Procedures for Participatory Research with Multipurpose Forages in Central American Hillsides

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Abstract

Many regions in developing countries are characterised by deteriorating biophysical conditions such as erosion, loss of soil fertility and deforestation, resulting in diminishing resources and decreasing yields. Multipurpose forage based technologies can play an important role in improving the environmental and socio-economic sustainability of smallholder production systems, for instance by improving soil fertility through nitrogen fixation, increasing animal production through improved feed, and controlling weeds. Species that are widely adapted, productive and palatable have been identified, but farmer adoption has been low. One explanation for low adoption rates is that too much emphasis has been placed on supply-driven research with little participation of farmers. With the involvement of national research institutes and non-governmental organisations as well as the University of Hohenheim, CIAT implemented a BMZ/GTZ supported project on participatory research on selection and strategic use of multipurpose forage germplasm in Central American hillsides. Within the framework of this project, research procedures were developed for identifying, testing and evaluating multipurpose forage based technologies with farmers. In the department of Yoro, central Honduras, farmers in 12 communities conducted experiments with different types of multipurpose forages like grasses, leguminous cover crops and shrubs in three different agro-ecological zones during a period of 18 months. The experimenting farmers were differentiated according to their farming systems and resource endowment such as cattle ownership. The research procedure consisted of farming system analysis, problem identification and prioritisation, formulation of research objectives, implementation and evaluation of experiments, which were carried out using participatory methods and based on farmers’ demand. Farmers’ decision-making, learning, and experimenting were central to the research. Methodological insight into the applicability of participatory methods for research with multipurpose forage based technologies was obtained. Furthermore, a range of suitable forages for small farmers, especially for those living at high altitudes, were identified. Results indicate that different interest groups require different approaches in order to enhance adoption of multipurpose forage based technologies.

Keywords: Central America, farmer participatory research, hillsides, multipurpose forages

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