Australian Government
Australian Centre for International Agricultural Research

Asian Chicken Genetic Gains (AsCGG): A platform for testing, delivering, and improving chickens for enhanced livelihood outcomes in South-East Asia

Key details

Location
Cambodia, Vietnam

Duration

Start Sep 2020 **End** Jun 2025

Budget AUD 2,000,000

Commissioned organisation
International Livestock Research Institute

Partners
E-Merge Centre for Innovations - Africa; International Livestock Research Institute; Livestock Development for Community Livelihood Organisation; National Animal Health and Production Research Institute; National Institute of Animal Sciences

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Program Livestock Systems

Project code LS/2019/142

Overview

This project will generate new insights and methods to address smallholder poultry production and productivity challenges in South-East Asia through a combination of On-Farm and On-Station approaches.

Genetic improvement of chicken strains, linked to improved management, is at the core of improving the village chicken production system on a sustainable basis. There is a long history of attempts to invest in smallholder chicken production in South-East Asia, however most of these investments have failed to deliver impact. Historical failures have largely derived from attempts to use high-producing chicken genotypes created for intensive temperate feeding systems, resulting in the usual production challenges that arise when placing temperate breeds into tropical systems.

However, the technical landscape has changed significantly in recent years; there are new opportunities to leverage high-producing yet low-feed-input birds, which provide a timely opportunity for particularly women farmers to participate – and invest in - chicken value chains in an innovative manner. Maintaining the availability of affordable chicken products for sale and home consumption requires access to high-producing breeds that are vaccinated and brooded (i.e., appropriately cared for) in their early life, as well as adapted to the smallholder context in South-East Asia. This necessitates investment in science-based action research to better understand i) farmers' trait preferences (colour, temperament, etc) ii) suitability of chicken strains to meat and egg production under different agroecology in the Mekong region and iii) potential of the genetic strain type to deliver at scale.

Led by the International Livestock Research Institute, this project builds on the lessons learned from their USD$14M Gates-funded African Chicken Genetic Gains project (ACGG), Tropical Poultry Genetic Solutions | More productive chickens for Africa's smallholders.

Project outcomes

- Creating baseline surveys to define and characterize current smallholder chicken production systems in Vietnam, Cambodia and Myanmar.
- Defining chicken breeds, phenotypes, and genotypes preferred by smallholder farmers in different agroecology and test under on-station and on-farm conditions.
- Developing and nurturing women-centric Innovation Platforms to facilitate village-level interaction on poultry production and health issues (community-level IPs) and enable private sector germplasm access and associated value chain input delivery systems (national-level IPs).
- Enhancing the national and cross-regional capacity of local partner institutions in new approaches to smallholder poultry value chain development.