



Australian Government
Australian Centre for
International Agricultural Research



ACIAR-VIETNAM RESEARCH COLLABORATION STRATEGY 2017-2027

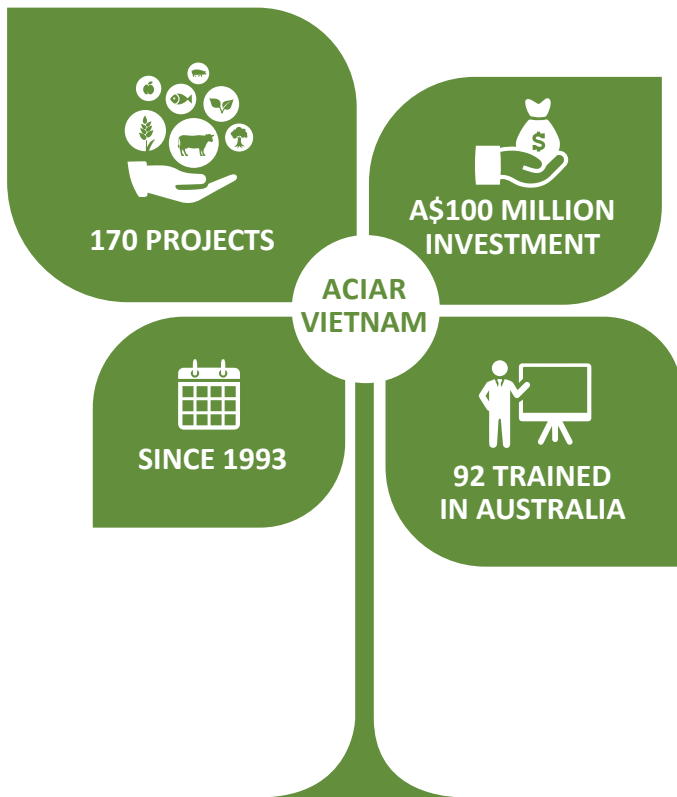




What is ACIAR?

ACIAR is the Australian Centre for International Agricultural Research. It is part of the Australian Government's Development Assistance Program, and contributes to that Program's objectives of helping developing countries reduce poverty and achieve sustainable development.

ACIAR was established in 1982. It funds collaborative agricultural research projects carried out by Australian and overseas research institutes. These projects seek to solve agricultural problems in developing countries. ACIAR commenced its Vietnam program in 1993.





YEAR
GOALS

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- ① Long-term international partnerships in research and technology development established and sustained
 - ② Improved capacity of Vietnam researchers, research managers and development partners to support sustainable and equitable growth through agricultural research
 - ③ Improved skills, livelihoods and incomes of smallholder farmers, including ethnic minorities in mountainous areas of Central Highlands and North West Highlands, supported by knowledge networks that allow profitable engagement in domestic and international markets
 - ④ Improved human health and nutrition through research on integrated farming systems, nutrition-sensitive agriculture and One Health

- ⑤ Improved quality and safety of meat, fish, vegetables and fruit for domestic consumption
 - ⑥ Deeper knowledge of markets that assist in prevention or mitigation of economic shocks for participants in the agricultural supply chains
 - ⑦ Reduced inputs of chemicals and fertiliser per unit of production with a cleaner environment, safer produce, improved soil health, and more profitable sustainable production systems
 - ⑧ Improved resource use efficiency, producing more food with fewer resources
 - ⑨ Practices implemented and policy-makers informed to manage climate change impacts in agriculture.
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RESEARCH THEMES



Theme 1: Food safety

Research collaboration under this theme is expected to build on earlier projects with a focus on food safety, particularly in pork supply chains in northern Vietnam, vegetable production (principally in northern Vietnam), and improving the quality of fisheries products. Additional research opportunities are:

1. Biocontrol methods for pests and diseases in horticulture and crops
2. Assessing food safety risks and developing clean and safe meat supply chains
3. Improved chemical use in vegetable production and supply chain management
4. Improved biosecurity, including diagnosis and management of animal diseases, particularly zoonoses, and antimicrobial resistance
5. Analyses of policy interventions and possible regulatory reforms.





Theme 2: Climate Change

Specific research under this theme could include:

1. Breeding and selection for adaptation to biotic and abiotic stresses, including salt-tolerant varieties (e.g. rice), drought and heat-tolerant varieties (including fruit trees), and breeding of plantation tree species resistant to drought in the central coastal area of Vietnam
2. Policy and economic analysis of opportunities for alternative crops and production systems in areas subject to sea level rise and saline intrusion
3. Development of 'low carbon' technologies and practices to reduce greenhouse gases, and maximise the effective exploitation of waste from crop and animal production, and aquaculture
4. Analysis of the economics of land-use change and adoption of new varieties and management practices, as well as of possible policy interventions
5. Filling animal feed gaps, particularly during winter in the Northern Highlands and the dry season in the Central Highlands and Mekong Delta.



