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Shifting from Crops to Livestock: Smallholders' Livelihood Adaptation Dynamics in Nueva Ecija, Philippines

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Abstract

Sustaining agricultural livelihoods is increasingly challenging for millions of smallholder farmers across developing nations. In the Philippines, farmers are caught between pressures of changes in both social and climate systems. Despite many livelihood development programs, income and food insecurities are prevailing mostly in rural households. Recurring crop failures has hampered the cash crop-oriented smallholders' farming economy. Shifting to livestock-based livelihoods emerged as a buffer activity to recover from production and income shocks due to more frequent typhoons, flooding, and drought. Understanding how farmers take livestock, as transformative opportunity to respond to these changes is important to determine its potential for more adaptive and sustainable smallholder livelihoods. This study explored livelihood trajectories in the context of smallholder households in Nueva Ecija province, publicly known as the rice granary and the national impact zone for water buffalo development programme in the country. The analyses were based on mixed methods i) 30 key informant interviews, ii) 310 farming household survey, and iii) direct observations. Data collection was undertaken from January to October 2016. Findings revealed that farmers' livelihood patterns evolved from the interplay of inter-related causal drivers. Land fragmentation, rapid urbanisation, and extreme climatic events reinforced the decline in farmers' livelihood resources pool. Whereas, the dynamics of change and response depended on the relationships between farm resources, knowledge, and social networks. Recurrent crop failures seriously caused income and market shocks, making local farmers highly risk averse. As a result, shift from rice cultivation to water buffalo dairying was increasingly adopted, that from year 2010, milk became the major contributor to total household income. Coupled with the governmental-led water buffalo development program, such transformative response has balanced farmers dwindling resources, mostly in the form of stable cash incomes, more efficient family labour utilisation, and improved overall household welfare. Therefore, water buffalo dairying can be a viable adaptation option and potential lever to achieve sustainable smallholders' livelihood. Finally, the study proposed a set of key issues for policy and programme consideration.

Keywords: Climate change, livelihood transition, mixed crop-livestock, smallholder households, sustainable livelihoods, water buffalo

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