Indonesia

A$6.5 million
Budgeted funding

24
Bilateral and regional research projects

7
Small projects and activities

While Indonesia has experienced steady economic growth in recent years and achieved substantial development progress, development across the country is uneven—poverty rates are seven times higher in Papua than in Java—and inequality remains a pressing challenge for the government. More than 72 million people in Indonesia continue to live under the World Bank poverty line of $3.20 (PPP) per day. This context makes our work in Indonesia all the more important because sustainable and inclusive economic growth in Indonesia benefits Australia and contributes to regional growth and stability. Australia works in an economic partnership with Indonesia, supporting Indonesia's efforts to tackle inequality and maintain social stability, promote tolerance and pluralism, and counter violent extremism.

An overview of Australia's aid program in Indonesia is available on the DFAT website.

With a population of 270 million people, Indonesia is the world's fourth most populous nation, the world's tenth largest economy and a member of the G20. Indonesia has significantly reduced its level of poverty to 9.4% in 2019. By maintaining political stability, the country is now a middle-income country. Indonesia is on track to become the world's sixth largest economy by 2030.

Indonesia is in the final stage of a 20-year economic development plan (2005–25). The plan is segmented into five-year medium-term plans, called the Rencana Pembangunan Jangka Menengah Nasional, with different development priorities in each phase. The current plan—the last phase of the long-term plan—focuses on infrastructure development, human resource development, ease of investment, bureaucratic reform and better-targeted spending of the national budget toward health care and education.

Of particular focus for ACIAR is the strong encouragement from Indonesia to support deep functional capacity building for both individuals and institutions. The agriculture sector contributed approximately 13% to GDP in 2019 but it employs around one-third of the workforce and remains a vital source of income for rural households. Despite considerable challenges, Indonesia's large areas of arable land and extensive marine resources, combined with a thriving tech innovation ecosystem, offer significant potential for long-term, value-added expansion.

Indonesia's large and distributed agricultural research system, including the provincial Institutes for Assessment of Agricultural Technologies, is vital for the development of the agriculture sector and its contribution to the country's economy. The research system is complex. A new agency, Badan Riset dan Inovasi Nasional (National Research and Innovation Agency), has been established. It falls under the authority of the Ministry of Research and Technology and aims to amalgamate basic research activities previously conducted by several ministries. Consequently, the landscape of Indonesia's national agricultural research system will change substantially and the model for ACIAR partnerships in Indonesia will require significant calibration or wholesale adjustment in the near future, when the changes in the Indonesian national research system are fully established and the consequences for collaboration become clear.

Country priorities

Feeding a nation, especially in the context of the COVID-19 pandemic, has been reasserted as a critical priority for the Government of Indonesia. Under the second term of President Joko Widodo's administration (2019–24), agriculture has attained a higher strategic position, with line agencies tasked to achieve an advanced, modern and independent agricultural system. This has strong implications for ACIAR, as it is the first major reorientation of agricultural research priorities for a decade. Short- and medium-term priorities of the government include:

- establishing the Kostra Tani (strategic command of agriculture development) through human resources development (vocational education and training) and the development of an Agriculture War Room—a single and integrated data system at district level
- strengthening agricultural financing facilities, infrastructure and mechanisation
- improving corporate-based food crop production
- strengthening the competitiveness of horticultural zones
- improving production, value-add and competitiveness of estate crops (especially export-oriented commodities such as cocoa, coffee, rubber, palm oil and tea)
- improving population, productivity and genetic quality of livestock (including poultry)
- improving seed systems innovation and technology
- alleviating poverty through family farming, reducing stunting and food diversification
- enhancing food distribution and price stability on staple crops (rice, maize, soybeans, as well as sugar and beef)
- strengthening biosecurity and quarantine.

In addition to strengthening human resources across all sectors, the Government of Indonesia also has a vision to improve marine and fisheries infrastructure, including fishing ports. This involves strengthening fisheries aquaculture; developing integrated fisheries centres, cold chains and processing facilities; modernising fish markets; and rehabilitating coastal zones.

