Abstract

Farmer Managed Natural Regeneration (FMNR) is an important conservation strategy for restoring soil fertility and vegetation cover in Kenya's arid and semi-arid regions, where land degradation continues to threaten livelihoods. However, little is known about how gender influences participation, resource access, and decision-making in FMNR. This study utilised the FMNR Theory of Change, which views empowerment as a path from participation → access → agency → leadership, to look at gender roles and engagement in FMNR across four wards: Mara (Narok County), Osiligi (Kajiado County), Kalawa, and Kitise (Makueni County). Using a cross-sectional mixed-methods approach, 1,628 respondents were selected from FMNR beneficiaries. Structured questionnaires were used to gather quantitative data, which were then analysed using chi-square tests ($\alpha = 0.05$) and descriptive statistics. Thematic analysis was applied to qualitative data from focus groups and key informant interviews to enhance understanding and interpretation of gender roles and decision-making in FMNR. The results indicated that engagement in the FMNR initiative was predominantly by lead farmers (82.2%), with both men and women actively engaged across the study areas. A statistically significant correlation between gender and role distribution was identified exclusively in Mara Ward ($\chi^2 = 25.34$, $p < .001$), whereas other wards exhibited no significant disparities. There were, nevertheless, gender differences in access: women had comparatively better access to firewood and pasture (47–48%), whereas men dominated access to timber (56.7%) and building poles (54.4%). Training access was considerably different in Kalawa ($p = .003$) and Mara ($p = .043$), indicating differential exposure to technical capacity building. Qualitative data demonstrated that women's ascent to leadership was hampered by high workloads, cultural norms, and restricted mobility. The study concludes that structural inequality is sustained by participation that lacks agency. It suggests that in order to facilitate women's shift

from participation to decision-making, FMNR implementers and county governments ought to incorporate gender-responsive training, flexible scheduling, and equitable resource governance.