

# Commercialization of Indigenous Chicken Breeds Through Genetic Resources Utilization and Development

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## Introduction

Laos native chicken production contributes to sustainable food security and providing income source to farmers. However, the native chickens have low egg productivity and high chick mortality because of diseases and poor feeding. The genetic resources of local chickens are also being threatened by expansion of commercial hybrids. This project aims to conserve the local genetic resources, create a new variety of Laos native chicken with high egg production, good growth performance, low chick mortality, and generate farmers' income.



Fig 1. Laos native chicken

## Objectives

Objectives	2020	2021	2022
Creating new Lao native chicken varieties	F4	F5	F6
Increasing egg laying rate and number of chicks	10%	20%	30%
Reducing mortality of chicks	30%	20%	10%
Increasing farmers' income	10%	20%	30%

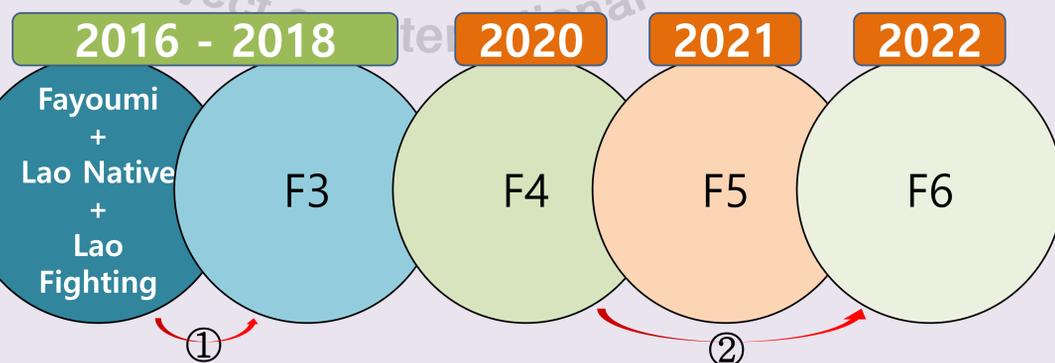


Fig 2. Laos native chicken separated by growth steps and varieties.

## Materials

## Methods

1. Developed chicken variety will be tested in 15 Model farmers and Savannakhet University.
2. LRC supplies 60 chicks(50 hens and 10 cocks) to each Model farmer and University.
3. Farmers will be trained on chicken raising, egg hatching technics and chicken disease control.
4. Data will be collected for egg laying rate, mortality of chicks and farmers' income.



- ① F3 hybrid is by crossbreeding Fayoumi Chicken(25%)+Lao Native Chicken(25%)+Lao Fighting Chicken(50%). F3 hybrid was developed in 2016-2018 through KOPIA Project.
- ② Livestock Research Center(LRC) develops new Chicken Variety, F4(2020), F5(2021) and F6(2022) by using F3 chicken. The selected chickens have black feather which is high demands in Laos market, and good productivity.



Fig 3. Measuring weight of Laos native chickens.



Fig 4. Training for farmers.

## Expected Outputs

- New varieties of chicken breeds will produce more eggs and chickens in a year than most other native chicken breeds in Laos.
- Contribute to food security and income generation from Livestock commercialization.
- Increased and produced more good quality and functional food from Native chicken to meet market demand.
- Sustainable conservation and utilization of Agro-bio diversity, especially native chickens.



Fig 5. Farmers who is raising and controlling native chickens of KOPIA project.

## Future Plan

- Continue to improve F7 generation of new native breed and test on farm.
- Create an inventory for new native chicken varieties of Lao named LK breed.
- Test and Apply LK chicken breed in other parts of Laos.