Cross-cutting priorities between agriculture and forestry sectors include:

- reforming agrarian and community forestry
- improving water quantity, quality and accessibility in relation to forest management, conservation and its ecosystems (including peatland restoration and waste management).

During 2020–21, there will be continued focus and participation on regional and trilateral collaboration. Regional research partnerships with the Philippines, Laos, Cambodia, Timor-Leste and Pakistan and trilateral collaboration with Australia and China provide opportunities to tackle shared challenges. These include developing policy and legislation for fish passages, rural regional transformation, an integrated management response to *Fusarium* wilt in bananas, and the control and prevention of citrus greening disease. There also is an emerging opportunity for trilateral collaboration with Pacific island countries in the aquaculture sector, as part of south–south cooperation.

Aligning with Australian and Indonesian priorities, ACIAR has facilitated a new research collaboration focusing on human health in Indonesia during 2020. It is a new partnership with leading research institutions, such as the Eijkman Institute of Molecular Biology, the University of Sumatera Utara and the University of Gajahmada, focusing on zoonotic malaria in Indonesia.

The COVID-19 pandemic is having a major impact on the food systems and economy of Indonesia. ACIAR is supporting an assessment of food system security, resilience and emerging risks in the Indo-Pacific in the context of COVID-19, which will help identify areas of focus for our research collaboration with Indonesia to increase food systems resilience in the face of future shocks.

Securing the future of coconut

Grown in more than 90 tropical countries, on more than 12 million hectares, coconut is important to millions of smallholder households. The future of coconut production and livelihoods is threatened by senile plantings, which face further decline from pest and disease, climate change and poor conservation and management of genetic resources. Access to coconut genetic diversity is vital to sustaining the livelihoods of millions of smallholders and their communities around the world, particularly in the Asia-Pacific region.

During 2020–21, ACIAR, DFAT and the International Coconut Community will continue their collaboration to reinvigorate and sustain the Coconut Genetic Resources Network (COGENT). The program will focus on better coconut science, through a global coconut strategy to address the challenges outlined above. The program will work with other organisations to ensure a viable COGENT secretariat to safeguard coconut genetic resources and better address disease threats.

The network is active throughout the Asia-Pacific region and led by Dr Jelfina Alouw, Executive Director of the International Coconut Community, who is based in Jakarta, Indonesia.

ACIAR project GP/2018/193

2020–21 research program

ACIAR supports 31 projects in Indonesia, 16 of which are specific to this country. The remainder are part of regional projects. The projects address our high-level objectives, as outlined in the 10-Year Strategy 2018–2027, as well as specific issues and opportunities identified by ACIAR and partner organisations.

The following sections briefly describe individual ACIAR-supported projects and anticipated outputs in Indonesia. The projects are grouped according to research program. Each project description is referenced in a list at the end of this section, which provides the project title and code.

Agribusiness

Success in rural transformation is not only measured by income growth of the rural population, but also by the degree of inclusiveness in society. A project in China, Bangladesh, Indonesia and Pakistan, led by Dr Chunlai Chen of the Australian National University, endeavours to understand the nature and drivers of rural transformation in order to provide better policy advice to underpin the success of transformation. In 2020–21, the project will select study regions and collect data to understand the components of success.[1]

In Indonesia, some 48 million people live in and around forest boundaries, and most rely on upland landscapes for their livelihoods and economic development. Existing policies and land allocation procedures accelerate agricultural expansion into forested catchments, which is reducing agricultural productivity and ecosystem services and leading to increased poverty and food insecurity. Based on analysis of existing policies and procedures, Professor Randy Stringer of the University of Adelaide is leading a project that will provide information and data for land use planning by local and national government, which enhances socioeconomic wellbeing and environmental outcomes.[2]

Coffee and cocoa are Indonesia's third and fourth most important sources of agricultural export earnings. Smallholder farmers are the main producers of these crops, with around two million households involved. While many value-chain approaches to development have been applied to the industry, there has been little research on the effectiveness of these approaches for improving rural livelihoods, achieving broader development goals and encouraging sustainability. A project led by Dr Jeff Neilson of the University of Sydney will report on the impacts of certification schemes, buyer linkages, geographical indicators and downstream processing on smallholder livelihoods and environmental sustainability.[3]

