

TANZANIA INTEGRATED APPROACHES FOR CLIMATE CHANGE ADAPTATION IN THE EAST USAMBARA MOUNTAINS

13 CLIMATE ACTION



Supporting Communities in the East Usambara Mountains to Adapt to Climate Change

SEPTEMBER 2019

The *Integrated Approaches for Climate Change Adaptation in the East Usambara Mountains* is one of five projects, which falls under the European Union (EU) funded Global Climate Change Alliance (GCCA). The project encompasses the eco-village approach, and aims to increase and diversify incomes, strengthen resilience and reduce vulnerability to climate change. The eight targeted communities are located near high biodiversity forests in the East Usambara Mountains and depend on the ecosystem for their livelihoods, which are increasingly becoming threatened due to climate change.

The project contributed to Tanzania's poverty reduction strategy and improving the livelihoods of communities. The project activities are also aligned with Sustainable Development Goal 13 (SDG 13) – CLIMATE ACTION.

KEY INFORMATION

Sector:	Climate Change
Lead Partner:	ONGAWA 'Engineering for Human Development'
Other Partners:	TFCG 'Tanzania Forest Conservation Group'; Muheza District Council
Budget:	€ 1,364,449
Duration:	2015 – 2019

BACKGROUND

Climate models for the project area predicted an increase in annual average temperatures. Rainfall was expected to be less reliable with a longer and hotter dry season from June to October. In 2017, parts of Tanzania experienced serious drought and in 2018 severe flooding took place. These unpredictable weather patterns continued to test the eight targeted communities in 2019: Kwemsoso, Mgambo, Misalai, Kazita and Shambangeda, in Misalai ward, and Kizerui, Zirai and Kwelumbizi in Zirai ward. The villages, which surround the Nilo Nature Reserve, are located in a high biodiversity area, and rely on the Zigi River, which experiences water flow that has varied significantly during the last few decades, with increasing flow peaks and decreasing minimum flows.

These trends, coupled with an increased downstream demand for water, higher pollution due to unsustainable agricultural practices and a lack



of income generating alternatives hindering forest conservation, pose a threat for future generations. However, the project has made significant progress engaging river committees to develop action plans. Fuel efficient stoves, which reduce pressure on firewood, have been widely adopted, and school children have learned how to adapt to climate change, care for the environment and share this knowledge with their families.



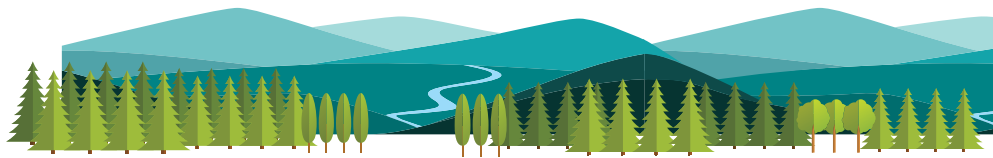
Village water-committees conserve natural water sources and monitor water points in villages



Funded by the European Union



TANZANIA



PROJECT DETAILS

The project covers an area of 56 square kilometers. Climate change related activities have been implemented in order to reduce the vulnerability of villagers as follows:

- Improved access to basic services (water, sanitation and energy) through low-cost and climate change-adapted solutions
- Put in place organizations and mechanisms to manage natural resources in a sustainable and integrated way
- Help small-scale farmers to shift from unsustainable agricultural production models to climate-smart agricultural practices
- Support communities to incorporate new market-driven enterprises and business initiatives based on the management plan of forest resources
- Increase capacity of schools to provide skills to students to understand and increase their resilience to climate change
- Increase capacity at District, Ward and Village level to cope with the negative effects of climate change by incorporating adaptation measures in planning tools and mechanisms
- Develop improved governance at village level including a guarantee by all relevant actors of accountability towards all villages and the incorporation of a gender approach

In addition to the project partners, the project has counted on the help of the University of Leeds, United Kingdom

Expected Results

- Integrated eco-village model extended to eight communities, including efficient management of natural resources, climate-smart agriculture techniques, improved water supply and sanitation services and sustainable technologies
- Institutional capability to assess, plan and implement climate change strategies is enhanced in eight villages
- Knowledge Management System is improved

Achievements

- 21% of households in eight eco-villages continue to benefit from constructed efficient cook stoves beyond the project support
- Dairy cattle project component:
 - i. 160 farmers (20 from each community) have been trained on better dairy cattle keeping,
 - ii. 17 farmers have been provided with 17 heifers. Currently there are 5 new calves from those heifers,
 - iii. 40 farmers (5 farmers in each village have been trained in the production of better cattle pastures,
 - iv. 4 farmers have been trained on artificial insemination and provided with start-up devices like insemination guns, and currently 200 cattle are artificially inseminated and calves have been produced.
- Three village Land Use Plans have been approved (For Mgambo, Kwemsoo and Kazita Villages)
- 3 Community Owned Water Supply Organizations (COWSOs) have been regis-

tered and actively manage the new water schemes

- 16 Village Loan And Serving Associations (24 members each) have been formed and are actively operating
- 71% of the people in the eight eco-villages have gained access to improved, reliable, low-cost and environmentally sustainable water supply services
- A community-led sanitation campaign is fully deployed in all 30 hamlets in the project area, with 3 hamlets having received improved sanitation certification by the District Council
- The number of people annually infringing by-laws related to water resource management is decreasing due to the work performed by the three river committees
- 27 farmers groups using climate smart agriculture techniques after demonstration training, and Muheza District Council Agriculture Officer supporting them
- Spice nursery groups have produced 135,000 seedlings
- District Environmental Management Officer (DEMO) adapting mechanisms for coordination, planning and prioritization of CC agenda at district level
- 2 MSc research / dissertation / thesis on CCA issues accomplished by the project
- 6 primary schools adapting CC challenges via SWASH guidelines, and 3 schools supported with eco-friendly sanitation facilities. 12 school teachers trained on implementation SWASH guidelines and supporting SWASH groups at schools
- 3 sub-catchment committees formed, and trained to implement water governance practises in the Zigi River

Sustainable Future

The project ended in March 2019 but the eco-village approach lives on with the ongoing commitment from local authorities to mainstream climate change adaptation into their budgets and plans. Communities and partners have plans for the following:

- i. Supporting construction of 40 latrines for the elderly and poor households
- ii. Construction of 7 washing slabs so as to lessen human activities like washing clothes at water sources
- iii. 2 more Village Land Use Plans to be approved by Muheza District Council
- iv. Enhancement of gender and human-rights based approaches through water and sanitation services planned

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This publication has been produced with the financial support of the European Union. Its contents are the sole responsibility of Joanna Martin, V&C Expert for NIRAS Finland and do not necessarily reflect the views of the European Union.



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