GCCA+
THE GLOBAL CLIMATE CHANGE ALLIANCE PLUS INITIATIVE

Funded by the European Union

TANZANIA

13 CLIMATE ACTION

GCCA TANZANIA

ECO-VILLAGES IN TANZANIA: A MODEL FOR CLIMATE CHANGE ADAPTATION

HIGHLIGHTS OF THE GCCA TANZANIA PROGRAMME PHASE II 2015-2019

ABOUT GCCA TANZANIA AND GCCA+

ECO-VILLAGES IN TANZANIA: A MODEL FOR CLIMATE CHANGE ADAPTATION

Welcome to the final Global Climate Change Alliance (GCCA) Tanzania highlights report. It presents the results achieved by the 5 climate change adaptation projects that were implemented in different agro-ecological zones in Tanzania in the period 2015 to 2019 with funding from the European Union (EU) Global Climate Change Alliance. Through the application of the eco-village approach, all projects contributed to building the resilience of local communities, working in close collaboration with local government authorities.

This report provides an overview of the main activities undertaken by the 5 projects and the impact they have achieved in strengthening the livelihoods resilience of the target communities and in preserving the natural resources on which they depend. The most promising interventions are now included in local government plans and have been documented and shared widely through policy briefs, social media and news outlets.

The targeted local communities are now better equipped to deal with the extreme weather events that result from climate change. It's with these people in mind, the water-committees, the bee-keepers, the tree-planters, the leather-tanners, the women's groups to name a few, that GCCA Tanzania dedicates this report.

The Global Climate Change Alliance (GCCA+) globally

The Global Climate Change Alliance was established by the European Union (EU) in 2007 to strengthen dialogue and cooperation with developing countries, in particular the least developed countries (LDCs) and small island developing States (SIDS). It started its work in just four pilot countries. Today it has a budget of more than €300 million and is one of the most significant climate initiatives in the world. It supports 51 programmes around the world and is active in 38 countries, 8 regions and sub-regions and at the global level.

In 2014, a new phase of the GCCA, the GCCA+ flagship initiative began. The GCCA+ focuses its technical support on three priority areas:

- Climate change mainstreaming and poverty reduction
- Increasing resilience to climate-related stresses and shocks
- Sector-based climate change adaptation and mitigation strategies

GCCA Tanzania

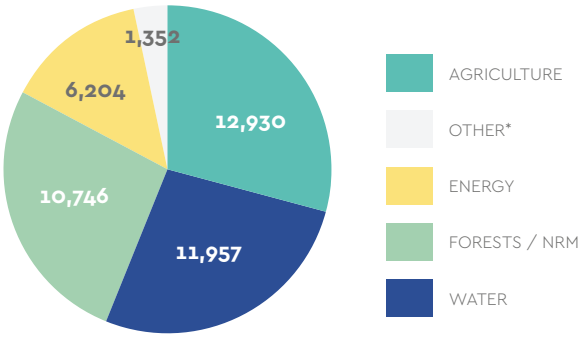
The overall objective for GCCA Tanzania is to strengthen the resilience of vulnerable Tanzanian rural communities to the adverse effects of climate change and contribute to poverty reduction. The GCCA Tanzania programme started with a first phase from 2011 to 2013. Under the second phase from 2015 to 2019, five projects were supported to use the eco-village approach to increase the climate change resilience of the target communities. The support comprised of project funding, as well as dedicated technical assistance (TA) to strengthen Monitoring & Evaluation (M&E) and Visibility & Communication (V&C) activities.

The eco-village concept aims to regenerate social and natural environments in villages around the world. While there is no one way of being an eco-village, there are three core practices at the heart of the eco-village approach:

- Being rooted in local participatory processes
- Integrating social, cultural, economic and ecological dimensions in a whole systems approach to sustainability
- Actively restoring and regenerating social and natural environments

GCCA TANZANIA PHASE II 2015 – 2019
RESULTS AT A GLANCE

44,189 households reached, disaggregated by sector:



(*Other includes training on climate change adaptation and support to savings and loans groups)

AN AVERAGE OF **16** INTERVENTIONS PROMOTED BY EACH PROJECT

32 VILLAGE PLANS AND AGREEMENTS FACILITATED THAT NOW INCLUDE INTERVENTIONS PROMOTED BY THE PROJECTS

1,500 HECTARES FOREST

23,000 HECTARES RANGELAND

BROUGHT UNDER **SUSTAINABLE** MANAGEMENT

WATER STORAGE CAPACITY

900 m³ FOR DOMESTIC WATER SUPPLY

80,000 m³ FOR AGRICULTURE/ LIVESTOCK CONSTRUCTED /REHABILITATED

91 SAFE COMMUNITY WATER POINTS CONSTRUCTED OR REHABILITATED

28 SETS OF BY-LAWS DEVELOPED AND INTEGRATED IN VILLAGE AND DISTRICT PLANS

OVER **A MILLION** TREES PLANTED

71% SURVIVAL RATE

OVER **6,700** FUEL-EFFICIENT COOK STOVES INSTALLED

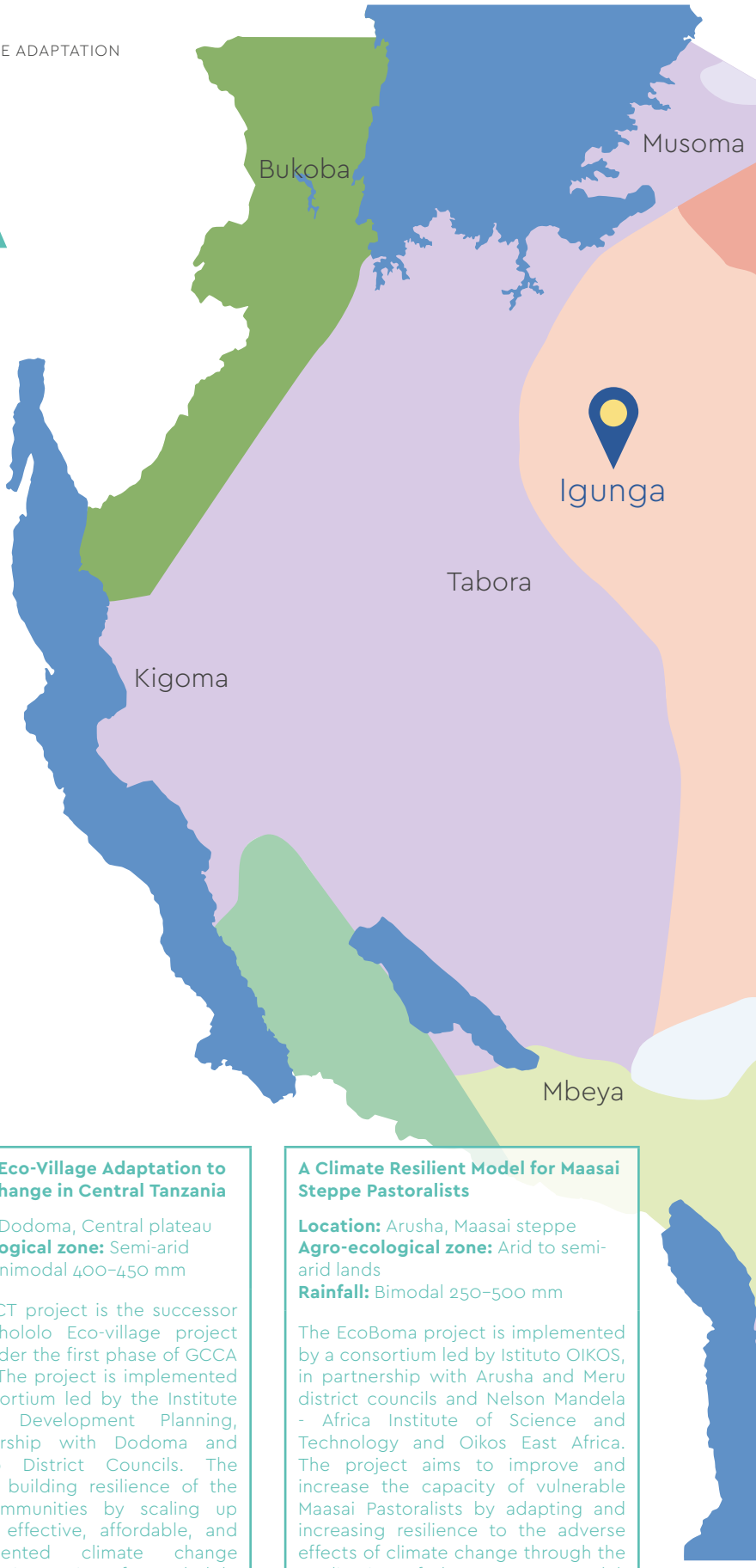
DELIVERING UP TO **50%** REDUCTION IN FIREWOOD USE