Theme 3: Soil fertility and crop-livestock systems


Research collaboration under this theme will focus on improving soil health, developing biocontrol and integrated pest management practices, reducing costs of production and reducing post-harvest losses. Research may also focus on sustainable intensification of smallholder livestock production in crop–livestock systems, with a focus on cattle, goats and pigs.

Specific research under this theme could include:

1. Developing better skills to analyse nutrient deficiencies in fruit and vegetables and developing appropriate solutions
2. Improving the quality and value of temperate fruits
3. Improving the quality and quantity of safe vegetables for both increasing provincial consumption (and increasing health and nutrition) and supply to major markets such as Hanoi and Ho Chi Minh City
4. Improving the sustainability of cropping systems on sloping land (including animal feed and transition to perennial tree crops where appropriate)
5. Improving the resource use efficiency and profitability of livestock production in crop–livestock systems in mountainous areas
6. Improving plant nutrition and crop management for non-rice crops in the Mekong Delta





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7. Diagnosing and managing soil-borne diseases, and reducing chemical inputs in intensive cropping systems in the Central highlands (pepper, coffee)
 8. Adding value to crop and animal production waste including use as fertilisers and soil conditioners.
 9. Developing commercial medicinal plants and non-timber forest products
 10. Improving the availability and sustainability of groundwater resources in intensive production areas
 11. Developing water-saving irrigation technologies to reduce production costs, and reduce contamination of chemical fertilizers and pesticides
 12. Developing organic agriculture, organic fertilizer products, nano-fertilizers.



Theme 4: Market engagement

Research collaboration under this theme will enable the emergence of inclusive agribusinesses by understanding global supply chains and how producers can cost-effectively meet the standards and market requirements for higher value markets. This will require enhanced animal and plant health, traceability and quality control to meet regional and international sanitary and phytosanitary requirements. It will also require a better understanding of the impacts of new regulatory regimes and macro or micro policies.

Specific research under this theme could include:

1. The role and form of producer organisations, including improving their access to technology, finance, inputs and markets
2. Improvement in agrifood value chains through understanding efficiencies and constraints to improving value and policies that provide incentives for increasing investment. Piloting value chains which has linkage with global value chains. Research towards application and synchronization of Vietnam's standards with the global standards
3. Policies to support agricultural restructuring, analysis of factor markets (such as land, water and labour, capital and technology)
4. Regional market analysis for certain commodities where Vietnam has a particular opportunity, commencing with beef and cassava, vegetables, fruits, coffee, and pork.





Theme 5: Forestry

Specific research under this theme will build on the well-established research cooperation and could include:

1. Sustainable development of plantations, forest health and value-added processing
2. Sustainable and economic rehabilitation and management of native forests
3. Sustainable development of non-timber forest products
4. Forest product marketing, to improve the utilisation for high value products
5. Sustainable agroforestry systems on sloping lands.





Theme 6: Aquaculture

Specific research under this theme could include:

1. Developing genetic and breeding technologies, with potential target systems being shrimp (black tiger (*monodon*), whiteleg (*vannamei*) and freshwater), lobster, marine fish (especially pompano, grouper), bivalves, abalone, sea cucumbers and seaweeds
2. Developing production technologies for sustainable production of seafood at small scale and low cost. Potential target systems include seaweed, pearl, and sea cucumber
3. Co-management of waterways and water rights
4. Building better capacity for disease diagnostics and response
5. Monitoring, assessing and improving environment management in areas of intensive aquaculture production
6. Developing novel and cost effective feeds for aquaculture.





CAPACITY BUILDING

ACIAR will continue to support capacity building for researchers through



On-the-job mentoring and training within research projects and through formal skill training programs (both short courses and broader cross-project skills training)



Master and PhD study in Australia (the John Allwright Fellowship), will support research topics that are aligned with the priorities identified in this strategy



