
Crop diversity patterns as a mirror of communities' social organization: an illustration from the Tharaka people of Mount-Kenya region

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Abstract

The efficient conservation of crop genetic resources requires understanding crop populations' evolution processes *in-situ*, and especially the influence of farmers' management. Indeed, farmers' practices of seed exchanges and selection are involved in crop evolution and shape their diversity in subsistence farming systems. Farmers' practices are usually studied at the individual level while in most rural societies the social organization shapes the seed and information exchanges networks. The influence of communities' social organization on crop diversity patterns has thus been overlooked. This study investigates the relation between crop diversity patterns and the social organization of Tharaka farmers in Kenya, linking quantitative ecology approaches and ethnographic information. The assemblages of crop species and sorghum landraces, as well as the specific richness of cropping systems were analyzed regarding neighborhood-groups, clans and age-sets, which are three major Tharaka social institutions. The distribution of crop species and sorghum landraces was not random as crop richness and composition differed significantly between adjacent neighborhood-groups. The results for species were consistent with those obtained for sorghum landraces, confirming the relationship between Tharaka social organization and crop diversity. These results are discussed in relation with the influence of social organization on seed networks and selection processes in order to address the implications for the conservation of crop genetic resources.

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