CAPACITY BUILT OF OVER **400** LOCAL GOVERNMENT AUTHORITY (LGA) STAFF THROUGH TRAINING AND BY INVOLVING THEM IN PROJECT ACTIVITIES

OVER **300** DIFFERENT KNOWLEDGE PRODUCTS DEVELOPED AND DISSEMINATED

AWARENESS CREATED AMONG YOUTH THROUGH SUPPORT FOR **42** SCHOOL CLUBS

THE GCCA TANZANIA PROJECTS



GENERAL CHARACTERISTICS

- located in different agro-ecological zones
- climate change adaptation activities in four main sectors: agriculture, water, forests and energy
- working closely together with village and district government authorities
- explicit attention for knowledge sharing and communication activities
- inclusive participatory approaches, ensuring involvement of traditional leaders

CF PEMBA – Scalable Resilience: Outspreading Islands of Adaptation project

Location: Wete, Pemba Island
Agro-ecological zone: Coastal
Rainfall: Bimodal 700–1200 mm

The project is implemented by Community Forests Pemba in partnership with Community Forests International and the Wete District Authority. The project builds on the achievements of the precursor project "Resilient Landscapes for Resilient Communities in Pemba", which was funded under the first phase of GCCA Tanzania. The project supports 26 rural communities on Pemba island and surrounding islets to build a green economy while adapting to climate change. Activities include tree planting, agroforestry, renewable energy generation, rainwater harvesting and permaculture kitchen gardens.

EcoACT – Eco-Village Adaptation to Climate Change in Central Tanzania

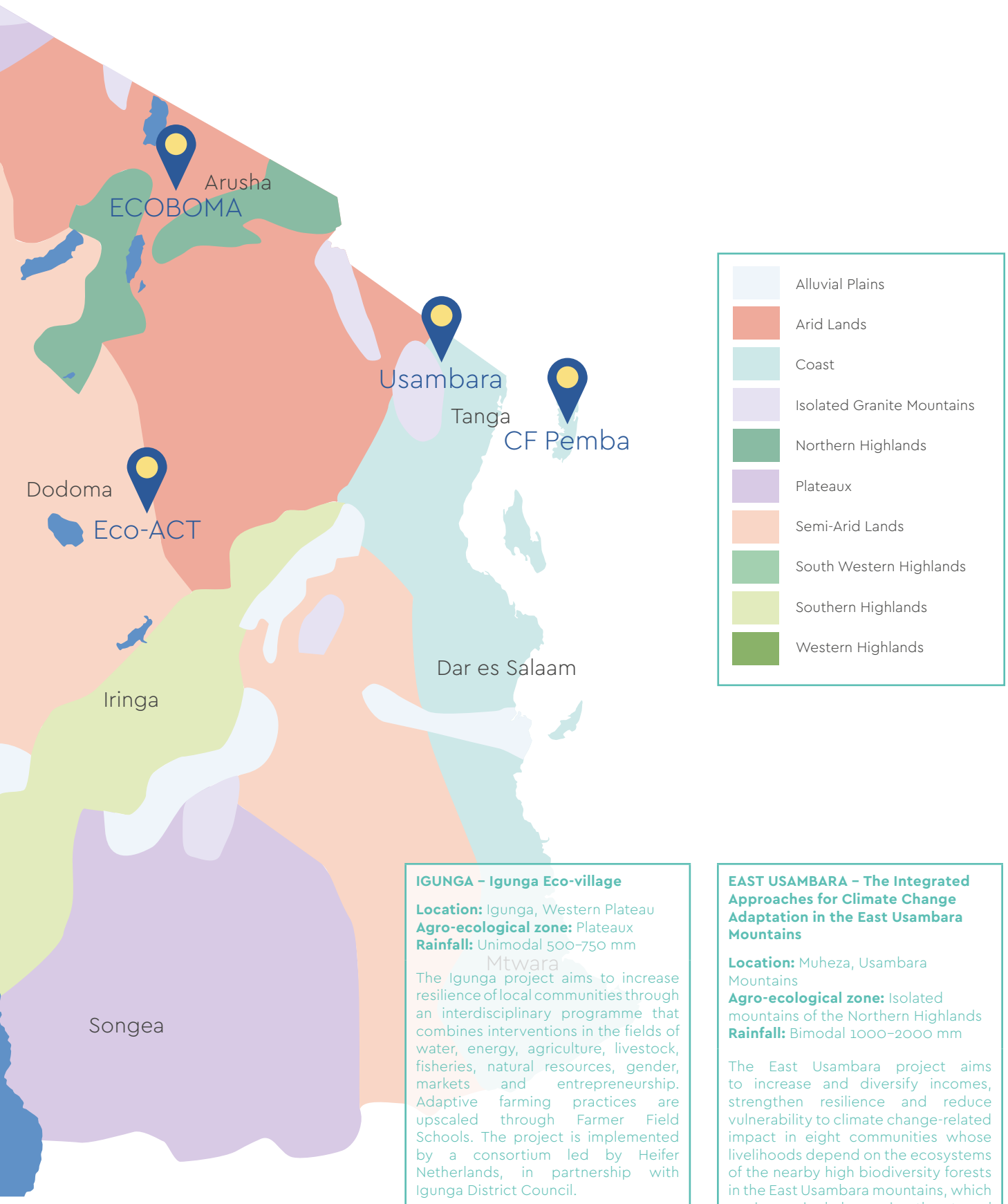
Location: Dodoma, Central plateau
Agro-ecological zone: Semi-arid
Rainfall: Unimodal 400–450 mm

The EcoACT project is the successor to the Chololo Eco-village project funded under the first phase of GCCA Tanzania. The project is implemented by a consortium led by the Institute of Rural Development Planning, in partnership with Dodoma and Chamwino District Councils. The project is building resilience of the target communities by scaling up the most effective, affordable, and gender-oriented climate change adaptation innovations from Chololo Ecovillage in water, agriculture, energy and forestry.

