IMPLICATIONS OF SEED POLICIES FOR ON-FARM AGRO-BIODIVERSITY AND INFORMAL SEED SYSTEMS IN ETHIOPIA AND UGANDA

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Abstract. Across East Africa national seed policies and commercial seed enterprises have focused their efforts on increasing farmers’ access to modern (improved) seed varieties. These new varieties are developed and delivered to farmers via the formal seed system, comprised of government and private sector seed breeders, processors, and vendors. However, today the formal seed system only provides a small share (<20%) of smallholders’ seed in the region. Most farmers instead source seed from informal seed systems, which include own-saved seed, exchanges with neighbours, and local seed markets. At the local level, informal seed systems are preferred by farmers because of proximity (i.e., lower costs of access) and local varietal preferences (i.e., crop variety tastes and adaptation to local environmental conditions). At the national and regional levels, the conservation and use of local crop varieties by dispersed rural farm communities over generations has also provided a wealth of crop genetic diversity in terms of agronomic traits (e.g., pest resistance, disease resistance, drought tolerance) increasingly recognized as critical for farmer productivity and climate change adaptation.

We systematically coded 117 provisions in 22 national seed policy frameworks in Ethiopia (n=12) and Uganda (n=10). We assessed each provision’s intended impact on the availability and accessibility of three different seed types: (i) improved seed (i.e., introduced genetic diversity); (ii) quality-controlled seed (i.e., varietally pure certified seed, comprised of both improved and local seed), and (iii) genetically diverse local seed (i.e., indigenous genetic diversity) in both the formal and informal seed systems in each country. We then further coded the degree to which seed policies contribute to or undermine other stated policy goals (e.g., genetic diversity conservation and use), as well as qualitative aspects of food crop genetic diversity (e.g., taste, color, and cooking characteristics) which are important traits for farmers.

Findings suggest the overwhelming majority of policy provisions in both Ethiopia and Uganda target the expansion and fortification of formal seed systems providing improved and quality-certified seed. Both countries’ policies contain relatively few (and often negative) policy provisions targeting informal seed systems – in spite of these systems being the current source of most rural seed. Ethiopia and Uganda’s seed policies do differ in important ways, with Ethiopian policies more heavily emphasizing incentives for conservation, along with rules protecting smallholder farmers’ legal rights to ownership and compensation for on-farm genetic diversity that may later prove to be of commercial value. Neither country’s policies substantively emphasize non-production-related traits such as taste or cooking characteristics – with potentially important implications for cultural and gender values.

Ultimately, as a largely unintended consequence of recent shifts to modern farming practices, much of East Africa’s crop genetic diversity is being lost. The results of this study highlight the role of public policies in shaping how diversity is utilized – or not – to the benefit of smallholder farm communities.

Key Words: Seed Policy, Sub-Saharan Africa, Ethiopia, Uganda, Seed Systems, Informal Seed Systems, Genetic Diversity, Quality Seed