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Accompanying rural actors in the agroecological transition

A role-playing game approach

Pathways to agroecological transition are winding, context-specific, and seldom consensual among actors. Beyond the adoption of individual agroecological practices, it is essential to find trade-offs between actors with divergent interests so as to build more sustainable landscapes. In this respect, accompanying approaches—including participatory ecosystem service (ES) assessment—facilitate constructive exchange between actors and help transcend mere confrontation of viewpoints⁽¹⁾. In our research in different regions worldwide, we use Companion Modeling (ComMod) approaches that provide a forum for actors to discuss options and uncertainties related to the use, maintenance and trade-offs between ES (e.g. food production, biodiversity preservation, carbon storage; pollinating insects, etc.) in agroforestry landscapes. These approaches involve three key steps:

- **Which ES?** Actors define the situation to be considered and prioritize the ES attributed to different practices and land uses (e.g. slash-and-burn, cash crops, agroforestry systems, conservation), during individual interviews^(2,4) or collective workshops^(3,4).

- **What impacts do practices have on ES?** Indicators are co-built and used to develop role playing games that will enable actors to assess and compare (over a few years) the constraints and impacts of different practices at the farm, village or landscape scale^(3,4).

- **What trade-offs between ES?** The pathways identified via the games are simulated over 10- or 20-year periods using a computer model to assess the long-term impacts of trade-offs between different ES in relation to wellbeing^(3,4). Actors' step-by-step participation in trade-off negotiations heightens their understanding of how their practices shape the simulated landscape dynamics.

Through these participatory approaches and the assessment of scenarios for transforming individual and collective practices, actors are involved in knowledge sharing and enhance their insight into the linkages between resource use and ES. In this way, they contribute, along with researchers, to defining initiatives required to establish sustainable and equitable agroecological socioecosystems.

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▲ Role-playing game on forest restoration in Amazonia, Brazil. © K. Naudin/Refloramaz project, 2018