

## Tropentag, September 20-22, 2023, hybrid conference

"Competing pathways for equitable food systems transformation: Trade-offs and synergies"

## Farmer's seed diversity and seed conservation practices in Nakuru Kenya

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## Abstract

Farm-saved seed is existential for agriculture and nutrition in Kenya. For many crops families still depend almost entirely on breeding and seed conservation. A survey with 244 farmers, predominantly female (68%) was used as a baseline to understand farmers practices. Farms are very small (0,6 ha median) with only 0,17 ha per household member. Farmers are cultivating on average 17 crops, and in the order of importance these are maize, Irish potatoes, kales, spinach, wairimu bean, spring onions, kifamu bean, garden peas, black nightshade, kahurua bean, pumpkin, sweet potatoes, witemania bean, Amaranth, coriander, yellow bean, broad bean, spider weed, tomato and Comfrey. The land shortage and climate change risks make farmers focus on many different bean varieties (16) and various vegetables (13) besides tuber crops (5) to secure their food security. While the number of crop species cultivated per farm was high, intra-species diversity was rather limited. Most farmers only grow one variety per crop, and rarely two. Overall, the survey identified 3-4 varieties for most species, For 2 out of 40 species researched, a high number of 8 varieties were mentioned during the interviews. This highlights that's biodiversity loss is a major threat for Kenya. To assist in this fight against biodiversity loss, Seed Savers Network Kenya together with Agrecol introduced a commons-based process of describing and documenting local varieties. This approach is intended to improve farmers' seed supply and provide some protection against private appropriation. The results of this work will be forthcoming in the next years. For their seed needs, farmers still depend largely on their own production or neighbours in their community. So far, seed banks only play a minor role. The self-sufficiency of farmers for seed is very good and for most beans it reaches up to 100 %. But even for vegetables with temperate origin that are more difficult to maintain for seed, some 30–40 % of farmer manage to keep their own seeds.

**Keywords:** Agrobiodiversity, farmers' varieties, food security, open source seeds, traditional seed

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