

Background



Emali, located in a semi-arid zone southeast of Nairobi, heavily relies on rainfall for agriculture and pastoralism, which make up over 70% of household incomes in Makueni and Kajiado counties. Climate change has led to consecutive crop failures, livestock deaths, and reduced milk production, resulting in increased food insecurity and malnutrition. The Samli Dairy farmers' cooperative faces significant challenges due to reduced milk supply and inflation. Local authorities prioritize sustainable livestock rearing and innovative water harvesting to address these issues.

EDCA and ChildFund aim to enhance community resilience through climate-smart agricultural technologies. This approach targets women, who make up 75% of the agricultural workforce and bear household responsibilities, aiming to shift power dynamics and improve livelihoods. The project seeks to sustain livelihoods, improve incomes, and ensure food security amidst the worsening impacts of climate change.

Project Goal



Enhance the adaptive capacity and resilience of small holder farmers and community members affected by climate-related threats in the Emali community.

Project Objectives

Increase smallholder farmers' productivity and incomes through improved irrigation and climate-smart agriculture.

Increase smallholder farmers' milk production and income through improved climate-smart dairy production

Enhance financial literacy and inclusion for smallholder dairy and irrigation farmers for sustainable development.

Project Framework

Goal: Enhance Resilience and Adaptive capacity of small holder farmers and community members affected by impacts of climate Change in the Emali community.

Objective 1:

Increase smallholder farmers' productivity and incomes through climate smart agriculture

Objective 2: Increase smallholder farmers' milk production and income through improved climate smart dairy production

Objective 3:

Increase financial literacy and inclusion for small-holder dairy and irrigation farmers for sustainable development

Output 1.1: 100 small holders supported to practice irrigation and aquaculture

Output 2.1: 100 dairy farmers supported to increase milk production

Output 2.2:

Climate Smart field school established in Nembuya supporting 500 dairy farmers

Output 2.3:

Pasture demonstration plots established at Nembuya field school and 5 households supporting 500 dairy farmers

Output 2.4:

Pasture
production,
postharvest
handling and
banking
technologies
disseminated to
100 smallholder
dairy farmers

Output 3.1: 600 dairy and crop farmers equipped with financial literacy skills and advocacy

Project Progress



Establishment of the Nembuya Farmer Field School



Building capacity on dairy farming through fodder production and conservation in conjuction with SAMLI Dairy



Development of Irrigation infrastructure



Areas of Innovation



Use of drip irrigation system

Drip irrigation systems will be used, as they are cost effective, water efficient and less labour intensive. Farmers can convert unproductive land to arable irrigation schemes that can produce crops all year round.



Introduction of fish farming

To optimize water productivity per unit volume, the farm level reservoirs will double up as fishponds. Fish also produce minerals which will be beneficial as crop nutrients.



Climate Smart Field Schools

The proposed field school is intended to be an integrated and complete system that educates farmers on all elements of production. The farmers have an opportunity to witness good production systems practically parallel to their farms.



Information Management

The project seeks to link farmers to different information services, including early warning systems and climate weather information.



Solarisation of the water pumping system

This will greatly reduce cost and support environmental conservation efforts.

Sustainability Plan

Strengthening of community-based project management and governance: The project will strengthen community-based management and governance by enhancing the capacity of 2 institutions for sustainability. Savanna will be trained to manage rural water and irrigation systems, while Samli Dairy Cooperative will receive training to sustain dairy operations

Conservation and effective utilization of natural resources: To ensure water availability for irrigation along the Muoni River, the community and sand harvesting authority will collaborate on project implementation. They will control sand harvesting and protect catchments to prevent water source degradation and pollution.

Reduction of operating and maintenance costs: Project infrastructure will primarily be
powered by the integration and upgrading
of systems to solar power, ensuring lower
operation and maintenance costs.

Linkages: During the implementation, the project will be deliberate in linking the local community organizations to relevant government departments and service providers to ensure services, extension officers, and outreach services by government continue beyond the life of the project.







