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Australian Centre for
International Agricultural Research

Water and Climate

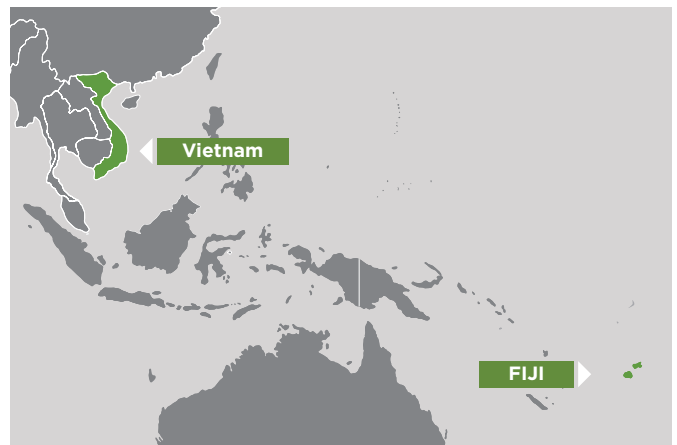
Emission-reduction options for Nationally Determined Contributions in Vietnam and Fiji

Overview

Climate change is a global phenomenon which requires a global response and meeting the targets set out in the Paris Agreement is core to that response. At the centrepiece of the Agreement is a set of voluntary nationally determined contributions (NDCs) to reduce greenhouse gas (GHG) emissions. Many of these NDCs, particularly from developing countries, include agriculture.

At present, many countries in the Asia-Pacific region are not able to deliver on these commitments in a cost-effective and sustainable way due to a lack of locally-appropriate agricultural emission-reduction or offset options; a lack of accounting methods that can recognise and capture these emission-reduction options; and short-falls in capacity, inventory information and systems.

This project will leverage the success of recent Australian mitigation and adaptation research, climate-smart agricultural practices, and emission-reduction research internationally to develop a realistic plan for implementing mitigation options for maximising emissions reduction in Fiji and Vietnam – while maintaining smallholder farmers income and food security.



KEY FACTS

ACIAR Project No. LWR/2017/029

Duration: November 2018 to June 2021

Target areas: Fiji and Vietnam

Budget: A\$500,062

Project Leader

Professor Peter Grace, Queensland University of Technology

Key partners

- Australian National University
- University of Melbourne
- Ministry of Agriculture, Rural and Maritime Development and National Disaster Management, Fiji
- Ministry of Economy, Fiji
- Ministry of Agriculture and Rural Development, Vietnam

ACIAR Research Program Manager

Dr Robyn Johnston

Objective

The overall objective of this project is to identify mitigation options and key capacity development needs in the agriculture sector to support both Vietnam and Fiji in meeting their international NDCs. This includes an assessment of the role of small landholders and potential impacts on food and income security.

This specific aims of the project are:

- Assess the potential to apply carbon farming emission-reduction principles and offset methods appropriate to developing countries in the Asia-Pacific (using Vietnam and Fiji as case studies).
- Develop a governance checklist enabling partner countries to identify, adopt and manage locally appropriate emission-reduction options towards their NDCs.
- A detailed analysis of potential co-benefits to food security, existing capacity gaps and gender considerations in relation to the implementation of carbon farming methods or emission-reduction options in Fiji and Vietnam.

Expected scientific results

- Identify locally appropriate mitigation options through in-country mitigation research to address areas where win-win mitigation and profitability improvements are most likely.
- Building on the Australian experience in developing agricultural offset methods, there is potential for further research on using a similar policy construct to the Carbon Farming Initiative, together with research on specific offset methods, to incentivise agricultural GHG mitigation.
- Investigate alternative and surrogate measures for accounting for agricultural GHG mitigation. This could lead to further research on additional measurement reporting and verification, and surrogate measures in other sectors or other areas of agriculture.
- Practical integration of profitability, climate mitigation and adaptation actions.
- Potential for further research on developing Tier 2 and tier 3 emission factors to underpin the in-country national inventory with more relevant locally established GHG accounting.
- Accurate assessment of the capacity for agriculture to provide effective, scalable mitigation options in the Asia Pacific.

Expected outcomes

- Assistance to science and climate policy in Vietnam and Fiji towards identifying the potential contribution that their agricultural sectors can make towards their NDCs (including the potential co-benefits to agricultural productivity and sustainability).
- Greater avenues for both Fiji and Vietnam to include additional agricultural emission-reduction elements in their Paris Agreement initiatives.
- Increased capacity for science and climate policy in Vietnam and Fiji to identify, adopt and manage emission-reduction options, including surrogate measures to facilitate reporting both through their GHG inventory and in their NDCs reporting, using appropriate tools and resources;
- Improved understanding of the capacity development gaps and gender issues in small landholder communities in Vietnam and Fiji to deliver effective agricultural mitigation, aligned with the co-benefits of improved productivity and sustainability of farming systems and food security.
- Minimised agricultural emissions in Fiji and Vietnam, with farmers improving agricultural efficiency, natural resource management and climate risk management, plus potentially generating diversified income through targeted trading of GHG offsets.
- Deeper engagement and collaboration between agricultural scientists in Australia and New Zealand and their counterparts in the Asia-Pacific, in delivering cost-effective mitigation solutions for farmers in the Asia-Pacific.
- Strengthened capacity of project partners to implement their agricultural GHG inventories, identify and quantify new mitigation opportunities and report agricultural mitigation towards their NDCs.