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# Participatory Research That Builds on Local Innovation in Beekeeping to Escape Poverty

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**Abstract**

In Tigray Region in northern Ethiopia, many smallholders earn income by selling honey and bee colonies, which are highly demanded and expensive. This contributes importantly to household food security. To improve their beekeeping and their incomes, some farmers have been creative in developing own innovations, related primarily to beehive modification and queenbee rearing but also to honey separation and bee-forage selection.

As part of a multi-stakeholder research and development programme called PROFIEET (Promoting Farmer Innovation and Experimentation in Ethiopia), the Northern Typical Highlands Zone platform (Tigray Bureau of Agriculture, Tigray Agricultural Research Institute, Institute for Sustainable Development, Mekelle University, Adigrat Catholic Secretariat, Relief Society of Tigray, Bureaux of Water Resources and of Education) encourages identification and documentation of innovations developed by farmers. Numerous beekeeping-related innovations by men and women farmers were found. For example, they modify beehives by combining traits of the traditional and modern: making own versions of the top-bar beehive using wood, mud and dung. These are far cheaper than the purchased "modern" hives, insulate better against heat and cold, and bring higher yields.

The PROFIEET platform in Tigray is bringing beekeepers together to show and explain their innovations to each other and researchers and extension experts, and to develop ideas for joint experimentation in participatory innovation development (PID). At an agricultural exhibition held in March 2006 in Tigray's capital Mekelle, the identified beekeeping and other local innovations were presented alongside technologies from formal researchers.

This paper analyses the differentiated responses of farmers, researchers and experts to the innovations coming from farmers and from formal researchers and their respective concepts of intellectual property rights. The significance of such exchange fora and of the PID activities based on smallholders' innovations is analysed with a view to PROFIEET's efforts to institutionalise farmer-led PID within research, extension and education in Tigray as a means to reduce poverty, increase food security and encourage sustainable management of natural resources.

**Keywords:** dryland farming systems, endogenous livestock development, Ethiopia, articipatory research

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