A reference farmer turns local knowledge into resilient practice

Climate-smart agriculture and farmer–research collaboration

Scope • Madagascar; a community intervention zone linked to FOFIFA trials
Partners • CAADP-XP4, ASARECA, FOFIFA and a reference farmer working with researchers

The starting situation

Farmers in the intervention area faced changing rainfall, heat and pest pressure. Locally available knowledge and materials offered possible responses, but needed to be tested and shared in ways farmers could apply.

How partners contributed

FOFIFA researchers worked with a reference and demonstration farmer willing to test innovations on his own plot and host other producers. Through producer focus groups and surveys, the farmer collected local liquid-biofertilizer recipes. Four maceration methods were compared, laboratory testing identified a preferred recipe, and soil versus foliar application was tested. The team assessed crop performance and insect and parasite pressure, then shared results with producers and micro-entrepreneurs.

The farmer also received about 20 trainings in crop production, livestock and practical skills, short annual theoretical blocks and seasonal practical support. He bought seed from other producers and made his own liquid biofertilizer and compost.

What changed

The farmer adopted water-tolerant varieties, organic fertilisation, water harvesting and crop association to respond to delayed and reduced rainfall, heat and intensified pests. The case reports improved crop performance, lower production costs from using self-made biofertilizer and biopesticides, and reduced pest pressure.

Transplanting-related work reportedly fell from a costly multi-person day to three people working for about two hours. The case also records ongoing constraints: incomplete pest control under high neighbouring pressure, low farm-gate prices set by collectors and limited cost accounting among producers.

Evidence and source

The case graphic includes the farmer’s account and describes testing and practice changes, but does not provide yield measurements, cost records or a comparison plot. Sustainability and lessons

The experience demonstrates the value of combining local recipes, research testing and farmer-to-farmer sharing. Stronger record-keeping, cooperative marketing and producer-led experimentation could help address the gaps identified. Continued collaboration between FOFIFA, farmers and micro-enterprises can refine bio-inputs and climate-smart practices under local conditions.

Source record • SS5 Infographics