A Climate Resilient Model for Maasai Steppe Pastoralists

Location: Arusha, Maasai steppe
Agro-ecological zone: Arid to semi-arid lands
Rainfall: Bimodal 250–500 mm

The EcoBoma project is implemented by a consortium led by Istituto OIKOS, in partnership with Arusha and Meru district councils and Nelson Mandela - Africa Institute of Science and Technology and Oikos East Africa. The project aims to improve and increase the capacity of vulnerable Maasai Pastoralists by adapting and increasing resilience to the adverse effects of climate change through the application of the EcoBoma model: a low cost, culturally acceptable, replicable model of holistic solutions to vulnerable pastoral systems.



IGUNGA – Igunga Eco-village

Location: Igunga, Western Plateau
Agro-ecological zone: Plateaux
Rainfall: Unimodal 500–750 mm

The Igunga project aims to increase resilience of local communities through an interdisciplinary programme that combines interventions in the fields of water, energy, agriculture, livestock, fisheries, natural resources, gender, markets and entrepreneurship. Adaptive farming practices are upscaled through Farmer Field Schools. The project is implemented by a consortium led by Heifer Netherlands, in partnership with Igunga District Council.

EAST USAMBARA – The Integrated Approaches for Climate Change Adaptation in the East Usambara Mountains

Location: Muheza, Usambara Mountains
Agro-ecological zone: Isolated mountains of the Northern Highlands
Rainfall: Bimodal 1000–2000 mm

The East Usambara project aims to increase and diversify incomes, strengthen resilience and reduce vulnerability to climate change-related impact in eight communities whose livelihoods depend on the ecosystems of the nearby high biodiversity forests in the East Usambara mountains, which are increasingly becoming threatened due to climate change. The project is implemented by a consortium led by Spanish NGO ONGAWA, in partnership with Muheza District Council.

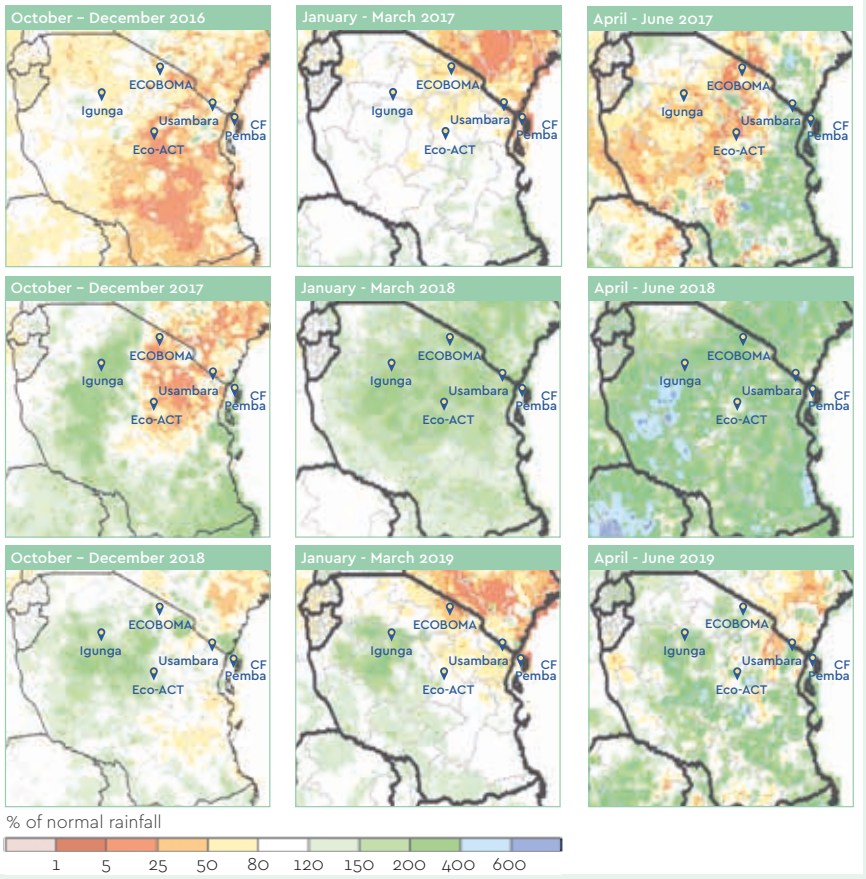
SIGNS OF CLIMATE CHANGE IMPACT: HIGH RAINFALL VARIABILITY

Rainfall patterns varied considerably from one year to the next during the years 2016 to 2019 when the projects were on full implementation mode. This was most noticeable in the arid and semi-arid zones where the EcoBoma, Igunga and EcoAct were implemented, with the 2016-2017 season being extremely dry and the 2017–2018 season extremely wet. The main consequences of the drought for the projects were the failure of climate smart agriculture interventions (and some other interventions like fish farming) and, for EcoBoma, the long absence of their target group, pastoralists, who had to go in search of pastures elsewhere. In 2017–2018 the very high rainfall supported good agricultural yields but also led to soil erosion and to damage to project-supported infrastructure works due to flooding.

In the meantime, it has become clear that the 2019–2020 rainy season has been breaking records in terms of overall rainfall, due to relatively warm waters in the Indian Ocean off the East African coast, considered a direct consequence of climate change.

Whereas most attention in Tanzania has so far gone to building resilience against lower rainfall and drought conditions, the experience from the GCCA projects shows there is also a clear need to adapt to very high rainfall with its associated risk of flooding and damage to fields, dams, houses, etc.

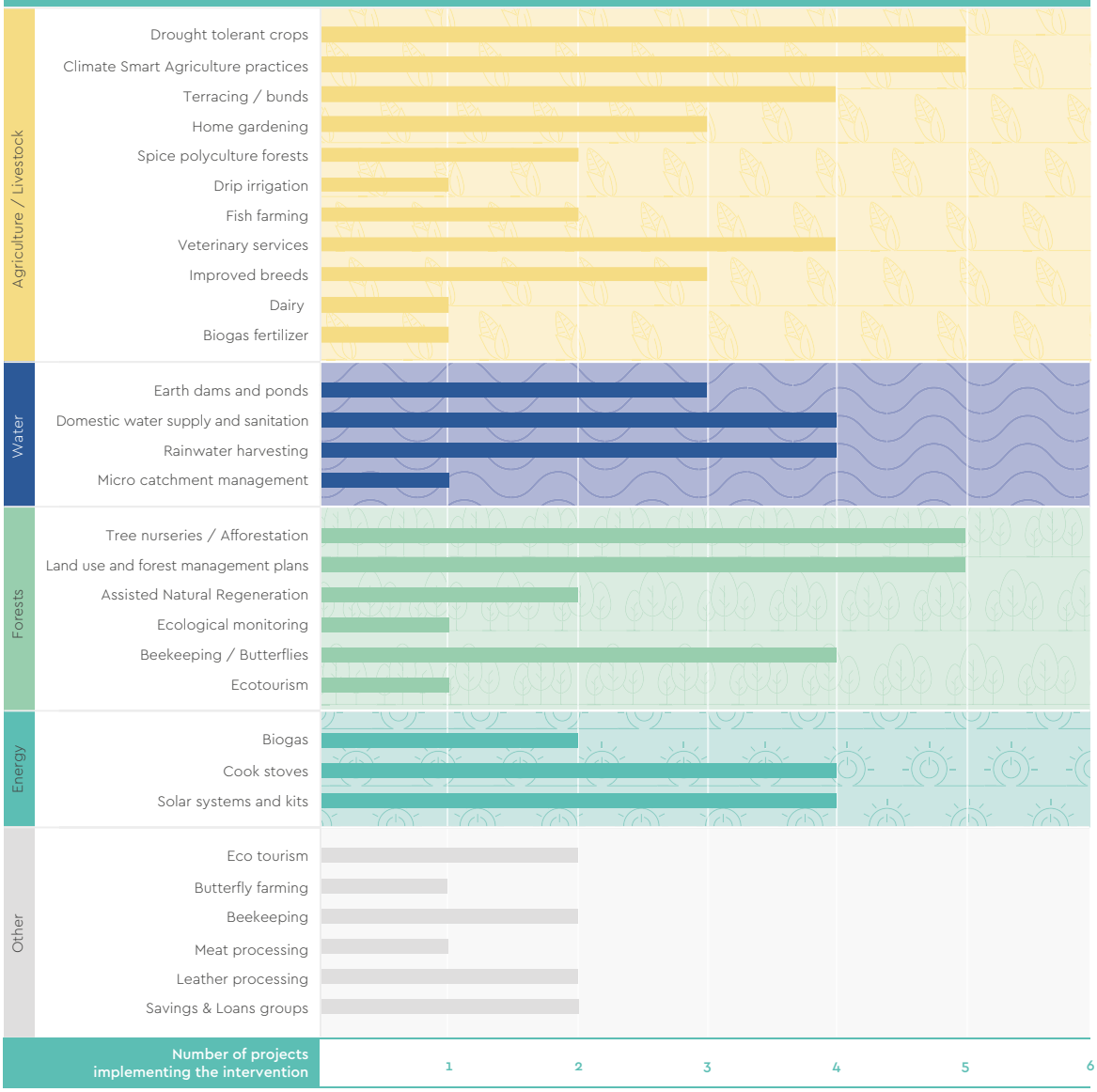
COMPARISON RAINFALL ANOMALIES
Tanzania rainy season 2016–2017, 2017–2018 and 2018–2019



