



Eco-villages in Tanzania and positive lessons learnt on water

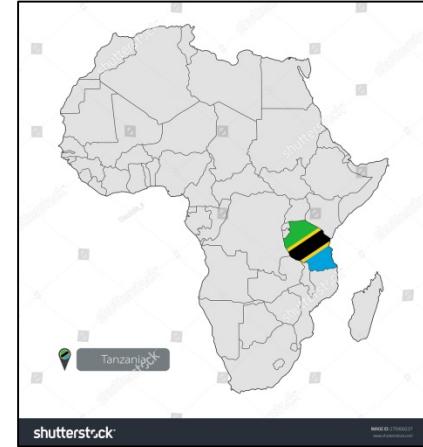
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Background

- Over the past 10 years Tanzania has implemented a GCCA programme using the eco-village approach
- Integrated approach to address climate change challenges and adapt to it in various aspects of rural life
- Targeting 5 different agro-ecological zones facing adverse impact of climate change
- Uses locally accepted technologies on water management, energy, livestock keeping, forest management and climate smart agriculture



1.0 Background cont....

Situation Analysis on access to water

- ❑ Only 57% of Tanzania's population of 57 million have access to clean/safe water; 79% in Urban areas and 37% in Rural areas.
- ❑ Access is poor due to inadequate sources, poor distribution network, long distances to water sources
- ❑ Climate Change challenges rural water supply due to more frequent droughts, declining water tables and encroachment of wetlands

2.0 Challenges facing water access

Challenges facing communities in access to water in GCCA projects

Eco village Project	Agro-ecological zone	Rainfall characteristics	Water resources challenge
Eco Act, IRDP	Semi-arid, Dodoma region	Unimodal, 400 to 500 mm	<input type="checkbox"/> Drying of seasonal rivers and shallow wells <input type="checkbox"/> Excessive drought, leading to crop failure
Eco Boma, OIKOS	Semi-arid, Arusha region	Bimodal, 250 to 500 mm	<input type="checkbox"/> Drying of seasonal rivers and shallow wells <input type="checkbox"/> Water with high concentration of fluoride
East Usambara, ONGAWA	Mountain area, Tanga region	Bimodal, 1000 to 2000 mm	<input type="checkbox"/> Inaccessibility to clean water due to terrain
CF Pemba, CFP	Coastal area, Pemba island	Bimodal, 750-1200 mm	<input type="checkbox"/> Intrusion by sea water in farmland <input type="checkbox"/> Absence of freshwater in small islets
Igunga, Heifer	Semi-arid, Tabora region	Unimodal, 500 - 750 mm	<input type="checkbox"/> Drying of seasonal rivers and shallow wells

