

**CGIAR Research Program on  
Climate Change, Agriculture and Food Security (CCAFS)**

**Village Baseline Study:  
Site Analysis Report for Usambara –  
Lushoto, Tanzania (TZ0105)**

**October 2012**

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The detailed tools and guidelines used for the implementation of the village baseline study across all CCAFS sites, as well as the mapping outputs of topic 1 at a higher resolution can be accessed on our website (<http://ccaafs.cgiar.org/resources/baseline-surveys>).

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## **Abstract**

The village baseline study of Kwang'wenda village in the CCAFS benchmark Lushoto site, Tanzania took place from April 27 to 29, 2011. Focus group discussions were conducted separately for men and women.

Population growth and agriculture intensification have led to encroachment onto the forest areas, reduction in riparian vegetation, cultivation along the riverbank, and soil fertility depletion on the farmland. The overall area under farming has increased but individual farms have become smaller and production per unit area has reduced due to land subdivision.

The community's vision of the future includes the conservation and expansion of the forest area by planting more trees and enforcing restrictions on illegal logging. It also calls for promoting agroforestry systems in the farmlands and allowing riverine vegetation to mature, in order to ensure clean waters in the rivers.

The discussion groups identified 32 organisations, and 60% of them were involved in food security assistance, prioritizing food availability. Radio is the most significant source of information on agriculture in the village. Men were better informed about and interacted with groups that operated beyond the locality, while women were more aware of and engaged in groups that operated within the community but had limited operational capacity.

## **Keywords**

Baseline; Tanzania; village study; participatory mapping; organisations; access to information

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## Introduction

The CGIAR Research Program on Climate Change, Agriculture and Food Security (CCAFS) is a strategic ten-year partnership between the Consultative Group on International Agricultural Research (CGIAR) and the Earth System Science Partnership (ESSP) to help the developing world overcome the threats posed by a changing climate, to achieving food security, enhancing livelihoods and improving environmental management. In 2010, CCAFS embarked on a major baseline effort at household, village and organisation levels across its three target regions, namely East Africa, West Africa and South Asia (more information about CCAFS sites is available on our website <http://ccafs.cgiar.org/where-we-work>). CCAFS trained survey teams from partner organisations in the three regions to conduct the baseline.

The baseline effort consists of three components – a household survey, village study and organisational survey. (1) The household baseline survey, a quantitative questionnaire on basic indicators of welfare, information sources, livelihood/agriculture/natural resource management strategies, needs and uses of climate and agricultural-related information and current risk management, mitigation and adaptation practices, was implemented by CCAFS partners in 35 sites (245 villages) with nearly 5,000 households in 12 countries to date. (2) CCAFS partners are implementing village baseline studies (VBS) and (3) organisational surveys in one out of the seven villages within each CCAFS site where the household survey was implemented. The plan is to revisit these villages in roughly 5 years, and again in 10 years, to monitor what changes have occurred since the baseline was carried out. The goal is not to attribute these changes to the program, but to be able to assess what kinds of changes have occurred and whether these changes are helping villages adapt to, and mitigate, climate change.

