



# TANZANIA ECOBOMA

## A Climate Resilient Model for Maasai Steppe Pastoralists

ECOBOMA, a Climate Resilient Model for Maasai Steppe Pastoralists is one of five projects, which falls under the European Union funded (EU) Global Climate Change Alliance (GCCA). The project encompasses the EU eco-village approach, and strives to increase and diversify incomes, and strengthen resilience and reduce vulnerability to climate change. The targeted 2000 households are located in Arumeru District and depend on the ecosystem for their livelihoods, which are increasingly becoming threatened due to climate change. The project also contributes to Tanzania's poverty reduction strategy and improving the livelihoods of communities. ECOBOMA is aligned with Sustainable Development Goal 13 (SDG 13) – CLIMATE ACTION.

### KEY INFORMATION

|                        |  |
|------------------------|--|
| <b>Sector:</b>         | Climate Change   |
| <b>Lead Partner:</b>   | Istituto Oikos   |
| <b>Other Partners:</b> | Arusha District Council, Meru District Council, Nelson Mandela AIST, Oikos East Africa |
| <b>Budget:</b>         | € 1,796,262  |
| <b>Duration:</b>       | 2015 – 2019  |

### BACKGROUND

The livelihoods of pastoralists in dryland areas, such as the Maasai, depends entirely on the availability of fragile ecosystem services. In the Maasai Steppe, there is clear evidence that climate change has already dramatically affected the ecosystem. This is supported by data showing a marked decrease in rainfall over the last 20 years, which has coincided with increasing land conflict between communities. Tanzania continues to experience unpredictable weather patterns with serious drought in northern Tanzania in 2017, followed by severe flooding in 2018.



### MAIN ISSUES

- Intense grazing and a decrease in suitable pastures
- Declining water points for humans and livestock
- Increased population within pastoral societies
- Poor information on the impact of climate change

ECOBOMA has introduced 15 technologies and innovations for different sectors so far—including agriculture, energy and forestry. The rehabilitation of four earth dams has been finalized and the dams collected more than 40,000 m<sup>3</sup> of water in early 2018. This

significantly improved access to water for livestock. Local communities participated in the management of the dams. Quality assessment and the ecological monitoring of the rangelands has been conducted with the view to increase resilience by reducing the vulnerability of the target pastoralist systems.

Progress was made on building capacities of local government to cope with the impacts of climate change, as well as increasing knowledge and awareness. A group of women and youth have been trained to become leather artisans. The group processes leather and sells handmade leather products.



*Kajala Simon Sylvester, Civil Engineer, ECO BOMA, has been working with pastoralists to preserve the Lemanda Dam used for livestock.*

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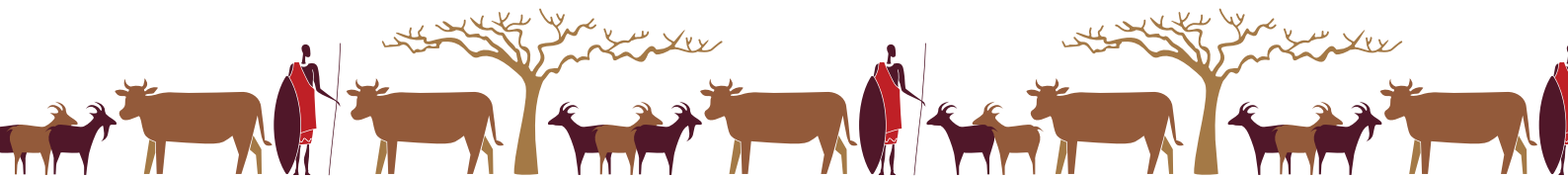
THE GLOBAL CLIMATE CHANGE ALLIANCE PLUS INITIATIVE



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TANZANIA



## PROJECT DETAILS

Covering a geographical area of circa 280 square kilometres the overall objectives of the project is to increase vulnerable Tanzanian communities' capacity to adapt to the adverse effects of climate change and contribute to poverty reduction in rural areas. Specific objectives are to improve livelihoods and the resilience of the Maasai communities of Northern Tanzania through the application of the ECOBOMA model: a low cost, culturally acceptable, replicable model of holistic solutions to vulnerable pastoral systems.

Target groups include:

- 2,000 families of pastoralist and agro-pastoralist (about 250 bomas/ homes) to engage in the project
- 500 women and youth to be empowered
- 6,000 children attending eight primary schools in the target area to be inspired and engage in activities
- Local authorities in four villages and seven sub-villages and traditional leaders to manage activities
- Scientific journalists from national and local media to publish/ broadcast content

The aim is to empower marginalized pastoral communities and increase the capacity of local government authorities in Arusha and Meru District Councils in addressing the challenges of climate change. Poverty reduction efforts is also an aim.


The project design is the result of a collaborative and participatory contribution from Istituto Oikos and the Nelson Mandela African Institution of Science and Technology, two highly experienced partners in the field of pastoralist community development, ecological monitoring and wildlife protection.


The overall methodology is the utilization of a participatory climate change vulnerability assessment and the prioritisation of the guidelines of the 'Climate Vulnerability and Capacity Analysis' (CARE, 2009).

## Expected Results

- Access to ecosystem services protected and improved
- Economic assets of pastoralist communities developed
- Local government capacity to cope with Climate Change increased
- Knowledge about climate-related vulnerabilities and impacts of Climate Change adaptation solutions increased

## Achievements

- Rehabilitation of four earth dams (more than 40,000 m3) and promotion of proper management involving local communities
- Data collection for ecological monitoring to assess vulnerability and promote grazelands conservation
- Establishment 156 ha of community forests 
- Training of 30 village games scouts and establishment of environmental patrols by the village authorities in collaboration with the District Environmental Officers
- Planting indigenous species (e.g. commiphora), as fencing in bomas and dams, as protection from soil erosion and wind and prevention against wildlife/ livestock intrusion
- Consultation with international and national experts on grazeland conservation efforts
- Construction of 2 pilot biogas digesters and bomas assessment for installation of 18 biogas digesters as alternative energy source
- Creation of a cooperative (women and young men) to tan leather
- Training of 24 officers from the district councils on land use planning
- Study visit for local government and traditional leaders on proper rangeland and water management
- Incorporation of climate change activities in districts' planning and budgets
- Increased involvement of district officers in implementation of project activities (134 staff involved against targeted 100 staff)
- Approval of 12 bylaws (against target of 15 bylaws by end of project)

- Capacity building for Community Animal Health Workers with the view to increase quality and access to the services
- Effective and successful introduction and adoption of smart agriculture techniques
- Procurement of 3 meteorological stations for installation in the project area 
- 4,600 pupils participating in a climate change and risk management awareness campaign
- Communication strategy in place and ad-hoc awareness campaigns through participation in marking International Days relevant to climate change (e.g. Earth Day, World Environmental Day)

## Next Steps

- Conduct practical training on land use planning for the District Council staff and prepare a land use plan for one village to include climate-related issues
- Installation of 18 biogas digesters and training of two people from each village on maintenance and service of the digesters
- Conduct practical training and community awareness on improved livestock services
- Capacity building for local government and communities in managing shared resources
- Prepare and implement an exit strategy with focus on promoting sustainability of the results achieved with the successful interventions.
- Farmers mobilization for establishment of individual household demo plots for next rainy season
- Ecological monitoring and data analysis to map vulnerability, raise awareness and propose solutions to local communities
- Continuous awareness raising to a broad audience and information sharing with eco-villages



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