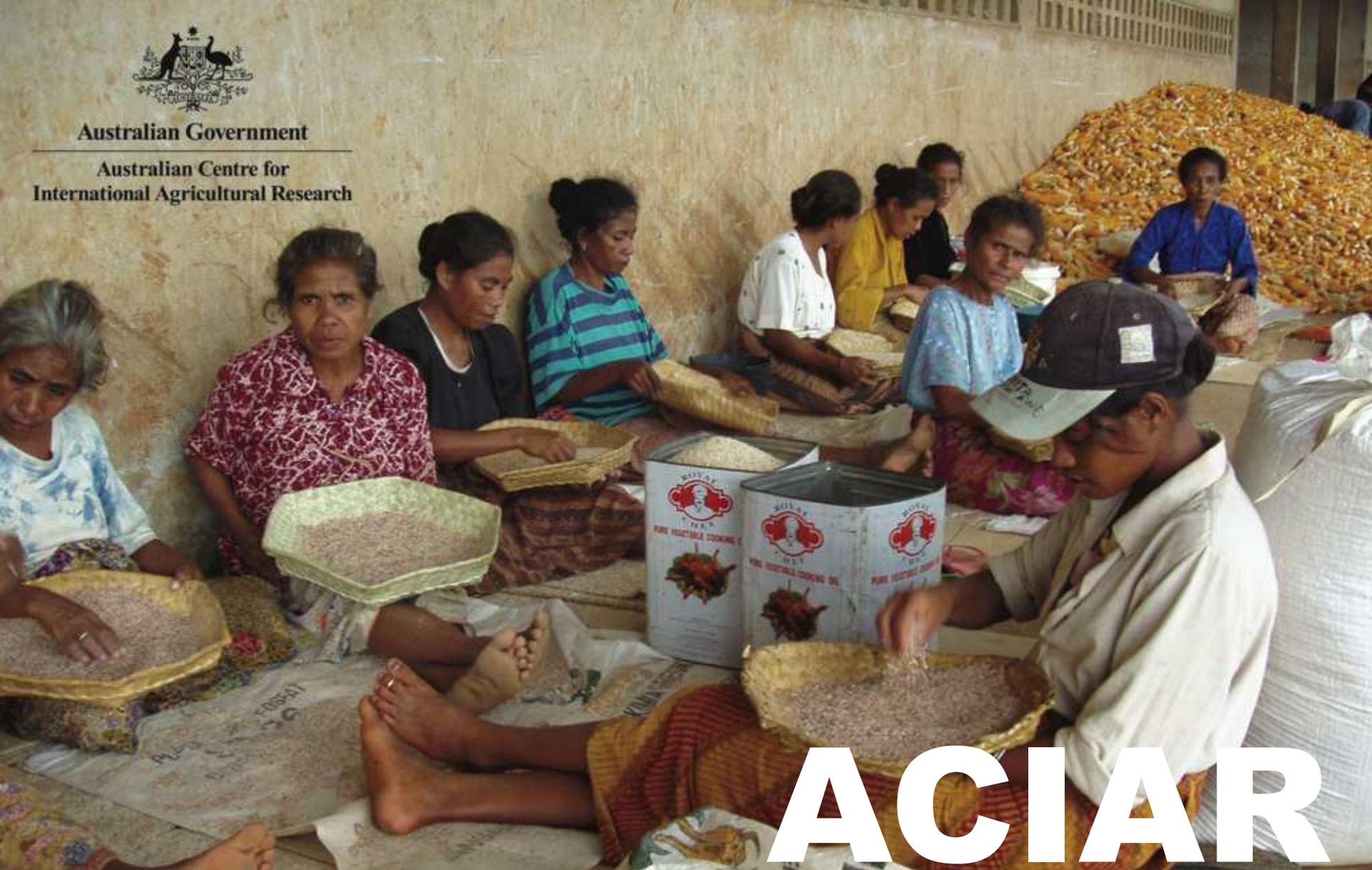




Australian Government

Australian Centre for
International Agricultural Research



ACIAR

AUSTRALIAN CENTRE FOR INTERNATIONAL AGRICULTURAL RESEARCH



ACIAR RESEARCH PARTNERSHIPS: a case study for enabling policy

Simon Hearn
Principal Adviser

ACIAR



Food Security & Productivity

- Food security crises and price volatility have placed agriculture and food value chains back on the development agenda
- Agricultural development assistance comprises 7% of total aid (in Australia) but is likely to increase further
- Agricultural productivity and market access are the two critical components of food supply growth and rural development
- Research and extension provide the connection for productivity growth with an estimated need for 70% increase in food supply by 2050