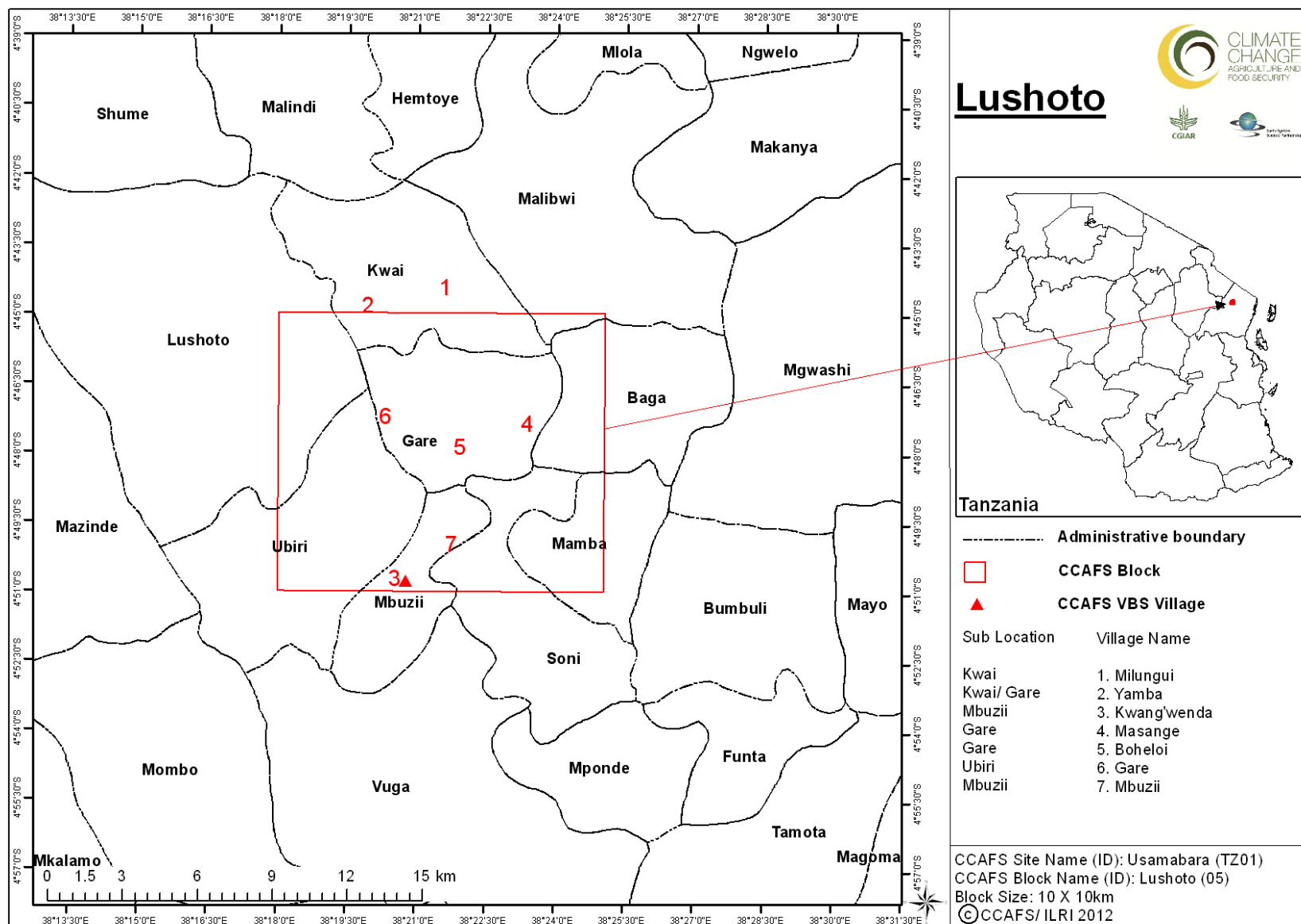
The focus of this site analysis report is the village baseline study (VBS). To date, fifteen VBS were conducted in the three CCAFS regions. The VBS aims to provide baseline information at the village level about some basic indicators of natural resource utilisation, organisational landscapes, information networks for weather and agricultural information, as well as mitigation baseline information, which can be compared across sites and monitored over time.

The objectives of the village baseline study are to:

- Provide indicators to allow us to monitor changes in these villages over time. In particular, changes that allow people to
  - Manage current climate risks,
  - Adapt to long-run climate change, and
  - Reduce/mitigate greenhouse gas emissions
- Understand the enabling environment that mediates certain practices and behaviours and creates constraints and opportunities (policies, institutions, infrastructure, information and services) for communities to respond to change
- Explore social differentiation:
  - Perceptions of women and men will be gathered separately to be able to present different gender perspectives.
  - Focus group participants will be selected to present perceptions of groups differentiated by age.

The detailed tools and guidelines used for the implementation of the village baseline study across all CCAFS sites, as well as the manuals, data and analysis reports can be accessed on our website (<http://ccafs.cgiar.org/resources/baseline-surveys>).

Map 1. Location of the Kwang'wenda village in the CCAFS benchmark Lushoto site, Tanzania



This report presents the results of the Village Baseline Study (VBS) conducted on April 27 to 29, 2011 in the village of Kwang'wenda, Tanzania (Map 1). The village geocoordinates are -4.798; 38.365. Kwang'wenda village was chosen for the baseline survey because of its relative central location in the block. There is reasonable accessibility to the village although in the event of heavy rain the roads can be difficult to navigate. The survey team was composed of two facilitators, two note takers and two translators. Each pair was male and female.