Cassava is an increasingly important crop throughout South-East Asia in terms of both rural livelihoods and regional economic development, and it remains an important food-security crop in specific subregions. The market outlook for cassava, and the prospects for smallholder producers, are strongly linked to supply and demand in global starch, grain and energy markets. A project in Indonesia and Vietnam, led by Dr Dominic Smith of the University of Queensland, aims to make smallholder cassava production more profitable and sustainable, by linking value-chain actors to increase the adoption of improved technologies. The project finishes in 2020 with the delivery of policy recommendations and the development of learning alliances.[4]

Domestic demand for milk in Indonesia significantly outstrips supply and growth of the domestic dairy sector. Until recently, most production occurred on Java; however, the Government of Indonesia has identified 12 additional provinces for dairy development. Dr Wendy Umberger of the University of Adelaide leads a four-year project that has conducted a comprehensive analysis of the dairy sector in west Java and north Sumatra. In its final year, the project will encourage development, policy dialogue and industry advocacy to improve the research capacity of lead agencies, and identify profitable management practices and extension models to enhance adoption of technologies and increase on-farm profitability.[5]

Smallholder farmers are the main producers of coffee and cocoa in Indonesia. An ACIAR-supported project is investigating the effectiveness of value-chain development to improve livelihoods. ACIAR project: AGB/2010/099.

ACIAR is supporting a project that is encouraging the development of the dairy sector in west Java and north Sumatra.
Photo: University of Adelaide. ACIAR project: AGB/2012/099.

Smallholder farmers in South-East Asia often cannot access credit to invest in new crops or technologies, deal with risks and shocks, and safely carry wealth from harvest to planting. To help smallholders reach their production potential, a project led by Dr Alan de Brauw of the International Food Policy Research Institute will review and research financing models for agricultural value chains and evaluate specific interventions in Indonesia, Myanmar and Vietnam. Based on evaluation of agricultural value-chain financing models, the project will work with project partners to design and implement innovative and inclusive models.[6]

A small research activity, led by Dr Chris Chilcott of CSIRO Land and Water, evaluated opportunities to reduce logistics costs to small-scale farmers to contribute to more-informed policy on infrastructure that promotes development and access to markets in Indonesia and Vietnam. The project will further develop an adapted logistics model to better understand links, stakeholders and requirements to operate the model in the two countries.[7]

The rapid growth of tourism in Bali and consequent demand for large quantities of safe, high-quality food are not matched by capacity and capability of local agricultural production and agribusiness. This threatens the social and natural values of the island. Additionally, the unprecedented impact of COVID-19 on agriculture, tourism and the local economy demonstrates the urgent need for a measured and collaborative agribusiness growth plan. Mr Jeremy Badgery-Parker of Primary Principles will conduct a small research activity to prepare a strategic plan to guide engagement and investment in collaborative agribusiness value chains that support livelihoods and reliably and sustainably deliver safe, high-quality products to target markets.[8]

Crops

Mungbean is an ideal rotation crop for smallholder farmers. The International Mungbean Improvement Network, established through an ACIAR-supported project led by Dr Ramakrishnan Nair of the World Vegetable Center, helped realise the potential of mungbean to improve cropping system productivity and livelihoods by improving researchers' access to genetic material, and coordinating and providing technical support to variety development work in Bangladesh, India, Myanmar and Australia. Phase 2 of the network commences in July 2020, continuing variety development for another five years and extending the network to Kenya and Indonesia, providing access to new genetic material and improved cropping options for smallholder farmers in eastern Africa and South-East Asia.[9]

A new species of armyworm, the fall armyworm (*Spodoptera frugiperda*), has caused serious damage to rice, sugarcane, sorghum, beet, tomato, potato and cotton crops throughout the Indo-Pacific region, and individuals have been recorded in northern Australia. The species poses a serious challenge to smallholder farmers in terms of sustainable management practices. A small research activity, led by Dr Wee Tek Tay of CSIRO and co-funded with the Australian Grains Research and Development Corporation, will investigate current successful management options for the pest and determine genetic differences between populations of the pest in South-East Asia and Australia—particularly to understand existing levels of insecticide resistance. The knowledge generated will be useful for future integrated pest-management approaches and the development of a draft resistance management plan.[10]