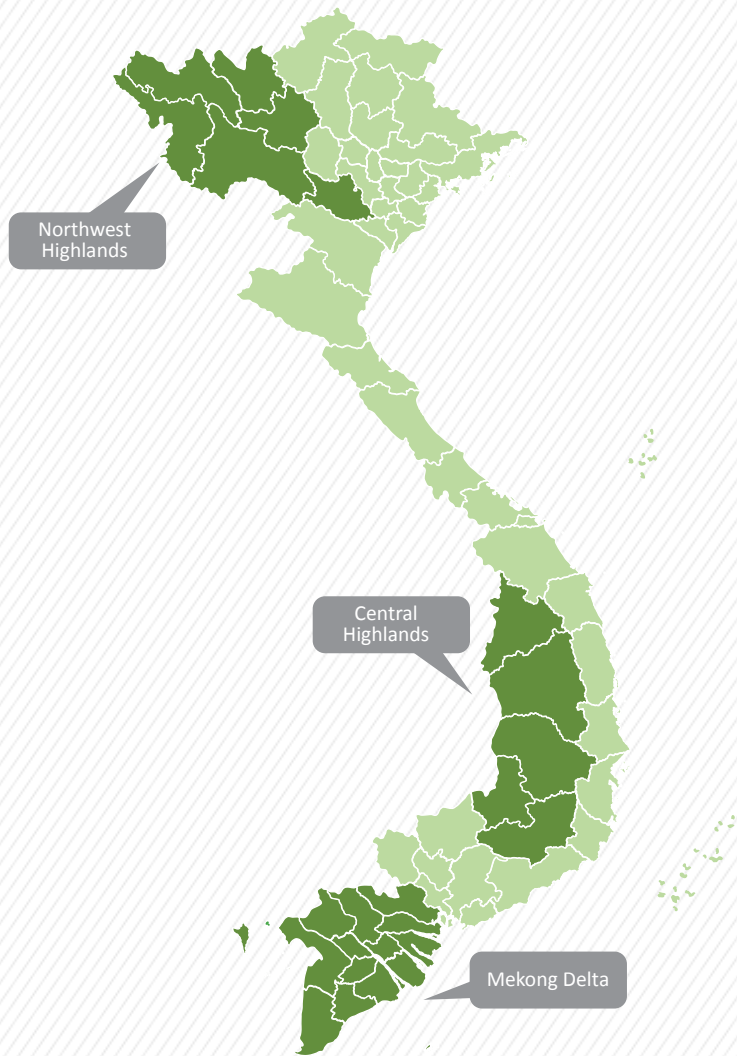
Leadership and management training in research through the competitive John Dillon Fellowship



Maintaining an alumni network of returned scholars and project researchers in country.



GEOGRAPHIC FOCI



North West Highlands

ACIAR-supported research has established strong research partnerships in the North West Highlands, principally in Lao Cai, Lai Chau, Dien Bien, and Son La provinces. This region is home to some of the remoter and poorer populations of Viet Nam and to a large number of ethnic minorities. The focus has been on selective breeding and development of plantation trees (acacia, eucalyptus), agroforestry systems, vegetable production and marketing, beef cattle production with H'mong farmers in Dien Bien, and temperate fruits and maize systems on sloping land.

Central Highlands

The Central Highlands is a source of intensively produced high value cropping (especially coffee, pepper, cocoa and vegetables) and tree crops (including timber, rubber and cashew). These systems are challenged by a range of problems including pests and diseases, sustainability of current intensive systems, product quality and access to markets. The region is also home to a large number of ethnic minorities which Viet Nam is keen to support with profitable and sustainable farming practices.

Mekong Delta

The Mekong Delta region is Vietnam's single largest agricultural region with significant production of major commodities including rice, fruit, and fisheries. The region is, however, particularly vulnerable to the impacts of climate change. Although rice is the dominant crop, the region is increasingly diversifying into intensive production of other commodities. There is an urgent need for research to support farmers with climate adaptation strategies.

Across the country

Fisheries research will predominately focus on marine aquaculture, and hence have a mostly coastal footprint.

Forestry research will initially focus on agroforestry and natural forest regeneration research in the North West highlands. Other research on plantation forestry and value added processing may occur across the country.