(Map source: Climate Prediction Centre – NOAA; Arc2 satellite rain estimates)

MAIN INTERVENTIONS PROMOTED BY THE GCCA TANZANIA PROJECTS

MAIN PROJECT INTERVENTIONS AND NUMBER OF PROJECTS PROMOTING THEM



AGRICULTURE / LIVESTOCK

Climate Smart Agriculture

A number of Climate Smart Agriculture (CSA) practices were promoted in the projects that operated in the semi-arid and arid zones – EcoAct, EcoBoma and Igunga. Early maturing drought tolerant crops were the main focus in this respect. Other typical CSA practices promoted include intercropping, use of manure / compost, terracing ("fanya juu" terraces), kitchen gardens and promoting agroforestry. Based on the projects' endline surveys it appears that drought tolerant seeds and intercropping are the most appreciated and adopted practices across all projects, indicating that farmers see these as contributing to good yields while not requiring very high investments.

Spice forest polyculture

CF Pemba introduced the concept of "spice forest polyculture" in its target communities. Beneficiary farmers were supported in growing a mix of spices and fruit trees within their fields such as clove trees, cinnamon, vanilla, avocado, mango, and banana. By growing a number of different crops, with different sensitivities to changing climatic conditions and with different harvesting periods, this diversification directly contributes to building farmers' climate resilience.

Improved livestock breeds and husbandry

The Igunga, EcoAct and East Usambara projects all supported the introduction of improved chicken, goat and/or cattle breeds and related improved husbandry practices. Of these, the improved chicken breeds in particular were very successful and provided mostly women with a good income source, fetching market prices 50 to 100% higher than the local breeds.

Quality Declared Seeds – EcoAct

While the Igunga and EcoBoma projects supplied the farmers with seeds bought elsewhere, EcoAct developed a system of local production of high-quality seeds through collaboration with the Tanzania Official Seed Certification Institute – TOSCI to address the problem that 75% of farmers were using low quality seeds. Seeds from the 28 farmers who managed to comply with the TOSCI guidelines were then declared QDS – Quality Declared Seeds. This now means that high quality seeds are available locally at favourable prices.

Vetiver grass

The Igunga project introduced vetiver grass as a measure to protect the soil against erosion and also support water infiltration, making it is simultaneously a good adaptation option for both droughts and extreme rainfall events. The grass itself is very resilient and can survive long periods of drought.

WATER SUPPLY AND MANAGEMENT

Community rainwater harvesting systems

The CF Pemba project developed large rainwater harvesting systems benefitting whole communities. These systems targeted remote islets without or with limited fresh water resources and used ferro-cement construction to be able to build large tanks. A total of 5 systems were constructed, benefitting around 440 HHs.

Water for domestic use

All projects except EcoBoma supported interventions for domestic water supply. A variety of technologies were promoted, some very innovative, some more established. All projects combined have created a total storage capacity of 926 m^3 and a total of 91 rehabilitated and new community water points. Projects also built the capacity of the Community Owned Water Supply Organisations (COWSOs) for Operation & Maintenance for the systems. All COWSOs have developed systems to collect water fees from community members with the money intended to go towards the maintenance of the systems. Project experience indicates that good governance issues around water systems management requires significant attention and support.

Shallow wells with rope pumps

The Igunga project introduced the technology of locally produced rope pumps to draw water from protected shallow wells. The overall cost for construction of a shallow well with rope pump is around TZS 1.8 million (approximately EUR 9,700) which is a fraction of the cost for construction of a borehole. The project installed 9 pumps, each serving around 50 HHs. For these wells to provide water year-round in the face of climate change they need to be installed in areas where groundwater supply is known to be good. To this end, the project undertook a detailed Water Inventory.

Water for livestock

Both EcoAct and EcoBoma rehabilitated dams for livestock. For EcoBoma this was one of the major focus area given their main target group were the Masaai pastoralists. Four degraded earth dams were rehabilitated and the volume of water storage capacity in the 4 dams increased by an estimated 47,000 m^3. Thanks to appropriate designs such as the provision of cattle troughs and planting of live Commiphora fences to keep cattle away from the dam itself, combined with building the capacity of dam management committees, the rehabilitated dams are functioning properly. The extra water capacity can support 13,000 cows for 6 months, or 90,000 goats and 440 HHs.

Solar based community water supply

The EcoAct project rehabilitated an existing community water supply system, replacing the generator with a solar pump system. The project learnt that the availability of free unsafe water sources, especially during the rain seasons, limits the use of the water from the solar based safe water points, where water is charged at TZS 25/= (Euro 0,01) per 20 litres bucket (poor HHS are exempt from paying this fee). At the end of the project, around 60% of the HHs were drawing water from the safe water points.

Gravity systems and protection of natural springs

The East Usambara project was implemented in a mountainous area. This provided opportunities for water supply systems based on gravity, and on turning unprotected natural springs into safe water sources. A total of 4 gravity water supply systems were built and 11 natural springs and their micro-catchments were protected. providing access to a safe water source for around 8,000 people.

Balancing water availability with available grazing

Increasing water availability in pastoralist areas carries very high environmental and social risks. Good water availability attracts more livestock, potentially causing severe negative impacts on the rangeland's ecology. The EcoBoma project therefore designed dams in such a way that their capacity is aligned with availability of pastures in surrounding areas to avoid overgrazing.

NATURAL RESOURCES MANAGEMENT AND ENERGY

131 NURSERIES ESTABLISHED

MORE THAN **1 MILLION** TREES TRANSPLANTED

71% SURVIVAL RATE

1,500 HECTARES FOREST

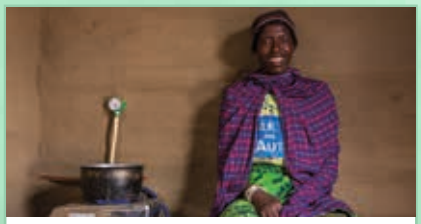
BROUGHT UNDER SUSTAINABLE MANAGEMENT THROUGH PARTICIPATORY FOREST MANAGEMENT PLANS & AGREEMENTS

23,000 HECTARES RANGELAND

BROUGHT UNDER SUSTAINABLE MANAGEMENT THROUGH PARTICIPATORY ECOLOGICAL MONITORING WITH LOCAL ASSESSORS & IMPROVED LAW ENFORCEMENT THROUGH LOCAL VILLAGE GAME SCOUTS.