Fisheries

Indonesia is the world's second largest producer of seaweed, and the industry is one of the few income-generating opportunities for coastal communities in eastern Indonesia. Employing a whole-of-value-chain approach, Associate Professor Nicholas Paul of the University of the Sunshine Coast leads a project that aims to provide a scientific basis to transform and modernise the seaweed industry. The project concludes in 2021 and will consolidate research to improve the quality of seaweeds produced at the farm level and identify opportunities to create innovative products from seaweeds and processing waste streams.[11]

Indonesia is the world's largest producer of tuna. Its fishing fleet is large and diverse, spanning the eastern Indian Ocean and the western and central Pacific Ocean. A project led by Dr Campbell Davies of CSIRO Oceans and Atmosphere is working with Indonesian fisheries scientists, industry and managers to better understand tuna population biology and the effectiveness of monitoring and management systems. The project contributes to the longer-term goal of improving the economic and social benefits of Indonesian tuna fisheries, while reducing the conservation risks to regionally important fish stock.[12]

In Cambodia, about 80% of animal protein consumed originates from freshwater fisheries, which provides full-time and part-time work for about two million people. The development of finfish mariculture in Cambodia has been accelerated through a south–south cooperative research partnership with Indonesia in a project led by Professor Nicholas Paul and Dr Mike Rimmer of the University of the Sunshine Coast, and in partnership with Cambodian and Indonesian fisheries research organisations. Experienced researchers from Indonesia are training Cambodian researchers to gain skills in fish nutrition, hatchery production and fish health to support marine finfish aquaculture development in Cambodia.[13]

The south–south cooperative approach to capacity building in the previous project will be assessed for its potential application to other ACIAR projects. Professor Janelle Allison of the University of Tasmania is advising, facilitating and evaluating teaching approaches for achieving innovative and effective south–south collaboration, which could be applied to future agricultural research and development in the Indo-Pacific region and elsewhere.[14]

Globally, growing momentum for nutrition-sensitive agricultural policy and development assistance is yet to have any impact in the small-scale artisanal fishery sector. To address this, the role and contribution of fish to livelihoods and nutrition security must be supported by rigorous data and communicated at global, national and local scales. A project with a geographical focus of the eastern Lesser Sunda Islands, encompassing the independent nation of Timor-Leste and Nusa Tenggara Timur province of Indonesia, aims to identify the livelihood and nutrition benefits of fisheries and test nutrition-sensitive co-management systems for inshore fisheries. Led by Dr David Mills of the WorldFish Center, the project will evaluate the nutritional value of fisheries to households and identify the factors enabling or limiting the consumption of fish. It will highlight the potential of fish to reduce malnutrition, particularly during early childhood. Through a south–south collaboration, lessons learned for sustainable inshore management in Indonesia will be used to guide policy development in Timor-Leste that benefits poor households.[15]

Across South-East Asia, as floodplains are developed for irrigation and river flows are regulated, river communities are at risk of losing fishing income and an important source of protein and essential nutrients. Previous ACIAR projects showed that fishways, which facilitate passage of migratory fish up and down regulated rivers, can have lasting economic and social benefits for river communities. Professor Lee Baumgartner of Charles Sturt University is leading a project to develop a platform for sound decision-making on fish passage construction programs across South-East Asia, a targeted capacity-building program to address institutional needs for the integration of fish passages into irrigation infrastructure and guidelines for the development of fish passage policy and legislation in Cambodia, Laos, Myanmar and Indonesia.[16]

Forestry

Community-based plantation forestry enterprises have the potential to provide social, economic and environmental benefits for the people of Indonesia. Associate Professor Digby Race of the University of the Sunshine Coast leads a project in Gorontalo, Lampung, South Sulawesi, Yogyakarta and Central Java provinces that continues activities to increase the capacity of forest-farmer groups to make better investment decisions. The project is analysing the social and economic dimensions of two community-based commercial forestry systems to produce evidence to support implementation of these systems at national, provincial and local levels.[17]

