ACIAR and Tasmania

Looking back – Looking forward
ACIAR’s niche remains...

An independent agency in Australia’s Foreign Affairs portfolio.

Mandate: to amplify the impact of Australia’s outstanding capabilities in agricultural science by brokering and funding agricultural research-for-development partnerships in East Asia, Pacific, South Asia and East and Southern Africa for the benefit of partner countries and Australia.
2016-17 ACIAR Budget
340 Projects
ACIAR and Tasmania

Looking back - Looking forward

acr.gov.au
The tropical regions of the world are the most dynamic in the global economy and growing rapidly.
Indonesia today ...

16th-largest economy in the world

45 million members of the consuming class

53% of the population in cities producing 74% of GDP

55 million skilled workers in the Indonesian economy

$0.5 trillion market opportunity in consumer services, agriculture and fisheries, resources, and education

... and in 2030

7th-largest economy in the world

135 million members of the consuming class

71% of the population in cities producing 86% of GDP

113 million skilled workers needed

$1.8 trillion market opportunity in consumer services, agriculture and fisheries, resources, and education

Source: McKinsey Global Institute, 2012
Tasmania has diverse and highly relevant research expertise including forestry and natural resource management, horticulture, fisheries and livestock sectors - but the opportunities are much wider than that.
ACIAR-Tasmania collaboration

Since 1983 Tasmanian institutions have led 15 projects worth $14 million.

13 of these since 2000 and 3 current (value $3.3 mill):

- Livestock (Vietnam)
- Forestry (Indonesia, Vietnam)
- Fisheries (PNG)

Tasmanian institutions have been a partner in many others
Benefits to Australia

Research delivering benefits to developing countries and Australia.

Benefit to cost ratios for ACIAR projects, as measured by independent evaluations, typically range from 5:1 to 50:1

Benefits to Australia include biosecurity surveillance and response, pest and disease management, new varieties.
The virulent TR4 strain of fusarium wilt has devastated the Cavendish BANANA export industry of Asian countries (Malaysia, Indonesia and now Philippines).

Collaborative research in Asia has helped to improve strategies for ‘containing’ the disease and develop new ecologically-based ways of reducing its impact (e.g. use of ground-covers).

Participation in ACIAR research overseas heightened ‘readiness’ of Australian researchers and farmers when a new outbreak was confirmed near Tully in March 2015.
Benefits to Tasmania - one example

As a result of recent ACIAR funded UTAS beef projects, Vietnamese researchers undertaking post graduate research at UTAS, on Tasmanian based issues.

<< Nguyen Viet Don lambs being fed high Omega 3 grain

ACIAR wants to invest in potentially transformational research for the farmers of 2050
ACIAR and Tasmania

Looking back - Looking forward
Pressing global challenges..

• To develop more sustainable food systems
  – using less land, water, nutrients & energy per unit output
  – while conserving biodiversity and human livelihoods
• To decouple economic growth from carbon emissions
• To adapt to an increasingly difficult climate
• To increase water productivity
  – Decoupling the 1 litre per calorie relationship
• To increase energy productivity
  – more food energy out per unit of energy input
  – while shifting from fossil fuels to renewable energy
• To do all of this simultaneously
OUT OF A WORLD POPULATION OF 7 BILLION

- About 2 billion people suffer from micronutrient malnutrition
- Nearly 800 million people suffer from calorie deficiency

OUT OF 5 BILLION ADULTS WORLDWIDE

- Nearly 2 billion are overweight or obese
- One in 12 has type 2 diabetes

OUT OF 667 MILLION CHILDREN UNDER AGE 5 WORLDWIDE

- 159 million under age 5 are too short for their age (stunted)
- 50 million do not weigh enough for their height (wasted)
- 41 million are overweight

From Promise to Impact. Ending malnutrition by 2030. (IFPRI 2016)
Changing partnerships..

Increasing confidence of national partners

Changing relationships – from prioritisation to negotiation

Increasing direction on priorities from political considerations in-country

Emerging opportunities for coinvestment
Top purpose of cooperation now and in 10 years time

ACIAR is responding...

A new Strategic Plan 2017-2027 will include:

1. Bilateral research collaboration remains the bedrock

2. Research portfolio is mostly sectoral, but grand challenges are cross-sectoral. ACIAR is developing new cross sectoral themes to which all the research will contribute

3. Capacity building – a wider range of approaches; increased investment, alumni network; grads

4. Evaluating impacts – develop new best practice approaches
ACIAR is responding...

5. Showcasing outcomes – expanding our efforts in communications

6. Longer-term projects – up to ten years? ACIAR seeks to co-invest more strongly in Australian research capacity

7. Potentially transformational research
Potentially transformational research

- Digital Agriculture (e.g. apps, SMS, sensors, telemetry, drones, robotics, data)
- Mechanisation (for smallholders with a gender lens)
- Insurance & finance
- Molecular genetics in dryland cropping
- Seasonal forecasting & risk management
- Climate- resilient farming systems
- Carbon emissions accounting
- Landscape fire management
- Nutrition-sensitive agriculture
- Water policy reform
Working for a better world

more productive and sustainable agricultural systems for the benefit of developing countries and Australia through international agricultural partnerships
<table>
<thead>
<tr>
<th>Strategic alignment</th>
<th>Research for development</th>
<th>Delivery partnerships</th>
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<td>Country priorities</td>
<td>Researchable Issues</td>
<td>Australian Partners</td>
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<tr>
<td></td>
<td>Are there specific research questions to be answered, including adaptive or applied research questions?</td>
<td>Is the necessary skillset and expertise available in Australia?</td>
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<tr>
<td>Australian priorities</td>
<td>Solvable</td>
<td>Country Partners</td>
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<tr>
<td></td>
<td>Is the issue solvable by research in the current state of knowledge?</td>
<td>Is the necessary skillset and expertise available in country including institutes with a relevant mandate but low capacity that could be strengthened by the collaboration?</td>
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<td>Sustainable</td>
<td>Complementarity</td>
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<td>Will the research results have potential to increase gender equality?</td>
<td>Is there potential for complementarity with investments by the public sector, Australian aid program, or international agencies?</td>
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<td></td>
<td>Pro-poor</td>
<td>Private sector</td>
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<td></td>
<td>Will the research have an impact or be conducted in the poorer area of the country?</td>
<td>Is the private sector willing and able to collaborate in the research initiatives and co-invest?</td>
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<td>Shared benefits</td>
<td>Women’s engagement</td>
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<td>What is the potential to economically empower women and girls in this research in the short and long term?</td>
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<td>Scalability</td>
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<td>What is the feasibility of taking the research outcomes to scale?</td>
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Figure 1: Relationship between emissions intensity and milk yield per dairy cow

- Each data point represents a country, based on different countries’ average productivity and associated emissions.

Note: FPCM = fat and protein corrected milk

Source: CCAFS, 2016 Livestock development and climate change