6,782 FUEL-EFFICIENT COOK STOVES INSTALLED

50% REPORTED FIREWOOD REDUCTIONS



Biogas – only recommended in specific areas

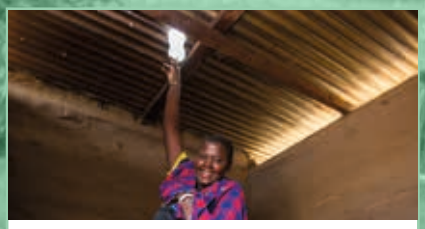
Several projects promoted household biogas installations but uptake beyond directly supported beneficiaries has been very low due to the prohibitive installation costs. Only the EcoBoma project saw some encouraging signs of uptake, due to the fact that firewood is very difficult to come by in the arid zone where the project was implemented, while dung was readily available.

Farmer Managed Natural Regeneration

The EcoAct project introduced the concept of Farmer Managed Natural Regeneration (FMNR) in its target communities. FMNR encourages the systematic re-growth of existing trees and shrubs from tree stumps, roots and seeds. It can be used wherever there are living tree stumps with the ability to re-sprout. It is used in particular to restore degraded land. The FMNR approach was highly appreciated by beneficiaries. It is seen as an easier way to promote tree growth than through the transplanting of seedlings, since management of an established tree stump is considered easier than managing a seedling.

Smart measures to promote adoption and effective use of fuel-efficient stoves

East Usambara achieved high adoption of stoves through two rather ingenious approaches to promote their use. First of all, the project facilitated the elaboration of by-laws in the villages that make the use of fuel-efficient stoves mandatory. Secondly the locally trained artisans were exempted from doing other community related work and so could concentrate on constructing stoves (done for free in the target communities).



Litre of light, the simple solar solution

A typical dwelling of EcoBoma's main target group, Maasai pastoralists huts has no windows. To bring more light into the dwellings during the day, Eco-boma promoted a very simple technology called the Litre of light, which is basically a plastic bottle filled with water that is installed in the roof. On a sunny day it provides a light intensity equivalent to a standard 60W bulb. At the end of the project, 119 households had one installed at a cost of around 2.5 USD each, while new orders were coming in for the locally trained installation technicians.

ALTERNATIVE LIVELIHOODS

*€3,000
MILLION
SAVED BY SOME GROUPS

*€9,000
MILLION
ECOBOMA TURNOVER IN 2019

*€2,500
MILLION
EARNED

AN AVERAGE
327%
PRICE INCREASE PER KG

Savings & Loans groups

- Important as an alternative income generating activity, especially in years when erratic rainfall leads to low agricultural yields
- Undertaken by Igunga and East Usambara
- Can be combined with other activities such as Farmer Field Schools
- High adoption rates

Leather tanning

- EcoBoma: 15 women
- EcoAct: 30 youth

Butterfly keeping (East Usambara)

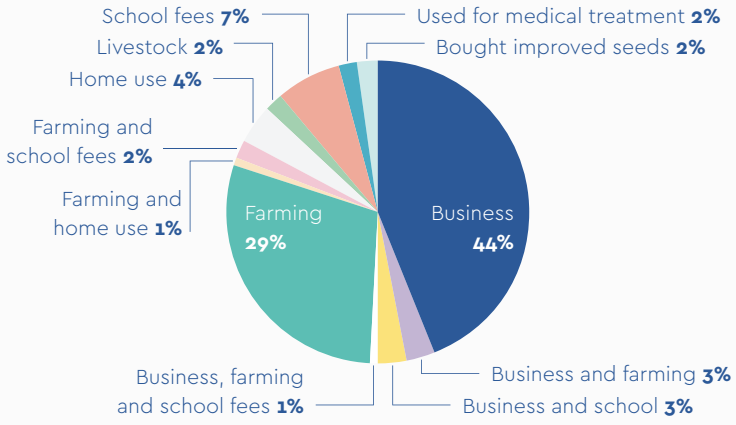
Activity on hold due to nation-wide ban on transporting wildlife 3,000)

Vanilla value chain

Community Forests Pemba actively supported the value chain development for the most valuable crop that can grow on Pemba island, vanilla, through a partnership with a private company in the UK. It has led to a price increase from an average of TZS 300,000/- (Euro 110) to between TZS 800,000/- (Euro 290) and TZS 1,000,000/- (Euro 360) per kilogram.

How the loans have been used – example of East Usambara Savings & Loans groups

Livelihood diversification and other VSLAs loan uses



GENDER:
A GOOD BALANCE BETWEEN MEN AND WOMEN BENEFICIARIES

Different approaches were used for gender mainstreaming, but all leading to a good balance between men and women beneficiaries:

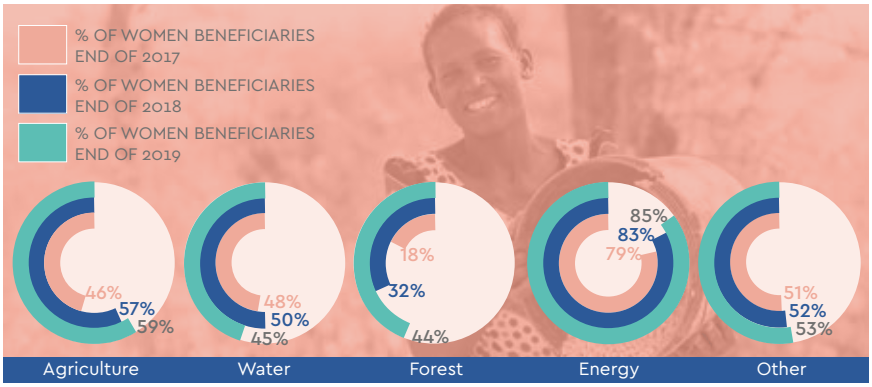
Igunga: a comprehensive approach based on initial gender analysis and minimum quota for participation of women in activities

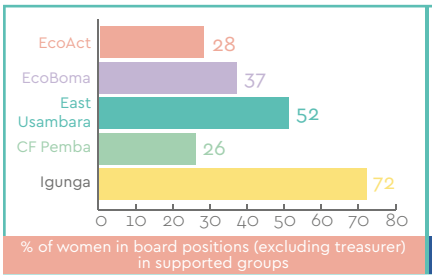
Igunga: – set up gender committees to promote fair inclusion of women in activities

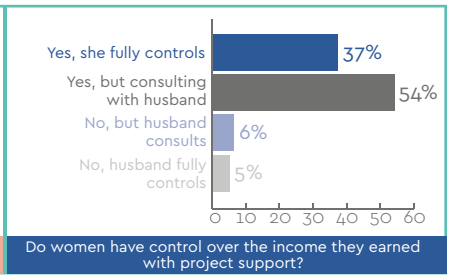
EcoAct: applied gender guidelines for selection of group members

CF Pemba: promoted women over-representation in income generating activities and in decision-making positions in groups.

EcoBoma: given the traditional patriarchal society of the pastoralist, it focused on specific activities for women such as leather tanning.