Smallholder farmers in eastern Indonesia have long based their livelihoods on the production of timber and non-timber forest products. However, constraints ranging from silvicultural practices to lack of market access has limited productivity and profitability. Mr Aulia Perdana of the World Agroforestry Centre leads a project that aims to improve the production and marketing of timber and non-timber forest products and foster better extension and policy approaches. The project enters its final full year and will consolidate results and learnings to increase scientific understanding of smallholder agroforestry and identify policies and regulations that act as disincentives to smallholders. The project will also identify appropriate business models to develop and commercialise bamboo products.[18]

Smoke haze from indiscriminate burning of peatlands has become a major issue in South-East Asia in recent decades, negatively affecting public health and the economy of several countries in the region. A multidisciplinary program of research led by Dr Daniel Mendham of CSIRO Land and Water is underway to support Indonesia's commitment to achieve fire-wise villages and restore large areas of peatland. The project is conducting research to prevent fires in peatlands and improve peatland restoration practices, while enabling profitable and sustainable alternative livelihoods. It will also look at ways to improve access to, and use of, knowledge on fire prevention and peatland management.[19]

A new project in 2020–21, with activities in Indonesia and Vietnam, will underpin good plant biosecurity practices in forestry. With government and industry partners, the project led by Dr Caroline Mohammed of the University of Tasmania, will extend screening approaches from prior *Acacia/Ceratocystis* research to eucalypts that have replaced acacias in the wet tropics; develop remote-sensing software applications for cheap and rapid forest health surveillance; and, through geospatial modelling, deliver establishment (suitability and survival) risk maps under current and future climates at a regional level for the highest priority pests and pathogens.[20]

Horticulture

About 40 species of tropical fruit flies damage horticultural crops and impede trade throughout South-East Asia. A project in Indonesia and the Philippines builds on the success of previous ACIAR projects, and links to fruit-fly work in other ACIAR partner countries and Australia. The project, led by Mr Stefano De Faveri of the Queensland Department of Agriculture and Fisheries, aims to reduce fruit-fly infestation of mango crops through area-wide management of the pest, and improve pre-harvest and post-harvest practices. The ultimate aim is to improve the yield and quality of crops in order to improve livelihoods and trade opportunities.[21]

Huánglóngbìng, or citrus greening disease, is a destructive bacterial disease of citrus. It is spread mainly by the Asian citrus psyllid and infected propagation material. All commercially cultivated citrus varieties are susceptible to the disease and currently there is no cure. Effective management is considered the largest challenge ever faced by citrus industries worldwide. A new project led by Dr Jianhua Mo of the NSW Department of Primary Industries will leverage international expertise to tackle the deficiencies in current huánglóngbìng management practices. A trilateral project with partners from Australia, Indonesia and China will be conducted to enhance the sustainable management of huánglóngbìng and the Asian citrus psyllid in Indonesia and China, and increase the preparedness of the Australian citrus industry for an incursion of both the disease and the vector.[22]

Livestock Systems

The Government of Indonesia has placed a high priority on self-sufficiency in beef production, but improvements in reproductive efficiency and growth rates of cattle are required to achieve this. Dr Karen Harper of the University of Queensland leads a project to develop simple, low-cost feed rations for cow–calf and cattle-fattening operations. This has the potential to increase the profitability of smallholder and small-scale feedlot systems in Indonesia. It is envisaged that supplementary feeds will complement local feed resources and be based on a small number of low-cost, locally available ingredients.[23]

Dr Mario Herrero of CSIRO Agriculture and Food completes a small research activity in 2020 that reports on the likely competitiveness, resilience and adaptability of smallholder livestock production systems in the future. The study will identify development pathways and review findings, in consultation with key stakeholders, to understand how these production systems can remain an engine of agricultural and human development in the region.[24]