ACIAR



Agricultural growth and poverty

- Three quarters of the world's poor live in rural areas and rely directly or indirectly on agriculture (including fisheries and forests) for livelihoods
- Many low income developing countries spend up to 80% of income on food
- World Bank research indicates agricultural growth is twice as effective in reducing poverty as non-agricultural growth
- The Bank estimates that a 1% increase in agricultural yields leads to between 0.6% and 1.2% reduction in people living below US\$1/day

ACIAR



ACIAR's Role

- Deliver research outcomes to improve sustainable agricultural production in developing countries
- Fund informal and postgraduate training to build developing-country research capacity and deliver and implement projects
- Communicate the results and impacts of its research
- Conduct and fund development activities that support research programs
- Administer the Australian Government's contribution to the research centres of the Consultative Group on International Agricultural Research

ACIAR



International Agricultural Research: how it benefits Australia as well as developing countries

Crawford fund task force concluded that international agricultural research partnerships:

1. Are highly effective aid with real and significant benefits to Australian farmers
2. Enhances Australian research capacity, delivering greater Australian productivity
3. Leads to more Australian food exports, as well as to increased agricultural productivity in the developing world, contributing to global food security

Source: Crawford Fund December
2013

ACIAR



Australian Research and Production Strengths

- Experienced in the production of food in arid/ semi-arid conditions with low quality soils and climate variability
- Strong links and capabilities in delivering rural assistance and capacity building
- Strong linkages to international research
- Strong and visible R&D base with private/public funding
- Acknowledged capability in climate research, human health and nutrition
- Agricultural policy experience including water and environment relevant to developing countries

ACIAR



ACIAR's Research Projects

- Address the challenge of food insecurity in the developing world
- Align with priorities set in consultation with ACIAR partner countries and manage projects in partnership with developing country research and farm agencies
- Provide for capacity building through project participation and formal training courses
- Achieve sustainable agricultural practices that lift productivity to deliver community impacts
- Manage the challenges to agriculture from a changing global climate

ACIAR projects are subject to early adoption studies 3 years after completion and subsequent impact assessment to provide accountability and improved decision making

ACIAR



ACIAR's Impact Assessments

- Independent impact assessments of 120 ACIAR projects have demonstrated estimated total benefits of A\$31.6 billion with benefits attributable to ACIAR investments of A\$15.9 billion from an outlaying of A\$372 million (in 2010 dollar values)
- These costs were approximately funded on a 55% to 45% basis between ACIAR and collaborators giving credence to the partnership character of ACIAR research initiatives
- Total benefit: cost ratio (BCR) across all ACIAR projects since inception based on these numbers would be 6:1
- The return is mostly in the form of increased farm incomes