Gender in business development

Community Forests Pemba developed a Gender Responsive Business Development Curriculum to address the unique barriers facing women entrepreneurs. Some additional measures instituted over the project period to increase participation of female beneficiaries included: increasing the number of in-community and one-on-one trainings with women; building women-only cooperatives; and selecting female staff as the primary instructors for livelihood activities targeted to women. These measures created a safer environment for women to participate in project activities.

Pro-poor approaches: overcoming barriers

Projects found it challenging to ensure the poorest households in the communities were also benefitting from the project activities. These households were often not well presented in village government structures and faced multiple barriers in adopting promoted interventions. In spite of these challenges, the projects managed to secure pro-poor aspects in the interventions through pragmatic approaches.

Examples of investment barriers for poor Households (HHs) to participate in interventions:

- manure for improved agriculture – requires livestock
- trench digging for terraces – requires labour and time that a poor HH may not have
- improved animal husbandry like chicken shed – requires material
- secure land rights to invest in e.g. terraces
- shares in S&L groups
- payments for water from improved domestic water supply
- minimum level of skills required to grow new crop varieties such as vanilla in spice forests

Examples of pragmatic pro-poor measures adopted by the projects:

- exempting poor households from paying water fees
- allowing poor households access to protected forest areas to collect forest products in times of real need
- providing higher levels of subsidy to poor households for farming inputs (e.g. Quality Declared Seeds)
- explicitly targeting poor households for low-cost activities like improved chicken breeds.
- provide support (financial, logistical) to ensure poor households can participate in Farmer Field School activities

BUILDING LOCAL GOVERNMENT CAPACITY

All projects worked closely together with local government authorities at district and village level and built their technical, managerial and governance capacities. While some formal training was provided, the main focus was on capacity development through involving them directly in project activities through joint project design and implementation, joint field monitoring visits and participation in project-related meetings. Project end evaluations show that the LGAs have highly appreciated their strong involvement in all aspects of the projects, further illustrated by the fact that several district commissioners and District Executive Directors have been acting as effective ambassadors for the projects.

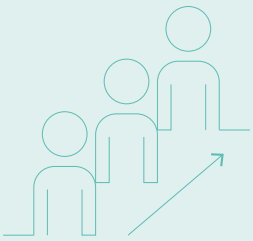
Mainstreaming climate change at local level

Working with the village and district authorities, the projects promoted the inclusion of successfully piloted climate change adaptation interventions in district plans and budgets.

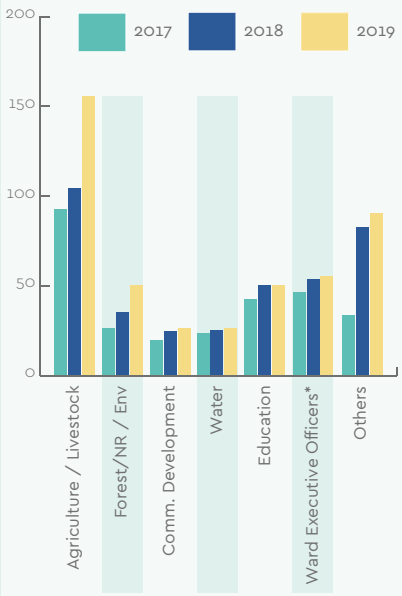
Project	Project interventions integrated in district plans
EcoAct	Drought tolerant crops, Climate smart agriculture, Solar water pumps, Home gardening, Soil erosion control, Fish farming, Enforcement of environmental and natural resources bylaws, boreholes, solid waste management, Conserve aquatic biodiversity and environment.
EcoBoma	Live Commiphora fencing, dam management, biogas, Land Use Plans, establishment of committees, Climate Smart Agriculture, community forests
East Usambara	Soil conservation, Protection of water sources, Climate Smart Agriculture and Tree planting included in departmental plans. 5 Village Land Use Plans endorsed
CF Pemba	With the different LGA situation in Zanzibar, project activities were incorporated in departmental plans rather than in district plans.
Igunga	Tree planting, fish farming, sanitation & hygiene

Improving natural resources management through by-laws

All projects supported the elaboration and implementation of by-laws in support of the sustainable use of natural resources. A total of 28 sets of by-laws were elaborated and included in village and district plans. However, the main challenge with by-laws for natural resources management is not their formulation but their effective enforcement. Projects learnt that this can be complicated in the social structure of a relatively small community. Nevertheless, some examples of successful enforcement have already been documented.



Number of local government staff involved in the projects

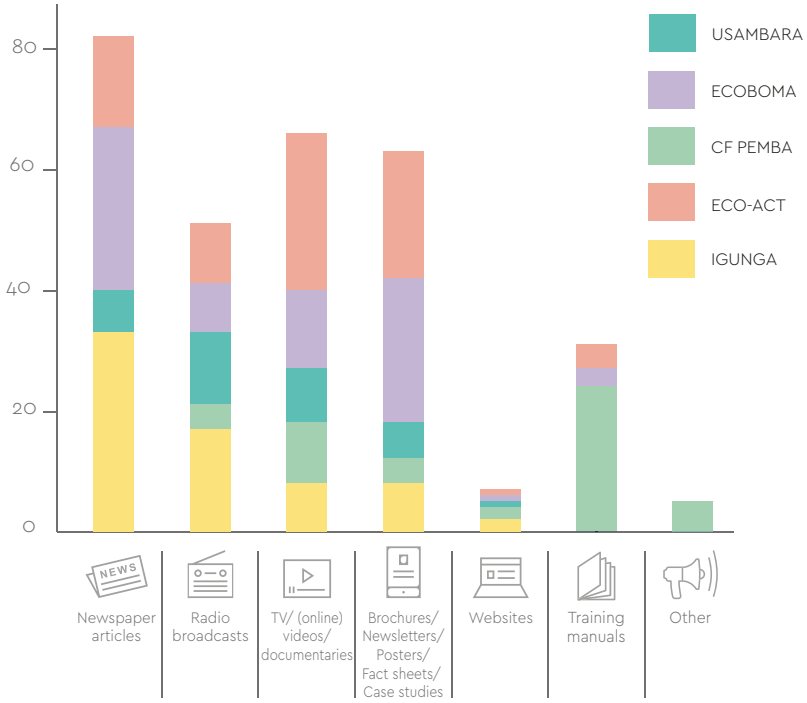


Examples of by-laws enforcement

- In Igunga it has been reported that farmers are penalised for letting their cattle graze close to transplanted trees, which is prohibited under new village by-laws.
- EcoBoma reported law enforcement related to environmental protection by the Village Game Scouts trained by the project, which translate into confiscated charcoal bags, fines for illegal tree cuttings and poaching.
- In East Usambara, at least 8 cases of illegal human activities polluting surroundings of water sources have been addressed and have since ceased.
- In one of the villages in the EcoAct project a community member was fined TZS 50,000/= for destroying a by-law poster (and was also required to replace the poster) in land allocated for village forest.
- In CF Pemba community members discovered illegal harvesting and hotel development in a critically endangered forest set aside for conservation within their local CoFMA. Community members contacted the project and the Department of Forests and the illegal cutting was halted.

VISIBILITY AND COMMUNICATIONS

The projects produced an impressive array of knowledge products, as evidenced in the graph in the figure below, showing the number and type of communication material produced by the end of the GCCA Tanzania programme.



