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# Addressing food security challenges in the Eastern Cape

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**B**ackstopping is the process where research technical experts are dedicated to support and ensure quality of the work made by project implementers in the field. Project monitoring and quality activities are used to check on progress, challenges and hindrances or success of project delivery. It is a useful tool in addressing food security as challenges encountered in, for example, the establishment of vegetable production projects.

In order to identify challenges encountered during the establishment of a vegetable production project for food security in the Eastern Cape early in 2021, the ARC was invited and funded by the United Nations Environment Programme (UNEP)-Eba to embark on a backstopping activity involving visits to the community and homestead gardens in four selected villages, namely Makgwaseng, Vuvu, Mahaneng and Elundini in the Mount Fletcher area.



Photo 1. Main sources of water such as rivers are far from community gardens.



Photo 2. Summer crops such as squash and maize growing well during the wet warm summer in the region.



Photo 3. Poor cropping practises such sowing of seeds directly into the field.



**Photo 4. Old, pest infested plants show there is not enough information on crop planting and harvest dates.**

During the backstopping process, the specific needs and status of vegetable production in the area were identified. Researchers used group discussions to interact with the community members who worked in the community gardens as well as in their own homestead gardens. Needs identified, including ecosystem-based aspects such as water-harvesting, mulching, composting, crop rotation and planting indigenous crops to build resilience for communities at a local level, were addressed. Personal hands-on assistance with a range of aspects of vegetable production, including site selection, land preparation, proposing a planting programme of different vegetables and production practices, were provided

As part of empowering community members, ARC pamphlets on pertinent subjects such as land preparation, water harvesting, vegetable cultivation, mulching, compost making, nursery practices, cultivating vegetables in bags, agro-processing and storage of products, were distributed. Remedial action was taken and recommendations for the summer and winter vegetable production systems recommended during these interactions.

The main findings from the vegetable backstopping activity in these four villages concerned the availability of water, crop production skills / information, infrastructure and lack of training. The water situation is a serious challenge for all communities

and rainwater-harvesting methods need to be implemented. To ensure efficient crop production, planting times should be reassessed; and alternative crops such as orange-fleshed sweet potatoes should be introduced, together with implementation of local seedling production and marketing of produce. The priorities for infrastructure are for fencing of vegetable gardens, water storage, distribution, and installation of irrigation pipes. Capacity building on crop production for community members is crucial and should include planting techniques, planting dates, disease management, mulching, composting, irrigation and water harvesting, amongst others. In general, the condition of the vegetable gardens and the skills of the communities in vegetable production were rather poor and deficient in many aspects. One of the ways to address food security is to continue with further interventions to improve the ecosystem-based adaptations and nutritional food security of the area. Together with the natural resources information (soils, climate and terrain) and the crop suitability mapping exercises under projected future conditions, there could be good prospects for viable vegetable production for both household use and marketing to the surrounding areas and towns.

The Agricultural Research Council (ARC) will recommend that the findings from this backstopping process be included into the Integrated Development Planning, specifically for the local Municipality and for the wider implementation in the District Municipality in general. The specific recommendations from the vegetable backstopping activity include further vegetable production training; a need for nursery production facilities and training; provision of transportable water containers; implementation of rooftop water harvesting; use of hand operated water pumps; use of living fencing for vegetable gardens; as well as introduction of sweet potato production and agro-processing of all food produce for new markets. The ARC can provide not only the knowledge but also the training to address these needs and will continue to render these services to communities in need.

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