ACIAR



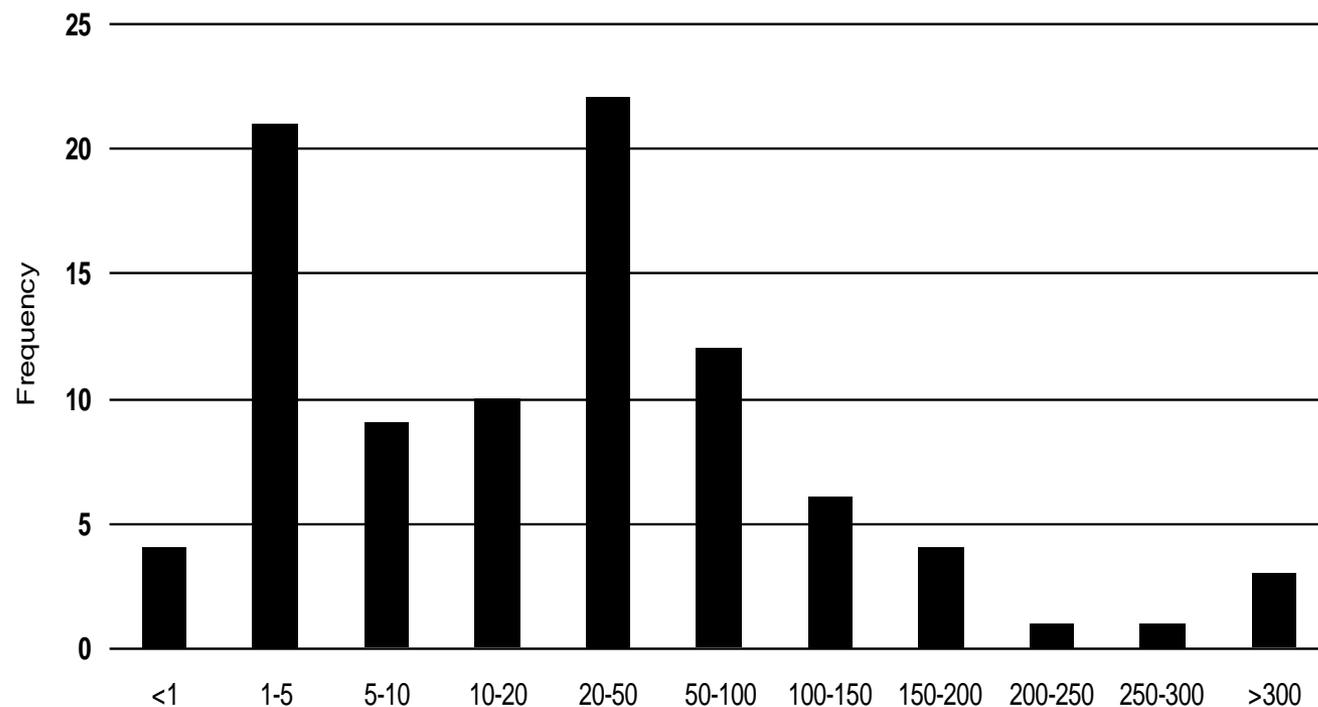
Comparative Results

- Overall the results show that ACIAR programs have been generally successful
- The majority of projects achieved a benefit:cost ratio greater than 1
- Some 16% of projects assessed have a benefit : cost ratio of over 100 which skews the result somewhat
- Results often show higher returns to research in developing countries due partly to lower initial yields

ACIAR



Distribution of benefit:cost ratios across ACIAR research projects for which there is quantitative information in the ACIAR Database for Impact Assessments (ADIA)



Data sources: ADIA; Centre for International Economics calculations

ACIAR



Examples of recent successful partnership projects

- ACIAR's investment in research on forages in Indonesia (BCR 28:1)
- ACIAR's fruit fly research (partnerships 1984-2007) (BCR 5:1)
- ACIAR's fisheries projects in Indonesia (BCR 52:1)
- Identifying the sex pheromone of the sugar cane borer moth in PNG (BCR 46:1)
- Improved Australian tree species for Vietnam (BCR 79:1)
- Management of internal parasites in small ruminants in the Philippines (BCR 10:1)
- Breeding and feeding pigs in Vietnam (BCR 159:1)

ACIAR



Multilateral investments

- ACIAR and other Australian agencies also provide funding to the Consultative Group on International Agricultural Research (CGIAR) Centres
- An aggregation of five studies undertaken on CGIAR research benefits illustrates a conservatively estimated benefit:cost ratio of 2.7:1 in ACIAR's mandated regions
- Wider studies based on less definitive data suggest returns of 3.9:1
- Germplasm from international centres (eg: CIMMYT) has helped to enhance competitiveness in Australia by increasing yields or reducing costs

ACIAR



Australian Benefits from R&D Partnerships

- Available evidence from past ACIAR funded projects suggests important benefits to Australian agriculture
- Based on independent estimates, the aggregated returns to Australia of ACIAR investments were around A\$1.2 billion (in 2008 dollar equivalents)
- This represents some 10% of total returns

ACIAR



Mutual Benefits to Australian Agriculture

The quantified benefits based on 16 impact evaluations covering 29 projects show benefits in four main categories:

- New production technology (44% of total)
- Indirect/direct protection from pests and diseases (47% of total)
- Increased trade benefits (9% of total)
- Increases in stock of knowledge of Australian researchers (not quantified)

ACIAR



Lessons Learnt from ACIAR Impact Assessments and Adoption Studies

Lessons learnt by ACIAR could benefit wider research community (characteristics of ACIAR projects that are most successful) including five broad lessons:

1. The ability of research partners to communicate and work harmoniously
2. Effective project management skills
3. Sound communication to stakeholders
4. Institutional settings that are conducive to adoption and impact
5. Incentives to participate, disseminate and adopt project results

ACIAR



Future Impact Measurement Challenges

- To assess and measure non-market benefits from R&D (environmental, social)
- Measuring R&D adoption impacts on wider rural development and poverty alleviation
- Ascertaining more accurately the contributions of technical research to development and poverty reduction
- Defining capacity building impacts from collaborative research

ACIAR