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Community-led interventions buffer effects impacts of extreme drought drylands: A case of Turkana county, Kenya

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Abstract

Kenyan drylands, largely inhabited by (agro-)pastoralists born out of the need for livelihood diversification, are estimated to occupy 80% of the total land mass. These areas face a different challenge - long history of political and economic marginalisation, frequent, recurrent droughts, poor access to markets and other services, among others. These inequalities are exacerbated by the impacts of climate change. The need for community driven food system transformation, not only responsive to the local needs but also adapted to the local context, is thus a timely endeavour.

This study applied a cluster randomised control study with 10 intervention community units (CUs), and 7 control units in Turkana county. A community led-initiative identified solutions to local problems identified at baseline in August 2020, amidst COVID-19 (n=400). Among the solutions, kitchen gardening was identified and implemented by all communities. Two CUs implemented poultry rearing and four CUs village savings and loaning associations (table banking), in addition to gardening. Approximately nine months after end of supervised implementation, in August 2022, at the height of the most severe and longest witnessed drought in the history of Kenya, a mixed-method impact evaluation study was conducted.

At baseline and endline dietary intakes and dietary diversity of women and children is very low and shows even a decrease in the mean dietary diversity scores of women and children from baseline to endline from 2.42 ± 0.97 to 2.06 ± 1.19 for children and 2.51 ± 0.98 to 2.16 ± 1.16 for women, respectively. Difference-in-difference models reveal however that the intervention CUs were significantly less affected by the impact of drought, with a 0.41 and 0.36 statistically significant higher mean dietary diversity score in children and women, respectively, compared to the control. Food group analysis reveal increased consumption of pulses, vegetables and fruits in the CUs compared to control. Focus group discussions associated these changes to adoption of new practices in production, preparation and consumption of food and changes in the financial cash flows of the households.

Kitchen gardens impacted positively on dietary diversity and buffered against impacts of drought significantly although it was a new activity for most participants.

Keywords: Community led-participatory initiative, dietary diversity, drylands, food system