

Energy Transition and Climate-Smart Agriculture in Vietnam (ETCAV)

Project Overview

Fieldwork Progress & Completed Phases – with photo illustrations:¹

Phase 1: Pilot Intervention (May 2025)

Phase 2: Pilot Baseline Survey (June 2025)

Phase 3: Baseline Survey (January 2026)

Phase 4: First Round of Intervention (May – September 2026)

Quick Summary: ETCAV is an international research partnership exploring how Vietnam can reduce greenhouse gas emissions and adopt clean energy while continuing to grow its agricultural and industrial economy.

A. Project Overview

How can a growing economy switch to clean, renewable energy without slowing down its agricultural and industrial growth?

Developing nations face a critical balancing act: reducing greenhouse gas emissions and adopting clean energy without stifling economic growth. While the severe impacts of climate change and pollution on health and economic stability in the Global South are well known, the practical steps for a green transition remain heavily underexplored. **The Energy Transition and Climate-Smart Agriculture in Vietnam (ETCAV)** project aims to bridge this gap, transforming theoretical environmental goals into actionable, evidence-based policies that address the defining economic challenge of our time.

Aligning closely with **UN Sustainable Development Goals 7 (Affordable and Clean Energy)**, **12 (Responsible Consumption and Production)**, and **13 (Climate Action)**, ETCAV investigates the real-world implications of sustainable transitions on everyday households and businesses, including both the direct and indirect impacts of adopting clean technology. Specifically, we look at the agricultural sector to determine if financial incentives and strategic information can successfully deter farmers from burning crop residues, thereby protecting local air quality while improving overall farmer wellbeing.

Beyond our core research, ETCAV is deeply committed to long-term capacity building to ensure sustainable progress. By hosting targeted technical training workshops and funding the academic journeys of two Vietnamese PhD scholars, we are actively investing in local research capabilities.

¹ Further photos on phase 1-4 available at: [Photos - Dropbox](#)

This ambitious initiative is spearheaded by the **University of Copenhagen (KU)** in close collaboration with central figures in Vietnam's policy landscape. Our primary partners include the **Institute for Strategy and Policy on Agriculture and Environment (ISPAE)**—the main think-tank within the Ministry of Agriculture and Environment (MAE)—and the **Institute for Policy and Strategy (IPS)**), a key research institute under Commission for Policy and Strategy (CCPS). Supported by specialized field implementation from the **Mekong Development Research Institute (MDRI)**, this coalition guarantees a high degree of local engagement. Because ISPAE and IPS directly draft environmental laws, decrees, and development plans, this partnership ensures our research findings are immediately available to key decision-makers, driving nationwide impact.

B. Fieldwork Progress & Completed Phases

Phase 1: Pilot Intervention (May 2025)

We launched our field operations by testing targeted support mechanisms across **240 rice-growing households** in 12 villages throughout Bac Ninh and Ninh Binh provinces. The primary objective of this initial phase was to evaluate how combining **financial incentives, knowledge sharing,** and **market connections** can effectively encourage farmers to transition from traditional open-field straw burning toward adopting eco-friendly microbial decomposers. The outcomes of this pilot provided foundational insights for our full-scale rollout. By analyzing the pilot results, we were able to rigorously assess which intervention strategies were most suitable and efficient within the specific socio-economic context of the Red River Delta (RRD) provinces, ensuring our official intervention was both scalable and contextually adapted.

Figure 1: Pilot Training Session



Figure 2: Straw Burning Practices



Phase 2: Pilot Baseline Survey (June 2025)

Immediately following the initial intervention, we conducted a survey involving **780 farming households** across 20 villages in Bac Ninh, Ninh Binh, and Hung Yen. This phase focused on testing and validating our household survey toolkits, mobile data collection apps, and field mapping protocols in real-world conditions. By gathering early feedback and observing field conditions, we ensured our full-scale data collection would be accurate, culturally sensitive, and efficient.

Figure 3: Pilot Farmer Interview



Figure 4: Pilot GPS Mapping



Figure 5: Post-Harvest Field Fires - 1



Figure 6: Post-Harvest Field Fires - 2



Phase 3: Baseline Survey (January 2026)

With proven research tools in hand, we launched our comprehensive baseline survey, reaching **2,980 rice-growing households** across 149 villages in Bac Ninh, Haiphong, Hung Yen, and Ninh Binh. This extensive survey collected crucial baseline data on **household demographics, income, rice production techniques, straw management practices, and local environmental awareness**. This rich dataset serves as the official benchmark against which we will measure all future economic, health, and environmental impacts.

Figure 7: Baseline Farmer Interview



Figure 8: Token Assignment Exercise



Figure 9: Baseline GPS Mapping



Figure 10: Winter Burning



Phase 4: First Round of Intervention (May – September 2026)

Most recently, we initiated the rollout of training on sustainable farming practices, partnering directly with approximately **2,000 households and local agricultural shopkeepers** in 100 treatment villages. In each target village, our project leads hosted hands-on training workshops to highlight the severe health and environmental risks of crop residue burning. Farmers received step-by-step guidance and live field demonstrations on **how to correctly apply microbial straw-decomposing products**, laying the foundation for cleaner air and healthier soil across the region.

Figure 11: Initial Training Session



Figure 12: Field Demonstration