3.0 Water resources mgt. Interventions

Rain water harvesting systems – experience from Pemba island

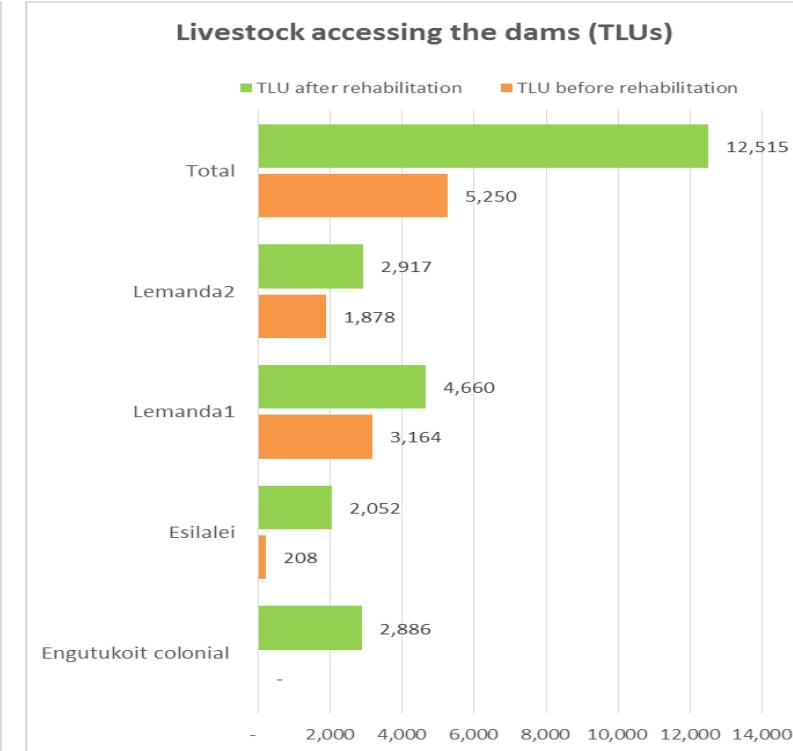
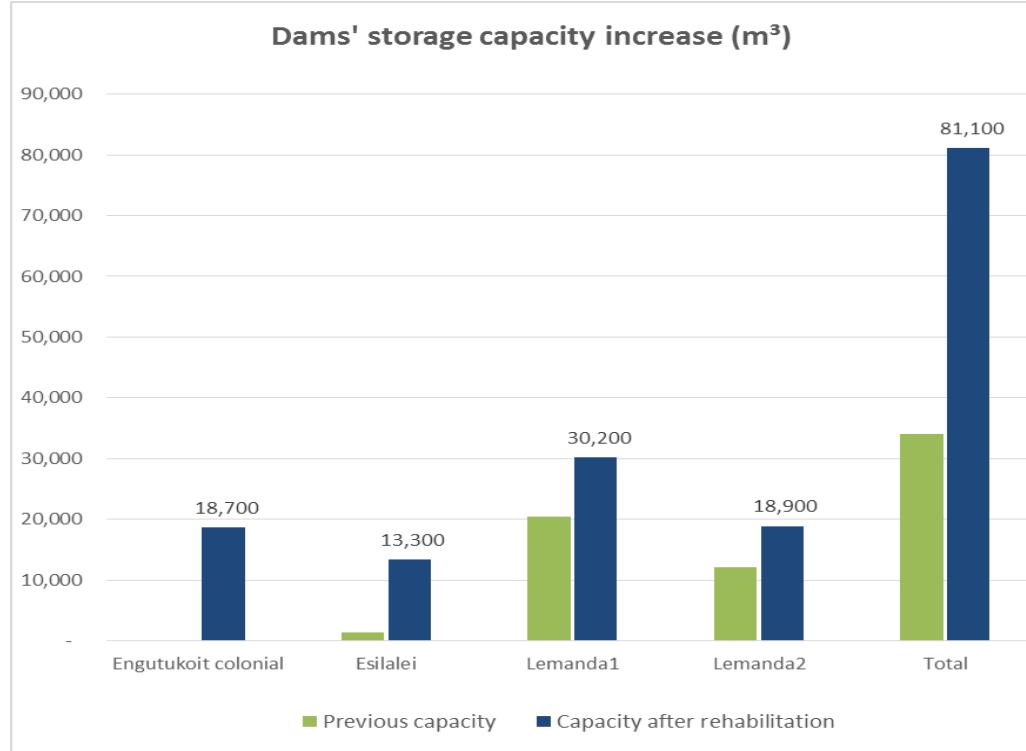
- In the small islet of Kokota, communities had no fresh water and had to fetch it by boat far away on the main island of Pemba.
 - ✓ Available water was saline with very limited use
 - ✓ Small desalination plant had been installed in the islet but didn't work
- Under the GCCA project, a rainwater harvesting system was installed on the roof of a school with a solar powered filtration system and collection tank
- Now close to 500 people benefit from access to water in Kokota





3.0 Water resources mgt. Interventions

Rehabilitation of earth dams for livestock – Experience from Arusha



- Demand for water for livestock had increased in the dry savannah woodlands where pastoralist communities live.
- The GCCA project rehabilitated four dams to increase their capacities from 34,000 m³ to 81,000m³
- This increased the number of livestock served from 5,250 to 12,515

3.0 Water resource management

Water supply for Household use – Experience from East Usambara Mts.



- In mountainous areas, despite presence of water, facilities for extraction is limited, with difficult access and causing destruction of watershed areas
- GCCA supported protection of 11 springs and development of 4 water supply systems with 4 water intakes and 42 collection points
- 68% of households in the project area now have access to improved water facilities serving 7,882 people

4.0 Sustainability of the interventions

Structures and Institutions for Rural water management

- Eco-village projects established/strengthened Community Water Supply Organizations (COWSOs) in their project sites.
 - ✓ COWSOs are established by law through Local Govt.
 - ✓ COWSOs supervise management of the water infrastructure
 - ✓ COWSOs are run from fees from village community members

Legal provisions for Rural Water services

- In 2019, a new agency was established to deal with rural water supply; Rural Water Supply and Sanitation Agency (RUWASA)
- Local Government Authorities are responsible for registration and backstopping COWSOs

5.0 Key messages

- Water supply is a challenge in most of rural Tanzania
 - for household consumption, livestock and irrigation
- Climate change has increased the challenge
 - reduced productivity of crops and livestock
- Installation costs of rural water infrastructure is expensive
 - local government plays a role in planning and mobilising budget and equipment with possible support from DPs
- Communities are capable of managing rural water infrastructure
 - COWSOs need to be established and capable institutions to ensure sustainability of water infrastructure

□ For more information, visit the following websites;

<http://www.igungaecovillage.com/>

<https://chololoecovillage.wordpress.com/>

<http://www.ecoboma.org/>

<https://muhezaclimatechange.wordpress.com/>

<http://www.forestspemba.org/en>



Thank you!