Organic agriculture as a resilience strategy

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Abstract

In the upland Philippines, high-yielding varieties of rice and chemically intensive agriculture have been in use for several decades. These technologies have boosted yields in highly productive lowland systems, but many upland farmers are concerned that they are not suited to a rapidly changing climate, and are too expensive for subsistence farmers. In response to these concerns, some non-governmental organizations in the Philippine uplands have been promoting organic rice systems. These systems incorporate fish and duck farming, which is not possible in chemically intensive rice paddies. Organic rice systems are very popular with farmers who use them consistently, but not many farmers adopt organic agriculture and stick with it. Why not? We used a variety of participatory research methods, including focus groups and participatory model-building, to find out.

As we discovered, there are several feedback loops keeping the current system of high-yielding, chemically intensive rice agriculture in place. Although we found evidence that organic rice systems are more resilient to climatic and economic fluctuations, many farmers don’t have access to the knowledge required to develop these systems, or the nutrient inputs required to sustain their yields. This is partly because, although the Philippine Department of Agriculture is now promoting organic methods at a national scale, municipal governments have yet to take up the organic cause. Most regional agricultural outreach programs consist of handing out chemical fertilizers and spraying schedules for pesticides and herbicides. Moreover, many farmers in the upland are formerly landless agricultural laborers who receive land through agrarian reform programs. In order to start farming, they must depend on credit to purchase inputs, equipment, and seeds. Typically, creditors dictate the terms of production, including high levels of chemical inputs, in order to recoup their investment in one agricultural season.

The result of these systemic factors is low organic adoption rates, although there is demand for these technologies among farmers, and although the Philippine government is ostensibly promoting organic agriculture. This case study highlights the multi-scalar resistance to building a more resilient system at a household level. It leaves us with the following question: while focusing on a particular scale at which to target interventions (farm-level in this case), how do we deal with threats to the intervention that arise at higher or lower scales? When conducting participatory research, how do we target this research at a scale that allows us to include both influential decision-makers and vulnerable/marginalized populations?

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