Agribusiness

Agricultural policy research to support natural resource management in Indonesia's upland landscapes

Australian Government
Australian Centre for International Agricultural Research

Overview

In Indonesia, some 48 million people live in and around forest boundaries. Most rely on upland landscapes for their livelihoods and economic development, but the loss of agricultural productivity and ecosystem services is leading to increased poverty and food insecurity.

Recent studies show that agricultural policies and decentralised administrative systems are contributing to permanent productivity declines in Indonesia's upland catchments. Policies and land allocation procedures accelerate agricultural expansion into forested catchments, encouraging land use practices that result in soil erosion, soil nutrient loss, flooding, landslides, sedimentation and biodiversity loss.

Indonesia's research agencies and the international development community have focused on promoting innovative farm technologies to improve catchment productivity. Researchers have developed 'field-tested' technologies with high potential to be 'more natural resource friendly' and 'more profitable'. However, policy and market incentives leading to low adoption rates of the promoted land use practices have limited their positive impacts.

There is a lack of recent analysis examining how economic policies shape farm household land use decisions in Indonesia's upland catchments. Past research focused on land expansion, especially into forested areas, rather than on how policies influence land management practices, production externalities and environmental outcomes on existing plots.

KEY FACTS

ACIAR Project No. ADP/2015/043
Duration: February 2018 to December 2021 (4 years)
Target areas: Indonesia
Budget: A$1.6 million

Project Leader
Randy Stringer, University of Adelaide

Key partners
- University of New England
- Australian National University
- Indonesian Center for Agricultural Socio Economic and Policy Studies (ICASEPS)
- The World Agroforestry Centre
- World Wildlife Fund (WWF) Jakarta

ACIAR Research Program Manager
Dr Howard Hall

Objective

The project's overall aim is to advise the Indonesian Government on policy interventions that would enhance long-term agricultural productivity, reduce negative environmental externalities and improve household welfare in Indonesia's upland catchments.

The project's three main objectives are to:

- Estimate the socioeconomic and environmental impacts of national and local policies in three upland catchments.
- Estimate how alternative national and local policies influence socioeconomic wellbeing and environmental outcomes in three upland catchments.
- Assess the social, economic and environmental trade-offs and distributional consequences of alternative policies compared with existing policies.

Expected scientific results

- New policy tools for district land use planners that focus on farming households' decision-making and their responses to policy changes.
- A new evidence based to model alternative land use scenarios for policy analysis based on information from socioeconomic and land use surveys.
- Data sets maintained on a secure server accessible to all project partners during project, and after project completion, original, cleaned data sets, code books, questionnaires in Bahasa and English maintained in a research depository.

Expected outcomes

- Strengthened empirical knowledge base to design and target interventions that achieve greater and more equitable agricultural development with improved natural resource use outcomes.
- Policy assessment and decision-making tools that improve public investment choices at village and district levels.
- Local and national policy-makers equipped with the analytical skills that allow them to make improved policy choices.
- Lower economic costs to off-site communities due to lower sedimentation and flooding.
- Lower organic and inorganic pollution leading to reduced water and soil contamination.
- Better soil management leading to improved and sustained productivity.
- More participation and greater information sharing by individuals in their formal and informal social networks, enhanced capacities and participation of women's groups and village organisations in local development decision-making, and better targeting of extension and training to reduce adoption barriers.

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