Substantial gains have been made towards eliminating two major parasites (*Plasmodium* spp.) that cause malaria in humans in South-East Asia. At the same time, however, there are increasing cases of malaria in humans due to the transmission of a *Plasmodium* sp. parasite from macaques by certain species of mosquitoes. As part of the Research for One Health Systems Strengthening program (page 77), a small research activity, led by Professor Nicholas Anstey of the Menzies School of Health Research, will establish surveillance for zoonotic *Plasmodium* species of public health importance in Kalimantan and Sumatra, Indonesia.[25] This leads into a research project to evaluate zoonotic malaria transmission and agricultural land use in Indonesia.[26]

There is an urgent need to consolidate existing evidence and identify gaps in global research to demonstrate the scale of reductions in greenhouse gas emissions that occur with more efficient livestock production systems. Using the expertise and capabilities of Australian and New Zealand climate science, Dr Paul (Long) Chen of the University of Melbourne will lead a new project developing methods and models that apply to livestock development projects to quantify real and potential reductions in emissions and determine the opportunities and trade-offs between productivity gain and economic returns. The results will help determine if greenhouse gas offsets can be captured and linked with nationally determined contributions of partner countries, and if there is potential for voluntary carbon-credit trading to diversify smallholders' income.[27]

A trilateral project with partners from Australia, Indonesia and China will investigate sustainable management of huánglóngbìng (citrus greening disease). Photo: ACIAR. ACIAR project: HORT/2019/164.

Soil and Land Management

Coastal and upland agricultural systems support the livelihoods of the majority of rural people in Indonesia. These systems vary in intensity, from predominantly low-value rice production to highly intensive mixed rotations that particularly include shallot and chilli. Shallot and chilli are Indonesia's most significant vegetable commodities and are integral components of Indonesia's unique cuisine. A new project, led by Dr Stephen Harper of the University of Queensland, addresses key issues and challenges associated with the safe and sustainable production and intensification of high-value vegetable cropping options (particularly shallot and chilli) in the sensitive coastal agroecosystems.[28]

Peatland restoration efforts in Indonesia are progressing rapidly, but the success of these efforts is often low or undocumented. Two techniques trialled in previous ACIAR projects, eddy covariance flux towers and chameleon sensors, demonstrated strong potential as tools to empower government and communities to monitor the success of peatland restoration. These techniques monitor changes to peat moisture levels and carbon flux from the ecosystem and integrate this environmental data with local decision-making. This small research activity, led by Dr Samantha Grover of RMIT University, will collect a full 12-month cycle of data from each technique. Stakeholder engagement, which has already commenced, will be a major focus of this project.[29]

Climate Change

ACIAR will add a new research program to its portfolio in September 2020 to focus and strengthen work towards our strategic objective that addresses climate variability and climate change.

Indonesia is home to 36% of the world's tropical peatlands, which can hold up to 20 times more carbon than most other types of mineral soil. However, from 2000 to 2015, around half a million hectares of forest were cleared each year for the cultivation of palm oil. A small research activity led by Professor Deli Chen of the University of Melbourne will analyse information from a range of sources to understand and document the factors affecting the loss of soil carbon from tropical peatlands and identify potential management options to prevent or reduce this loss. The project is a collaboration between Australia, New Zealand and Indonesia to develop recommendations for land managers.[30]

Australia is a world leader in greenhouse gas mitigation research in agriculture. A new project provides the opportunity to transfer this knowledge to assist our partner countries to identify and quantify on-farm management options that reduce emissions from farming practices and help establish national greenhouse gas accounting systems to monitor, report and verify emissions reductions to the same high standard used by Australia. This project, led by Professor Peter Grace of Queensland University of Technology, and co-funded by New Zealand, will work with government and research institutions in Fiji, Vietnam, Indonesia and Kenya to develop expertise to enable those institutions to better support their national governments in meeting current and future nationally determined emissions reduction commitments (NDCs) under the Paris Agreement.[31]

Safe and sustainable production and intensification of high-value vegetable cropping options (particularly shallot and chilli) for sensitive coastal agroecosystems are being investigated. Photo: ACIAR. ACIAR project: SLAM/2018/145.

