

FOOD AND BUSINESS APPLIED RESEARCH FUND (ARF)

Rainwater harvesting from roads for indigenous pasture production and improved rural livelihoods in semi-arid Kitui, Kenya

Consortium members

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Project description

This project is aimed at determining the potential of rainwater harvesting using roads as a catchment, for improved indigenous pasture production and rehabilitation of degraded semi-arid environment in Kenya. We envisage that increased pasture production will generate additional income and improve rural livelihoods of pastoral communities through sale of surplus milk, hay and grass seeds. Increased milk production as a result of increased forage will contribute to improved human nutrition status.

Impact activities and preliminary results

Kick-off meetings – several consultation meetings between the consortium members and stakeholders (Kitui County Government and farmers).

Trainings – several farmers, research assistants' trainings, local county government officials on indigenous pasture establishment and rainwater harvesting from roads.

Pasture establishment demonstration plots – One site at SEKU and five on-farm demonstration sites established across Kitui County (Kitui Central, Rural and Mwingi West).

Opportunities and challenges

Climate variability and change especially in the arid and semi-arid environment poses the greatest challenge to rain fed indigenous pasture establishment. Additionally, indigenous pasture seeds are not available in the formal seed market, consequently there is unreliable supply and poor quality of seed.

The project integrates existing indigenous technical knowledge on the preferred indigenous grass species for large scale production, improved livestock production (milk and meat) and commercialization (sale of hay and mature grass seeds) for improved livelihoods. Indigenous pastures in individual farms will be a gateway to supplying enough forage for livestock in dryland environments and establish quality sale of pasture seeds. Moreover, it contributes to a more varied nutrition with milk-based diets and increase the level of household income. Reseeded areas will also improve and protect the environment e.g. controlling soil erosion and enhancing soils capacity to hold water and release it slowly, thus also recharging underground water reservoirs. Furthermore, established pastureland can also contribute significantly to climate change mitigation through carbon, C, sequestration.



Project consortium flowchart

