

# TANZANIA IGUNGA ECO-VILLAGE PROJECT

13 CLIMATE  
ACTION



## Integrated Approaches for Climate Change Adaptation

SEPTEMBER 2019

*The Integrated Approaches for Climate Change Adaptation in Igunga District, Tabora Region 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 has made strides to increase and diversify incomes, and strengthen resilience and reduce vulnerability to climate change.

The ten targeted communities depend on the ecosystem for their livelihoods, which are increasingly becoming threatened due to climate change.

Through a Farmer Field School approach, farmer groups have been trained in a wide range of proven climate adaptation technologies, including integrated pest control, fish farming, poultry keeping, tree planting and renewable energy sources. Innovative techniques to 'Recharge, Retain and Re-use water' have been tested and expanded in the project area.

The project also contributes to Tanzania's poverty reduction strategy and improving the livelihoods of communities. The Igunga eco-village project is aligned with Sustainable Development Goal 13 (SDG 13) – CLIMATE ACTION.

### KEY INFORMATION

**Sector:** Climate change adaptation strategies

**Lead Partner:** Heifer Nederland

**Other Partners:** Heifer International Tanzania, Igunga District Council, Aqua for All and ICIPE

**Budget:** € 2,132,480

**Duration:** 2015 – 2019

### BACKGROUND

Igunga is one of six districts in the Tabora region, located on the western plateau. It is one of the driest districts in Tanzania with an average rainfall of 500–700 mm per annum. Although this part of Tanzania experienced serious drought in 2017, the area was subject to severe flooding in 2018 in two villages. This unpredictable rainfall pattern continues to test the resilience of communities here.

Igunga is a poor district. The average estimated daily income is \$1.5 and 45% of the population lives below the poverty line and is predominantly rural. 85% of the inhabitants depend on smallholder agriculture and livestock as main sources of food and income. Crop production is affected by erratic and insufficient rainfall. Livestock husbandry is mostly traditional. Pasture is available in the rainy season but scarce in the dry season. This leads to overgrazing.

Although stable water bodies are scarce, in some areas small-scale fishing takes place. Women provide a substantial part of agriculture labour but traditionally own only a small percentage of assets. Women have limited control over decision-making although this is improving with more women than ever attending village



meetings and getting involved in more activities.

The district experiences a high prevalence of HIV/AIDS.

Igunga district is strongly affected by the adverse effects of climate change. Prolonged dry spells, floods, loss of natural resources such as water and wood, and increased incidence of pests and diseases result in lower agricultural production and high livestock mortality rates. Traditional farming methods and overgrazing has led to further degradation of soil and loss of water.



Fishing nets are made to breed tilapia in a nearby man-made dam

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## PROJECT DETAILS

In the Igunga Eco-village project local communities in ten villages have been supported to increase their resilience towards the adverse effects of climate change. The project covers an area of 783.04 square kilometers and intervenes through a multidisciplinary approach integrating different sectors: agriculture and livestock, water, sustainable energy, natural resource management and socio-economic resilience.

Lessons learned have been used to upscale activities at local level and to improve legislation at district level. Good practices also shared in international fora. Through a Farmer Field School approach, farmers have been trained on a wide range of proven climate adaptation technologies, including integrated pest control (push-pull), tree planting and renewable energy sources. Innovative techniques to 'Recharge, Retain and Reuse (3R) water' were tested and expanded, in order to make more efficient use of available water resources.

In close cooperation, farmers and the district government choose and adjust the most appropriate solutions to improve natural resource management, increase agricultural production and strengthen socio-economic resilience. These strategies have been translated into bylaws, policies and budgets.

Lessons learned have been shared locally with district communities and staff, and with a wider community of policy makers, development practitioners and academics. 6,000 families, consisting of 36,000 individuals, are direct participants. These are the more vulnerable households of the villages, including people with disabilities, female headed households and those living with HIV/AIDS. Another group of 6,000 families (36,000 individuals) have benefitted indirectly from the project, resulting in a total outreach of 72,000 people.

## Expected Results

- Targeted communities trained to better adapt to climate change through improved Natural Resource Management, sustainable increase in agricultural productivity and a strengthened socio-economic situation
- Enhanced the capacity of the Igunga District Council (IDC) to access, plan and implement climate change adaptation strategies'
- Experience and lessons learned under the eco-village approach were documented and shared with appropriate stakeholders, including relevant policy makers

## Achievements

- Natural Resource Management committees have been established in nine villages comprising 272 members
- 55,632 trees have been planted in schools, villages, district hospitals and prisons
- 8 Active water committees (community owned water supply organizations) established and registered in 5 villages with 85 members
- Recharge, Retain and Re-use water activities implemented including:
  - 7 Hand dug shallow wells and 7 ponds constructed and rehabilitated and 2 other new sites of each in the process of construction
  - Sanitation and hygiene awareness raising in ten villages through community-led total sanitation approaches done
  - Igunga town water pipeline, 7 ponds and 7 hand dug ponds protected by using vetiver grasses
- Farmer field schools have trained 310 groups to adopt effective climate change adaptation activities
  - Biofertility training for 85 farmers
  - 12 Kitchen gardens created with 180 women members
- Fish farming adopted as a commercial enterprise
- Ten fish cage groups have placed 50,000 fingerlings into Mwamapuli Dam
- 36 brooder chicks, used for raising chicks, have been adopted by farmers and local artisans have been invited to other regions to carry out pen construction and have been paid
- More than 8,000 participants were introduced to tree planting and nurseries, including school environment clubs and prisons
- 333 fuel efficient stoves and 40 biogas plants adopted by farmers, local artisans have been invited to other regions to construct stoves and have been paid
- 9 water harvesting tanks constructed by project and 9 have been adopted by farmers
- 29 local artisans trained on how to construct and use slow sand filters for domestic water treatment and more than 15 farmers have adopted this technique
- 54 local artisans trained on the installation and use of a SATO pan – as a result more than 60 farmers have adopted the technique
- 315 members have joined HIV/AIDS and gender committees
- Workshops carried out for district authorities about climate change participatory approaches
- 130 savings and credit groups have been established, each group have saved amounts ranging from €120 -€3,000
- 1,500 website hits in one year and growing with a Kiswahili version planned
- Strong media coverage of the eco-village model in Igunga
- Development and launch of six village bylaws
- Development and implementation of ten village action plans

## Sustainable Future

The project will end in September 2019 but the eco-village approach lives on with a strong commitment from the district authorities to mainstream climate change activities into their budgets and plans. Communities and the Igunga District have plans for the following:

- Implementation of an Annual Survey
- Public awareness campaigns concerning water and health due for launch
- Biogas beneficiaries trained on the advantages of using bio-slurry, the product used in biogas digesters for farming
- 440 solar lights have been distributed to farmers and students and another 160 are in a procurement process
- Two fish farming groups and 60 chicken rearing groups passed on the gift of fingerlings and chickens to their neighbours
- Continue with workshops for the district authority about climate change participatory integrated approaches
- Continue with farmers' sensitization meetings on the formation of savings and credit groups
- Continue with farmers' sensitization meetings to continue with passing on the gift



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