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See page 209 for contact details

Current and proposed projects

1. Understanding the drivers of successful and inclusive rural regional transformation: sharing experiences and policy advice in Bangladesh, China, Indonesia and Pakistan (ADP/2017/024)
2. Agricultural policy research to support natural resource management in Indonesia's upland landscapes (ADP/2015/043)
3. Evaluating smallholder livelihoods and sustainability in Indonesian coffee and cocoa value chains (AGB/2010/099)
4. Developing value-chain linkages to enhance the adoption of profitable and sustainable cassava production systems in Vietnam and Indonesia (AGB/2012/078)
5. Improving milk supply, competitiveness and livelihoods in smallholder dairy chains in Indonesia (AGB/2012/099)
6. Inclusive agriculture value chain financing [Indonesia, Myanmar, Vietnam] (AGB/2016/163)
7. Enhancing smallholder linkages to markets by optimising transport and logistics infrastructure [Indonesia, Vietnam] (AGB/2017/036)
8. Agriculture for tourism – advancing a synergistic development pathway for both local agribusiness value chains and tourism in Bali, Indonesia (AGB/2020/121)
9. International Mungbean Improvement Network – phase 2 [Bangladesh, India, Indonesia, Kenya, Myanmar] (CROP/2019/144)
10. Characterisation of *Spodoptera frugiperda* (fall armyworm) populations in South-East Asia and northern Australia (co-funded with GRDC) [Indonesia, Vietnam, Laos, Myanmar, Cambodia, Philippines, Malaysia] (CROP/2020/144)
11. Improving seaweed production and processing opportunities in Indonesia (FIS/2015/038)
12. Harvest strategies for Indonesian tropical tuna fisheries to increase sustainable benefits [Indonesia] (FIS/2016/116)
13. Accelerating the development of finfish mariculture in Cambodia through south-south research cooperation with Indonesia (FIS/2016/130)
14. Evaluating processes and outcomes in south-south research collaboration—finfish mariculture development in Cambodia through cooperation with Indonesia (FIS/2018/115)
15. A nutrition-sensitive approach to coastal fisheries management and development in Timor-Leste and Nusa Tenggara Timur Province, Indonesia (FIS/2017/032)
16. Translating fish passage research outcomes into policy and legislation across South-East Asia [Cambodia, Indonesia, Laos, Myanmar] (FIS/2018/153)
17. Enhancing community-based commercial forestry in Indonesia (FST/2015/040)
18. Developing and promoting market-based agroforestry options and integrated landscape management for smallholder forestry in Indonesia (Kanoppi2) (FST/2016/141)
19. Improving community fire management and peatland restoration in Indonesia (FST/2016/144)
20. Managing risk in South-East Asian forest biosecurity [Indonesia, Vietnam] (FST/2018/179)
21. Development of area-wide management approaches for fruit flies in mango for Indonesia, Philippines, Australia and the Asia-Pacific region (HORT/2015/042)
22. Preparedness and management of huánglóngbìng (citrus greening disease) to safeguard the future of citrus industry in Australia, China and Indonesia (HORT/2019/164)
23. Profitable feeding strategies for smallholder cattle in Indonesia (LPS/2013/021)
24. Smallholder livestock futures in South-East Asia [Indonesia] (LS/2018/107)
25. Zoonotic malaria in Indonesia (One Health) (LS/2018/214)
26. Evaluating zoonotic malaria transmission and agricultural and forestry land use in Indonesia (One Health) (LS/2019/116)
27. Value-adding to existing livestock programs to understand and quantify the implications of greenhouse gas emissions, provide options for emissions reduction and inform in-country policy development [Cambodia, Indonesia, Kenya, Laos, Myanmar, Pakistan, South Africa, Tanzania, Timor-Leste, Vanuatu, Vietnam, Zambia] (LS/2019/159)
28. Crop health and nutrient management of shallot–chilli–rice cropping systems in coastal Indonesia (SLAM/2018/145)
29. Assessing and monitoring peatland restoration in Indonesia (SLAM/2020/118)
30. Emissions avoidance of soil carbon from lands undergoing practice change [Indonesia] (WAC/2019/149)
31. Supporting greenhouse gas mitigation for sustainable farming systems in the Asia-Pacific and East Africa [Fiji, Indonesia, Kenya, Vietnam] (WAC/2019/150)