CoLEarning with Models to Assess diversificaTIon Services
Assessing the contribution of crop diversification to ecoABSYSs services : co-learning with models to integrate farmers' and researchers' knowledge

The overall objective is to co-design innovative farming systems, including legumes and crop-livestock integration, to enhance resilience and adaptation to climate change for smallholder farmers of the semi-arid zone of West Africa (Burkina Faso, Mali, Senegal).

We hypothesize that diversified farming systems can secure crop production and enhance provisioning and regulating ecosystem services (nutrient cycling, climate regulation). Agriculture-based solutions (including legumes and tighter crop-livestock integration) can promote agrobiodiversity and enhance system component interactions. To explore the effect of management decisions on crop allocation, species/varieties choices, fertilization, livestock husbandry and manure management, we will do a co-learning process, by participatory, bottom-up approaches with local farmers.

 More precisely, it will consist of coupling a crop modeling method with a participatory method Crop models to share knowledge and to bridge the gap between different scales, disciplines, and actors to better co-designing farming systems.

Responsable :

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