Consultations were made with the village authorities concerning time and place of meeting. They selected the Kwang'wenda primary school as an appropriate venue. The site team leader sent invitations out to three sets of participants who were chosen using random sampling. Each group was composed of 15 men and 15 women to allow for collection of gender differentiated information. Three consecutive days were selected for the survey and on each day only one set of participants were expected to participate in the survey. The whole community was invited to on the first day of the survey for an introductory session where this survey was explained to them. In addition, the team shared results of an earlier household survey. Briefly, the team said that land use and crops have changed over time due to favourable market prices. There has been a remarkable reduction in soil moisture and fertility. There is increased search for seeds that are resistant to drought, pests and diseases to ensure better quality and price of produce, especially cabbages, tomatoes and carrots. Horticulture and maize are mostly grown in wetlands. There has been increased use of pesticides, manure and fertilizers for fast maturing crops. Low crop productivity due to reduced soil fertility has led to the need for more arable land. After the introductory session the rest of the community was set free and only the invited group of 15 men and 15 women remained behind to carry on with the survey. At the end of the third day, when the survey was completed, the whole community was again invited to attend a debriefing session where the team presented a summary of the week findings.

On day one the separate groups of males and female participants were asked to identify and sketch the resources that are important to the community. The outputs of this exercise were rough maps that highlighted the community landmarks. The participants were then shown detailed satellite image of the block, and were asked to identify the landmarks on the satellite image. After completing this, the participants were asked to define the current state of the resources, their past state and what caused any changes that may have existed.

On day two the team worked with each group to understand the organisational landscape and the links that exist between the organisations in relation to food security in a normal year, in a year of crisis and in relation to natural resource management. The outputs were diagrams showing the organisational landscape. Information on each organisation was also captured in cards. The links between the organisations were shown using lines and arrows on the diagrams.

There were two main tasks on day three. The first one was to work with each group on understanding information networks in relation to weather elements and farming activities, the result of which being summarized in diagrams. The second task was to bring the two groups together and generate a vision of what they would want their village to be like in the future. The output was a map/sketch showing “the vision of the community.”

## **Data analysis**

### **Topic 1: Community resources - participatory satellite imagery interpretation and visioning**

Community infrastructure and resources and gender-differentiated access and utilisation of those resources were analysed, based on a process of participatory visual interpretation of high-resolution satellite imagery (RapidEye). The aim was to create a basic understanding of existing community resources, as well as of community dynamics in relation to its environment. The participants discussed the current state of those resources, in terms of quality, access, management, history and potential drivers of change. Another group developed an image of village resources and human well-being into 2030 to understand opportunities, constraints and aspirations for the future. The detailed

