## Analysing

## biodiversity - society interactions

extension services and the Ubon Rajathanee University in Thailand) are working on the community management of agrobiodiversity of sorghum in Mali and flooded rice in Thailand, to discover how interactions between different stakeholders shape agrobiodiversity dynamics. Economic analysis, spatial analysis, companion modelling and role playing are all used, in an approach designed to help stakeholders cope with change.

The purpose of the research is to identify the advantages and shortcomings of seed exchange systems (formal and informal, country- and province-level) for providing farmers with the varieties they need and for maintaining the genetic diversity of the cereals. Analysis of farmers' decision making when they choose seed is the main gateway to modelling stakeholder behaviour in the production and exchange of cereal seed. CIRAD's contribution

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The preliminary results show that quality seed supply depends on the farm being connected to various geographical networks (proximity, accessibility) and social and economic networks (markets). Villagelevel agrobiodiversity management, through complex, intertwining exchange networks, favours conservation, renewal and distribution of varieties adapted to the needs of local populations. The main prospects offered by participatory modelling are improvements to existing seed systems taking better account of farmers' real situations, and suggestions for new rules for collective management of cereals biodiversity that will facilitate communication and coordination among stakeholders.

OK 531720 Community management of agrobiodiversity

Maintaining diversity in human activities is a recognised precondition for conserving a high degree of diversity in the biosphere. Because social and ecological systems must be able to coexist, it is worth considering the practices and innovations of local users, whether individual, collective or institutional, and their consequences for the dynamics of biodiversity, society and the economy.

Biodiversity conservation policies are often confronted with local stakeholders' territorial and identityrelated strategies. Little is known about these mechanisms and their implications for ecological and social dynamics. The question of how effective they are in management terms is now a central question for research. Rather than simply assessing biodiversity, we need to understand and manage shared access to these resources. It is important to take into account the new conditions created by the various institutional mechanisms that emerge with decentralisation and the growing marketisation of biodiversity. The situation is further complicated by the emergence of new players in negotiations (NGOs, farmers' organisations and other local associations) combined with pressure from donors, investors and international organisations. CIRAD and its partners, (Institut d'Economie Rurale in Mali, NGOs,

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