Communication material produced by the projects

In addition to these materials produced by the projects, the GCCA Tanzania TA team, led by the Visibility & Communications expert and working in collaboration with the projects, produced other communications materials to reinforce project messages, as follows:

- 15 stories from the field in 2017, 2018, 2019
- 15 project fact sheets (annual updates 2017, 2018, 2019 for each of the five projects)
- 5 case studies in 2018 in line with the 10th anniversary of GCCA+ Implementing long-term adaptation strategies in LDCs & SIDS
- 5 policy briefs 2 published in 2019, 3 published in 2020
- 5 GCCA Tanzania articles published in Tanzanian newspapers during 2017 – 2019
- 5 GCCA Tanzania articles published on the global GCCA+ website during 2017 -2019
- 15 short videos published during 2017 – 2019
- 2 GCCA Tanzania promotional videos during 2017 – 2019
- 2 closing event stories published on Cap4Dev website
- 15 press releases for GCCA related events during 2017 – 2019
- 3 GCCA Highlights reports 2017, 2018, 2019

An overall highlight of 2019 was when GCCA Tanzania was awarded Best Market Stall at the Regional GCCA+ Conference held in Kigali. The award was a 'people's award' voted by participants who attended the conference.

https://europa.eu/capacity4dev/gcca-community/discussions/tanzania-climate-smart-agriculture-five-ecovillages

https://www.gcca.eu/stories/tanzania-wins-best-market-stall-promoting-women-and-youth-eu-climate-change-regional

▶ https://www.youtube.com/watch?v=vk61Gxn_SLM

▶ https://www.youtube.com/watch?v=9wZaaQ6Okmo&t=47s

IMPACT AND SUSTAINABILITY

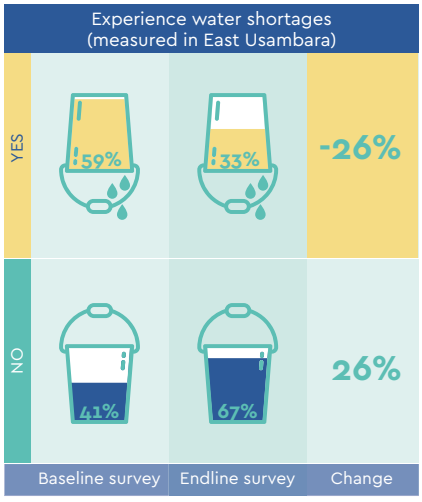
ASSESSED ACROSS 5 DIMENSIONS

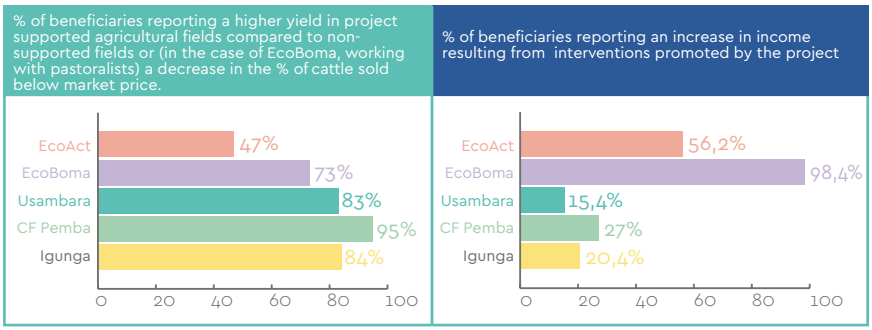
DIMENSION 1: The depth of resilience built – Good impact but more needed to strengthen full food and water security

Food security was promoted through:

1. Interventions aimed at strengthening the main livelihoods options of the rural communities in Tanzania: rainfed agriculture and animal husbandry/pastoralism.
2. Interventions aimed at providing alternative income generation.

The results, as measured during end evaluations, indicate that the projects have indeed contributed to food security, although the drought year 2016–2017 showed that more is needed to achieve full year-round food security in the face of climate change.





Main sources of increased income:

- Increased agricultural yields allow for selling surplus
- Better condition of cattle thanks to rangeland management and improved water availability
- Strengthened value chains, in particular for vanilla in CF Pemba (including taking out the middle men) but also for spices in East Usambara.
- Improved chicken and goat breeds fetch higher prices on the market
- The savings & loans groups allow people to start income generating activities
- Targeted income generating activities like leather processing, beekeeping
- Artisans are earning an income through construction of stoves, biogas installations, latrines etc.

Climate Smart Agriculture – not the cure-all for all agricultural climate change impacts

Good improvements in yields in the semi-arid areas through climate smart agriculture technologies were achieved in years with reasonable amounts of rainfall. However, in the driest year of the project implementation period, the 2016/2017 season, not only the traditional agricultural fields, but also the CSA fields (with drought tolerant crops) in EcoAct, Igunga and EcoBoma largely failed to produce. This confirms the need to provide alternative income opportunities that can compensate for the lack of agricultural output.

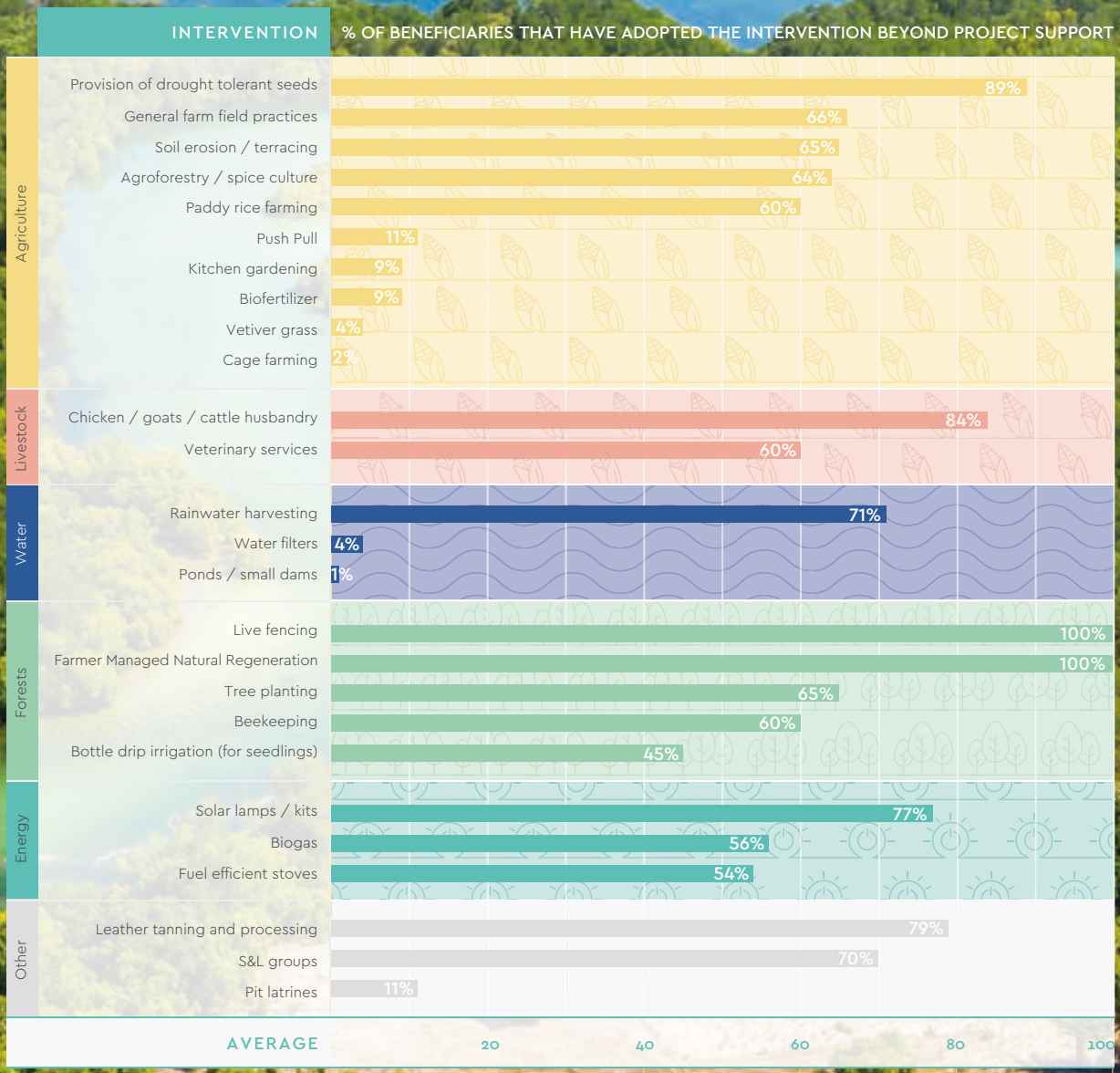
Four of the five projects have improved household water security through climate resilient community water supply interventions, providing access to a safe water source. In addition, two projects (EcoAct and EcoBoma) have improved water security for livestock. Four of the five projects have improved household water security through climate resilient community water supply interventions, providing access to a safe water source. In addition, two projects (EcoAct and EcoBoma) have improved water security for livestock.