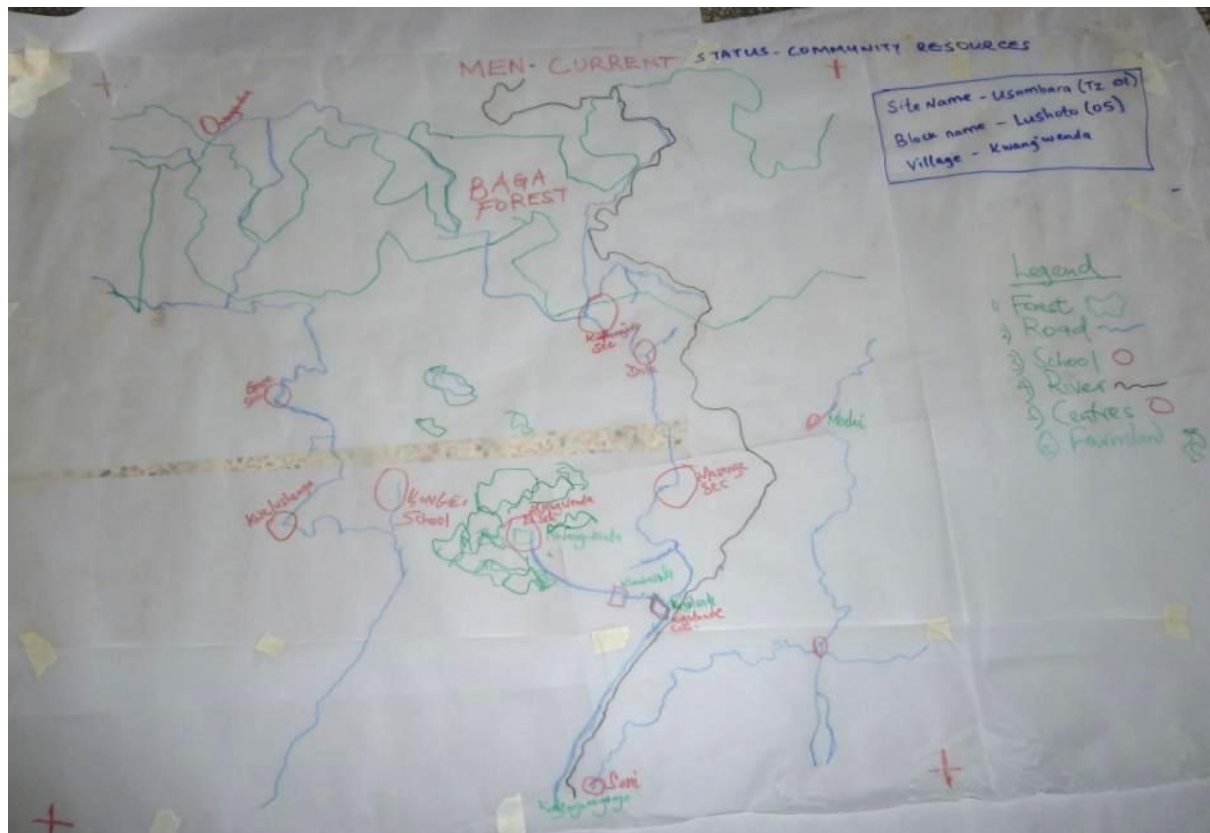


approach to this exercise is outlined in the CCAFS Village Baseline Study Implementation Manual (follow the link to the baseline study from our website <http://ccaafs.cgiar.org/resources/baseline-surveys>).

