



Tropentag, September 14-16, 2022, hybrid conference

“Can agroecological farming feed the world?  
Farmers’ and academia’s views”

## Agricultural development for sustainable and foreseeable agroecology in the Red River Delta, Vietnam

THI TRANG NHUNG NGUYEN, HONG QUY BUI

*Vietnam National University of Agriculture, Marketing, Vietnam*

### Abstract

This research has sought to analyse the agricultural development in the Red River Delta, Vietnam with perspectives on agroecology. The structure and emphasis of this research have been shaped mainly by the material gathered through the interviews 234 farmers represented 03 farming systems(mono and poly-culture).

Through the adoption of systemic approach of agroecology(objectives-practices-outcomes), this research reviews agricultural sustainability in the region. There is an existence of diverse farming systems but there is a dearth of ecological-based knowledge and practices of farm households. Whole-farm performances gained with different levels of sustainability. From socio-economic perspective, farm households achieve some profitability but less technical efficiency. From environmental perspective, there are many issues of environmental risks (spontaneous drainage of farm effluents, inordinate application of pest and disease control, unwise utilisation of synthetic fertilisers, biodiversity loss and water conflict between the 03 land-used systems).

Through Rapid Appraisal of Agricultural Information System analysis, this research identifies a vast range of constraints and their interlinked causes that hinder sustainable development. The top three clusters of constraints are mismanagement practices at the farm-scale, economic issues and environmental pollution. The first interlinked cause starts with the poor policy development associated with the limited implication of the regulatory framework for ecological-based production. The second underlying cause that influences the developments are poorly performed transferred works of advisory service providers. None of the providers achieved sustainable effectiveness. The third blocking mechanism is related to the objectives and characteristics of farmers. Most farmers enjoy their own needs of profit from farming and sell surplus products rather than feeling responsible for long-term maintenance. Whilst the conservative authorities expect both conservation and development, but it is not always possible for them to do so.

Several implications are arising to reflect on what needs to be put in place. These include ways of the policy-making process and stakeholder engagement as well as fostering of local knowledge and capacities and conservative practices in the response to agricultural development and pollution mitigation. The changes require help to regulate agriculture toward the preservation of local ecosystems.

**Keywords:** Agricultural development, agroecology, Red River Delta, Vietnam