DIMENSION 2: The level of adoption of supported interventions – a mixed picture

Long term impact can only be achieved if beneficiaries adopt interventions and integrate them into their livelihoods systems beyond project support. Some interventions have clearly caught on and continue to be applied without further project support while others are seeing very little continued uptake. Not surprisingly, adoption is generally best for technologies that are low cost, do not require much labour and provide concrete benefits in the short term.

High level of innovation >> low adoption

Igunga is the project with the highest number of really innovative interventions based on low-cost technology such as "push pull", vetiver grass, rope pumps for shallow wells, subsurface dams and water filters. Adoption levels of these innovations are generally low. It indicates that more time is needed for people to start appreciating and adopting new technologies, and especially technologies that are relatively far removed from their current practices.



DIMENSION 3: Replication – early days but promising signs of replication beyond direct project beneficiaries

Replication of the promoted interventions by non-beneficiaries is a clear sign that the interventions are considered as appropriate and affordable for the specific agro-ecological and socio-cultural context. Although it is still early to be able to assess how far replication will really take off, 58% of project beneficiaries indicated during the endline surveys that they knew one or more non-beneficiaries who had already started adopting project interventions, in most cases without outside support.

End evaluations concluded that potential for replication is high given the that projects focused on interventions with low-cost technology for which inputs are available locally. The most promising ones include:

- Quality Declared Seeds
- the rope pumps in Igunga
- meat drying in EcoBoma
- kitchen gardens in CF Pemba
- fuel efficient stoves in East Usambara

Replication through Passing on the Gift

Projects used different approaches to promote replication and upscaling. Igunga used Heifer's tried and tested Passing On the Gift approach, which requires supported group members to pass on both the physical project gifts like improved livestock breeds, and the skills acquired through training by the project. In the case of the Igunga project the approach was applied for improved chicken breeds. Initially 1,500 households received chickens from the project, raised them and produced offspring. A total of 1,005 households (67%) passed on some of their offspring to other households. The remaining 33% will pass on the offspring of their chickens as well, and that also goes for the additional 1,005 households that were reached. In this way, the ripple effect will continue beyond the project period.

DIMENSION 4: Available capacity

The projects used various principles and approaches to build capacity at community and district level.

- Building on existing local structures as much as possible
- Using the Farmer Field School approach – not only for agricultural training but also for example as a starting point for Savings & Loans groups
- Training local artisans (youths in particular) in technical skills such as O&M of water supply systems, construction of fuel-efficient stoves and rangeland monitoring.
- Building capacity not only in technical areas but also in aspects such as group dynamics and good governance.
- Involving village and district staff in implementation and monitoring of the interventions

End evaluations confirmed the increase in awareness and capacity, concluding that this forms a good basis for continued support for CCA interventions in their areas. They also concluded that there is now a higher level of trust between district authorities and community members, a direct result of the approach followed by all projects to have district staff directly involved in field activities.

Limited resources for climate change mainstreaming at local government level – a continuing challenge

Climate change is a cross-cutting issue and does not have its own budget lines in the government system. Government budgets tend to focus on social sectors, leaving aspects such as building climate resilience largely dependent on donor funding. A policy brief developed by GCCA Tanzania argues that specific budget lines and codes should be provided for the promotion of CCA interventions in district plans and budgets.

DIMENSION 5: Enabling policy environment

Broader awareness creation and policy influencing at national level has been achieved through the large number of knowledge products and knowledge sharing activities produced by GCCA Tanzania and the five policy briefs that were elaborated on the basis of lessons learnt. These have all helped to put the importance of CCA for rural communities on the national policy agenda, although it is too early to expect concrete evidence of a strengthened policy environment for climate change adaptation in rural Tanzania.

Dissemination of policy briefs – approach used by GCCA Tanzania

- Meeting with parliamentary committees and members of parliament;
- Meeting with high-level government officials;
- Traditional media including TV and radio talk show, print and social media engagement; and
- Presentation at stakeholders' events.

From the parliamentary committee and high-level meetings several issues were raised include concerns on lack of adequate awareness on climate change related issues to MPs and LGAs officials; limited resources to implement water and land planning and governance initiatives; and gaps in existing laws that hinder climate resilience initiatives. Through media TV and radio and print channels it was estimated that 1,500,000 people were reached.

LESSONS LEARNT

Broad range of interventions needed to build resilience

The positive results of the GCCA Tanzania projects show that it is important to promote a mix of direct adaptation interventions (like climate smart agriculture) and indirect adaptation interventions (such as Savings and Loans groups). The indirect ones are particularly important in rural Tanzania in years when extreme drought or extreme rainfall leads to large scale rainfed crop failure.

The importance of inclusive participatory approaches

The GCCA Tanzania experience confirms the need to make sure that participatory processes include all community members and leaders (including traditional leaders), and that benefits are shared equitable across community members. Reaching the poorest of the poor will always remain a challenge, but through pragmatic approaches like exempting them from paying water fees it is possible to ensure they also benefit from project interventions.

Flexibility required in programming and implementation

All projects used logical frameworks to define their objectives and expected results. Such logframes are often considered as static reference frameworks throughout the implementation of a project. In the case of GCCA Tanzania however, the projects were allowed to make changes to their project design and to their budget allocations, as long as these were sufficiently justified. This flexibility has made it possible for the projects to allocate the resources to the most promising interventions and strengthen overall sustainability prospects, thereby maximising the value for money.

Need for effective M&E for learning and adaptive management

Projects should have sufficient M&E resources to provide the evidence and learning that forms the basis for adaptive project management. It should mix quantitative and qualitative methods, with the latter important to bring out the "story behind the numbers". Effective use of M&E results requires clear mechanisms to feed these results back into project planning and management processes.

Importance of value chain development and private sector involvement

The GCCA Tanzania projects have focused mostly on production (supply side) rather than on full value chain development (addressing both the supply and demand side). In the few cases where projects collaborated with private sector on value chain development, such as for leather processing, vanilla production and provision of solar kits, this has led to very encouraging outcomes in terms of generating sustainable benefits for the target group.

For further information please visit www.gcca.eu and https://eeas.europa.eu/delegations/tanzania_en

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