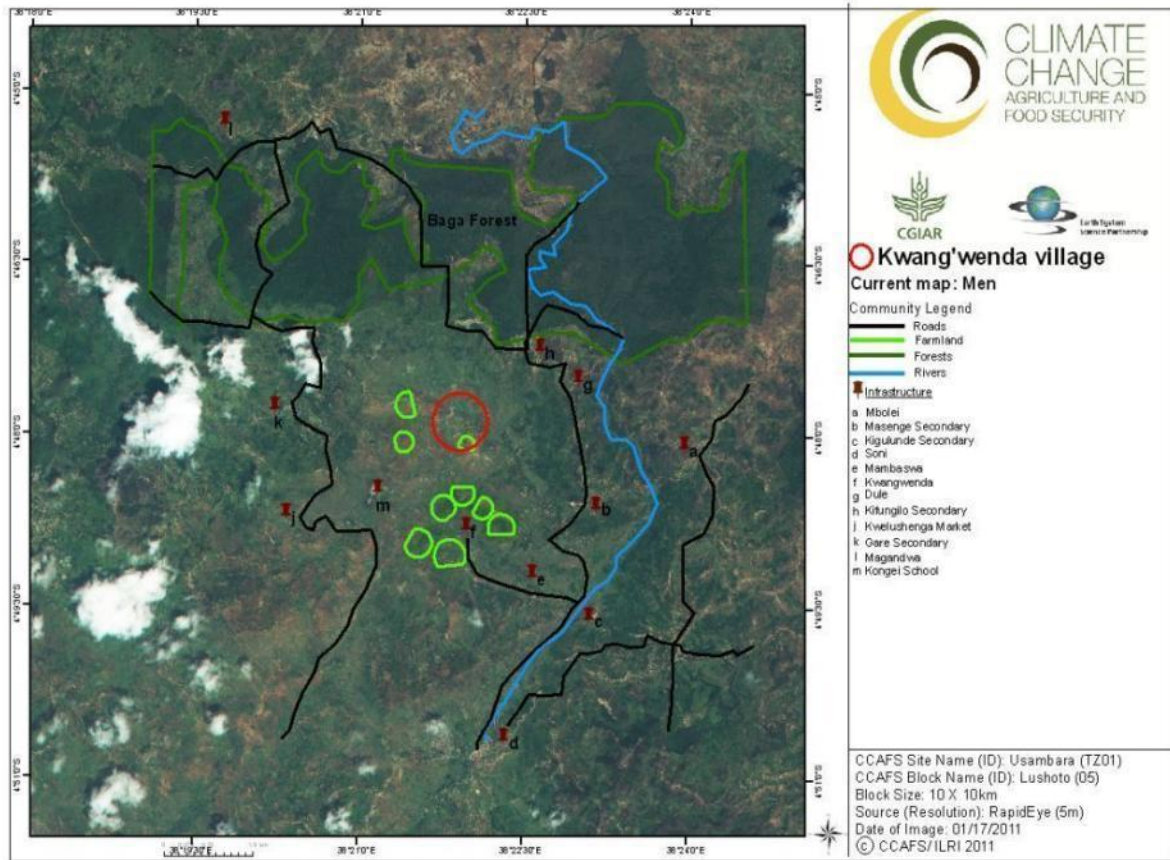
### A. Current resources

The first task on day one was to introduce the community group to a satellite image of the block and work with each group to identify and map/sketch resources that are important to the community, their current state, their past state and what caused the changes. Separate groups of men and women were instructed to draw maps on the ground outlining the main landmarks in the village, including the natural resources and infrastructure (road, school, religious buildings, etc.). The resulting sketches were transferred onto flipcharts. The CCAFS team then placed a satellite image of the community on a wall facing the participants, and asked them to point out their village and current location on the image. Once the participants established their bearings on the satellite image, the team positioned a piece of tracing paper on top of the satellite image, asked the participants to identify on the satellite image the landmarks they had previously drawn on the ground, and recorded those landmarks on the tracing paper (See Photo 1). The resulting maps of current community resources are presented below (Map 2 and 3).

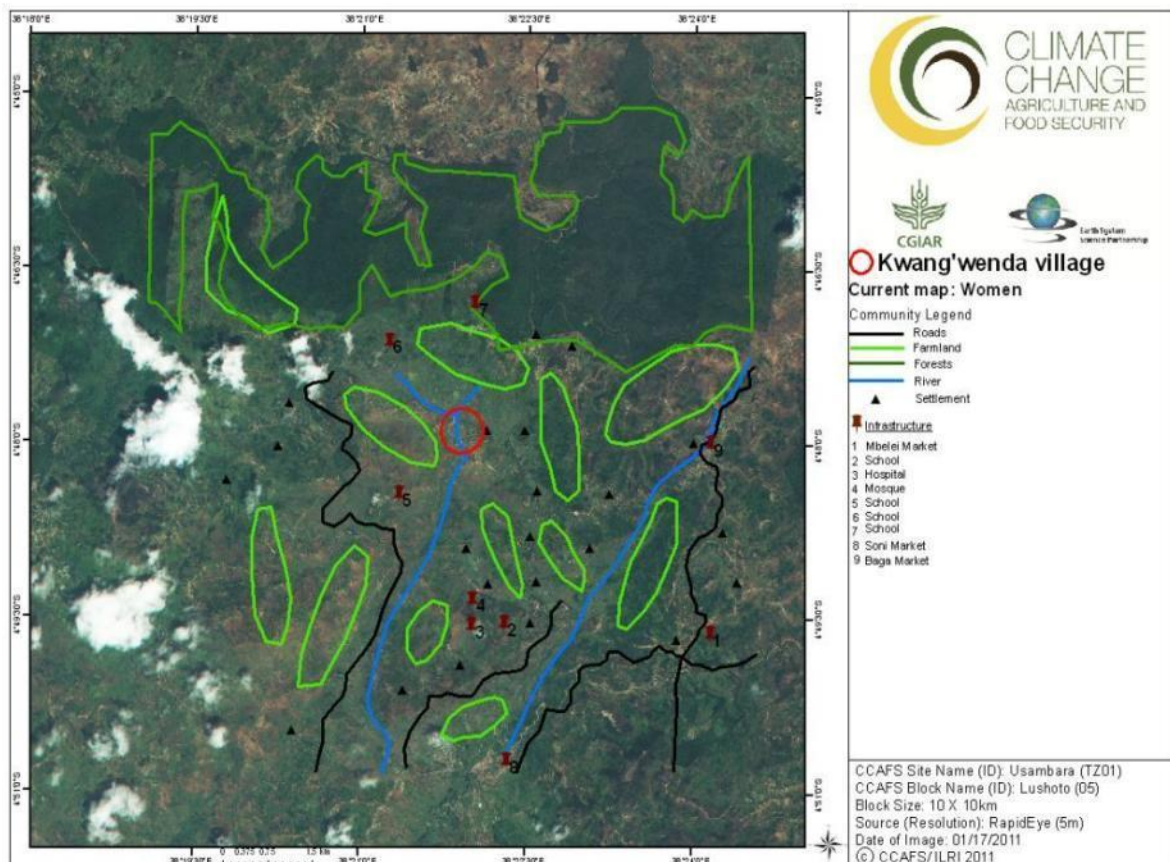
Photo 1. Community resources and infrastructure drawn on the map by men



