Impact of agricultural research: a study of on-farm development effects of agricultural research in Southern Highlands and Eastern Zones of Tanzania

Abstract
This study focuses on the role of agricultural research in development. In particular, the study draws on the experiences based on agricultural research conducted during the period 1980-1990 in the Southern Highlands and Eastern Zones of Tanzania. The two zones are part of a total of seven agricultural research zones of the National Agricultural Research System (NARS), managed by the Department of Research and Development in the Ministry of Agriculture and Food Security. The findings reported in this study are based on a review of earlier impact studies and fieldwork focusing on the impact of rice research programmes in the two zones. The latter, in particular, paid attention to the adoption of selected rice research-based innovations, impact of rice research on food security, and the economic costs and benefits of rice research. The review of the impact studies shows that, unlike at the international level where, since the 1990s, attention has largely focused on the poverty reducing effects of agricultural research, no similar attention has been given to the role of agricultural research in poverty reduction in Tanzania. This fits in within a broad context in which agricultural research and extension have hardly been sufficiently able to address the needs of the poor farmers. Moreover, the limited use of selected rice research-based innovations is further evidence of the inability of agricultural research to generate innovations that cater for the different categories of farmers including the poor. This study also shows a weak impact of rice research on food security. Although this could be attributed to the limited impact of rice research on crop productivity, the multiple livelihoods that farmers seek to achieve through rice production imply that food security should be understood in the context of livelihood strategies pursued by the farmer. In reference to the economic impact of rice research, besides the rates of return, which vary widely depending on assumptions informing the analysis, the study also found great fluctuation of the benefits of research reflecting the unstable nature of rice farming carried out under rainfed conditions and limited inputs.