

New approaches to supporting the agricultural biodiversity important for sustainable rural livelihoods

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Abstract

Today, less than 3% of the 250,000 plant varieties available to agriculture are in use. Sources of (agricultural) biodiversity are under threat and disappearing in many regions. Increasing industrialisation of agriculture and top-down agricultural research have contributed to this dependence on a relatively few plant varieties. This article argues that new approaches to agricultural development research are needed to conserve agricultural diversity, improve crops, and produce food of quality for all. Such an approach should enable small farmers on marginal lands to participate as equal partners alongside agricultural scientists, fairly sharing their know-how, expertise and seeds. Three case studies illustrate how farmers and plant breeders are working together in a diversity of agro-ecological, socio-economic and political contexts to put these new approaches into practice. New forms of collaboration are producing an increase in diversity and a number of promising improved varieties in terms of yields, agronomic traits and taste. These varieties are showing better adaptation to the local environmental conditions without requiring extra external inputs. Long-term success requires that these efforts be backed up by supportive policies, by actions to ensure that policies are implemented, and where necessary by related legislation.