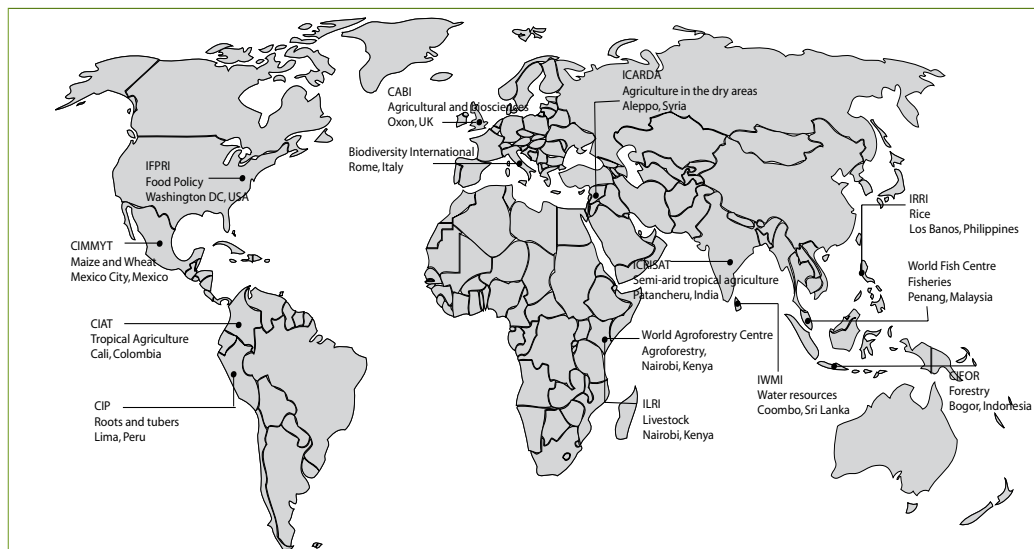
Also in Indonesia, **CIFOR** is helping to improve economic outcomes for smallholders growing teak in agroforestry systems. Many smallholders do not have sufficient income to wait until trees mature; they also lack knowledge of silvicultural techniques and have limited market access. The project is targeting these barriers and will identify improvements in silviculture, financing schemes and access to market. Another project is enhancing the structure and functioning of the furniture industry to benefit small-scale producers of mahogany and teak.

Sea cucumbers (sometimes known as sandfish) have been chronically over-exploited throughout the Asia-Pacific region. But ACIAR-funded studies have enabled scientists at **WorldFish** to develop technologies for producing them in hatcheries and releasing them in the wild. Now additional research is helping to improve sustainability and profitability of village sea cucumber fisheries in Solomon Islands and to introduce the technologies elsewhere. Another project is reviewing recent findings in Vietnam and New Caledonia that sandfish can grow two to three times faster in earthen ponds than in the wild, with comparatively high survival.

CIAT has taken part in trials of forage legumes for pig feeding in Laos. Pigs that received extra protein from the addition of stylo leaves to their diet reached market size four months earlier than those fed traditional diets.

An ACIAR-supported project involving **CIP** is working to combat the highly destructive late potato blight that is ravaging crops in the PNG highlands. The project is developing affordable blight-resistant varieties and backing this approach with low-impact reliable fungicides to deal with emergencies.

Location of international centres receiving core funding from ACIAR



ACIAR funding to international agricultural research centres in 2007–08

Acronym	Centre title and location	Core Funding	Project-specific funding	Total
Centres associated with CGIAR				
CIAT	International Centre for Tropical Agriculture, Colombia	\$250,000	\$127,596	\$377,596
CIFOR	Centre for International Forestry Research, Indonesia	\$250,000	\$321,571	\$571,571
CIMMYT	International Maize and Wheat Improvement Centre, Mexico	\$750,000	\$633,260	\$1,383,260
CIP	International Potato Centre, Peru	\$250,000	\$357,569	\$607,569
ICARDA	International Centre for Agricultural Research in Dry Areas, Syria	\$250,000	\$232,137	\$482,137
ICRAF	World Agroforestry Centre, Kenya	\$250,000	\$0	\$250,000
ICRISAT	International Crops Research Institute for the Semi-Arid Tropics, India	\$500,000	\$431,853	\$931,853
IFPRI	International Food Policy Research Institute, USA	\$500,000	\$181,442	\$681,442
ILRI	International Livestock Research Institute, Kenya	\$250,000	\$270,053	\$520,053
BI	Bioversity International, Italy	\$250,000	\$148,361	\$398,361
IRRI	International Rice Research Institute, the Philippines	\$750,000	\$561,038	\$1,311,038
IWMI	International Water Management Institute, Sri Lanka	\$500,000	\$371,407	\$871,407
WORLD FISH	World Fish Centre, Malaysia	\$500,000	\$327,475	\$827,475
Centres not associated with CGIAR				
AVRDC	The World Vegetable Centre, Taiwan	\$0	\$663,109	\$663,109
CABI	CAB International, UK	\$250,000	\$420,322	\$670,322
Total funds to IARCs		\$5,500,000	\$5,047,193	\$10,547,193
Regional Support				
APAARI	Asia Pacific Association of Agricultural Research Institutions			\$68,343
Total Multilateral funding				\$10,615,536