II. ANNEXES: WORKSHOP PRESENTATION EXTENDED ABSTRACTS

Most of the PowerPoint presentations are available online at the address below: http://www.gret.org/2014/12/la-transition-agroecologique-contre-la-pauvrete-et-la-faim-au-cambodge-2/?lang=en

Challenges of the Agroecology Transition in Southeast Asia

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Keywords: land use transitions, commoditization of agriculture, livelihood vulnerability, agroecology, Southeast Asia.

Extended abstract

In recent decades, agrarian landscapes and livelihoods underwent dramatic changes in Southeast Asia. Farming households had to adapt to the mounting influence of global drivers of change in an increasingly connected world (e.g. market integration, economic policies, environmental regulations, climate change). As a result, agrarian societies - with agriculture as main occupation, as most important economic activity and as dominant ideology of rural development – gradually shifted to societies increasingly based on industrial production and services. These rapid and profound societal and environmental transformations have been influenced by megatrends such as the commoditization of agriculture, increasing divide between different forms of agriculture e.g. agribusinesses versus smallholders, and diversification of livelihoods. These trends are driven by a combination of factors such as demographic changes, market forces, government policies that impact differently local land uses depending on the stage they have reach in the shift from subsistence agriculture to commercial farming. The range of agricultural productions has greatly expanded, including intensive annual crops, livestock and tree plantations. For example, hybrid maize cultivars have replaced traditional varieties, leading to a sharp yield increase and rapid expansion of the cultivated areas. Equally dramatic was an accelerated shift toward smallholder tree plantations. This market-driven phenomenon was facilitated by strong productivity increases in annual crops, enabling large areas to be released from food production to more profitable and environmentally sustainable tree-based systems

Environmental issues are considered as one of the major setbacks of the Southeast Asian agricultural development model based on the combination of territorial expansion and

production intensification. They play a central role in land-use transitions and livelihood changes. On the one hand, land degradation processes caused by deforestation have become major driving forces of economic diversification and household differentiation. On the other hand, land degradation issues are taken up by the states in their discourses to justify poverty alleviation policies (e.g. eradication of shifting cultivation) that have critical impacts on land-uses and, in turn, on land degradation processes and extent.

Today, there is a large consensus about the necessity to buffer the negative consequences of the agrarian transition and to insure the sustainability of smallholder-based agriculture. To address problems of land degradation, in 2005, the Government of Laos issued a decree that generalizes the use of conservation agriculture across the country. In Indonesia, complex agroforests that retain approximately 50% of the biodiversity of the dense natural forests and connect forest patches to each other to create conservation corridors are under threat due to rapid expansion of oil palm plantations. Different payment for environmental schemes have been designed and tested with limited success to prevent this land use conversion. In Southeast Asia, like all around the world, the international scientific community is on the route of a "Doubly-Green Revolution", i.e. agriculture both productive and environmentally friendly. That is shifting from controlling nature to a connivance with ecosystems through agroecology. The idea that a second Green Revolution cannot result, like the first, from a simple transfer of technology, has made its way in the scientific community. Beyond a better understanding of the natural and human environments, or the design of new technologies, researchers are requested to define new development pathways, new modes of governance towards an agroecology transition.

Beyond sustained efforts to increase the system resilience or its ability to adapt to unavoidable changes (e.g. by maintaining the diversity of farming systems and practices), major transitions can be triggered by innovations that arrive at the right time, when the conditions for success are met. That is, they coincide with a window of opportunity sometimes limited in space and in time. Steering the transition towards desirable futures then consists in assessing whether the context is favorable to the adoption-diffusion of the innovation and to create the conditions for the change to happen.

Regularities can be identified in the complex transition processes in the form of trajectories that repeat themselves in space with more or less time-lag. For example, phenomena that have been described previously in Thailand, in Indonesia or in other parts of the world affected by road opening in forested uplands, land privatization by agribusiness investors in a context of fuzzy land tenure, can be identified in today's contemporary Laos and Cambodia. Lessons can then be drawn from the past experiences of neighboring countries to adapt intervention mechanisms (e.g. environmental regulations, payments for environmental service, eco-certification) to the particular context of each area, in relation with its stage in the socio-ecological transformation pathway. Indeed, locations (villages, districts) that evolve along the same pathways but at a different pace or with a time-lag can learn from each other; e.g. avoid repeating the same mistakes again. This is expected to facilitate decision making in times of uncertainty if the relevant institutional mechanisms are in place to support the exchanges across scales and sectors.

Inflexions or bifurcations in land use trajectories are systematically linked with some kind of negotiation among stakeholders, be it implementation of a new policy or granting a concession. The quality of the negotiation then determines to a large extent the type of trajectory that will unfold and who will be the winners or losers of the negotiated changes. In turn, the quality of the negotiation is determined to a large extent by who takes part, the level and quality of information held by each stakeholder and the power relations that may allow

some stakeholder groups to impose their views to others. Improving the quality of the negotiation can certainly help influencing pathways of changes. For example, many experiences across Southeast Asia have shown that the adoption of cropping systems with cover crops is only possible as part of a concerted management of forage resources involving the whole village community. By facilitating common understanding of problems related to crop-livestock interactions and providing visualization and simulation supports, researchers can engage local communities in negotiating alternative scenarios that are then explored collectively. Through active engagement of local actors in a collective learning process, local dynamics of change then appear as internally negotiated forms of the technical or organizational innovations that are proposed by outsiders (e.g. extension agents, researchers, private companies).

In conclusion, the institutional context is favorable to a transition towards agroecology but the required concerted management of natural resources and territories is largely constrained by the lack of relevant methods or more exactly by the little use of the existing methods by the transformative agents (i.e. farming communities, development workers, policy makers) in their daily practices of negotiation. A regional learning alliance on agroecology is called upon to support local communities and other stakeholder groups in negotiating their own pathways towards agroecology.

Proceedings of the National Workshop on Sharing Experiences "Towards an Agroecology Transition" 30-31 October 2014, Siem Reap

Supported by:
Conseil Général des Hauts de Seine

Summary