GENDER & EQUITY

Promoting women's economic empowerment, including ethnic minorities



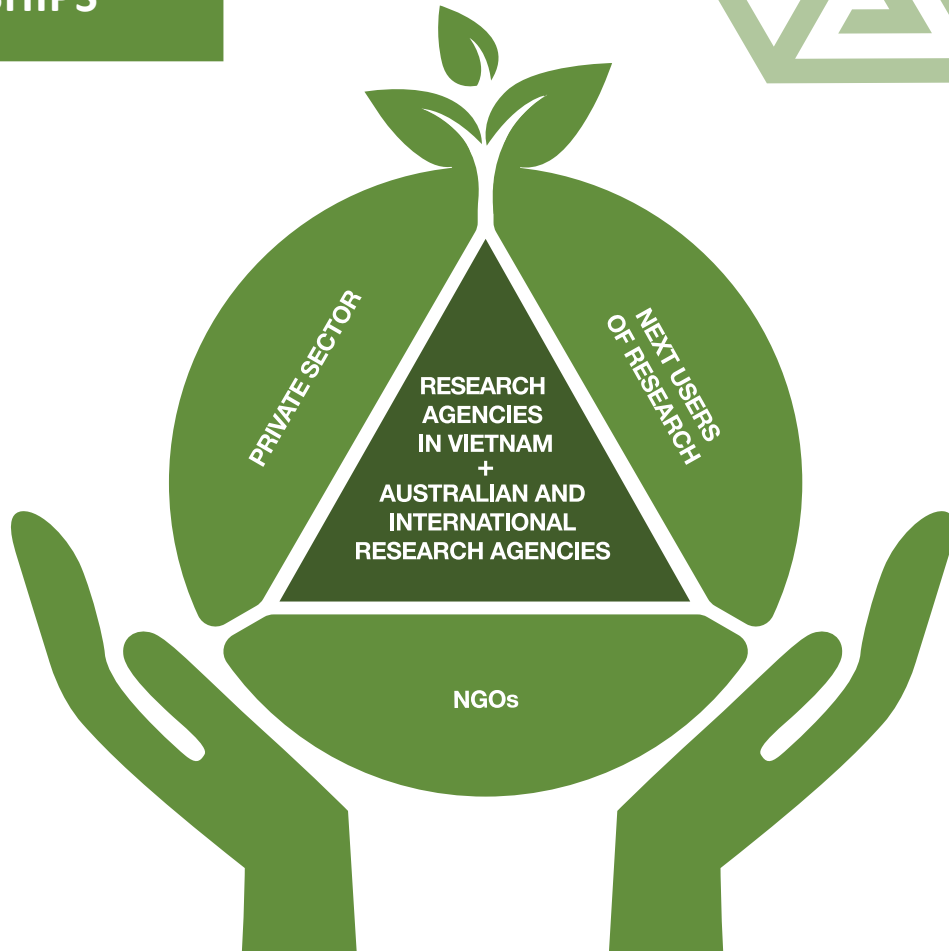
Research on social and gendered dimensions of agriculture



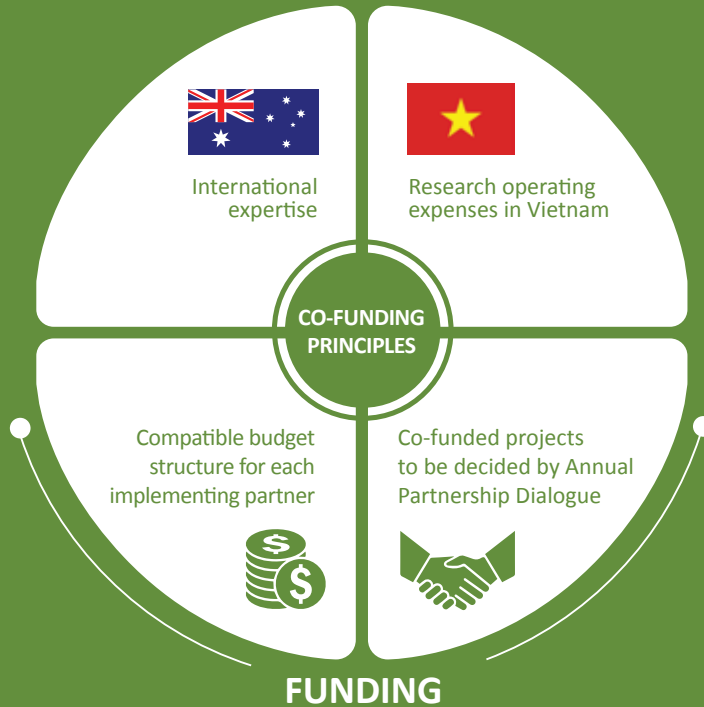
Integrating gender in agricultural research projects



PARTNERSHIPS



FUNDING PRINCIPLES



CO-FUNDED TARGETS

75% CO-FUNDED PROJECTS BY 2027

2 CO-FUNDED PROJECTS PER YEAR FROM THE START



MONITORING, EVALUATION & REPORTING

Over the duration of this strategy, ACIAR will organise an Annual Partnership Dialogue (APD) to:

1. Review the ACIAR program in the context of this strategy
2. Present achievements from the previous 12 months
3. Consider whether the program is fully implementing the strategy
4. Select projects to be planned as co-funded projects
5. Share an awareness of related research and development activities.

ACIAR and Vietnam partners will formally review this strategy after seven years to inform the potential, nature and focus of collaboration beyond 2027.

ACIAR has long-established processes for project monitoring and evaluation which will continue to be applied to projects funded under this strategy. Peer and external review processes will be applied to project design, mid-term reviews and final reviews involving both Vietnam and Australian/international reviewers.



ACIAR'S MISSION

To achieve more productive and sustainable agricultural systems, for the benefit of developing countries and Australia, through international agricultural research partnerships



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ACIAR is based in Canberra with country and regional offices in China, India, Indonesia, Papua New Guinea, Philippines, Pakistan, Lao PDR, Fiji, Kenya and Vietnam.