Map 2. Men's map of current community resources



Map 3. Women's map of current community resources



Kwang'wenda village is located on a landscape with many steep sided hills. Land is managed both privately by individuals and communally by the village government. Farming is done on the hilltops, on the slopes and in the valleys. Crops such as maize, beans, vegetables and coffee are cultivated. The farm produce is used for both domestic and commercial purposes. The farmland shows soil erosion but there is no evidence of conservation efforts on the cultivated slopes and hilltops. Few farmers practice agroforestry or the use of structural soil conservation measures. The sources of water for farming are few. There is a general decline in soil fertility on farmland, and the yields are low.

There are forests at Baga and Kifungilo from which the community gets construction material and wood fuel both for sale and domestic consumption. The forest area has shrunk and is less dense, with some tree species becoming extinct, but the quality of the tree products obtained is still good. The government owns and manages the forests, and restricts the community access to forests products. The forests are relatively far away from the community and this also limits community access.

The main rivers in the community—river Mkuzu, river Ubiri and river Nyasa—run through the forest and are sources of water for domestic use, irrigation and livestock rearing. The rivers are also a source of sand. The water is generally clean but is sometimes contaminated by pesticides. During the rainy season the rivers flood and carry away crops that are planted by the riverside. Conversely, water supply is reduced during the dry season. The village government controls the river.

The main roads are Kidenya Migongo-Kwang'wenda; Nyasa-Kwang'enda; Soni-Kidenya Migogo; Kwang'wenda-Baga; Kwang'wenda-Soni; Kwang'wenda-Gare; Nyasa-Lwandai. There is only one tarmac road in the area. All other roads are loose surface roads. Most roads are narrow and have potholes, and very few of them are passable especially during rainy seasons. The village authority manages the feeder roads while the central government manages the tarmac road. There is a bridge at Mshizii that connects Kwang'wenda and Mshizii village. This bridge is managed by the village government and is currently in poor condition.

The children of Kwang'wenda village go to several schools in the area, including primary schools (in Kwang'wenda, Handei, Dindimo) and secondary schools (Gare, Kifungiro and Kongei). There has been an increase in the number of schools over the years, but most of the schools are dilapidated and poorly equipped. The schools are evenly distributed in the region. The local government manages most schools and the Catholic Church manages some.

Although the area is mostly rural, people tend to build homes in villages. There are several levels of urban settlements such as towns, markets and shopping centres in the region. They include Kifungiro, Soni, Mbelei, Nyasa, Mshizii, Boheloi, Kidenya Migongo, Mambasa, Masange, Kwelushaga, Mmanyai, Dule, Magamba, Soni, Lushoto, Mshizii, Baga and Gare. Urban centres provide places of social interaction, sources of information, shelter and agricultural entrepreneurship. All these centres have a higher concentration of human population than the rural settlements. They have grown in size over the years due to population increase that has led to greater demand for goods and services. The urban centres also provide an outlet for agricultural goods produced locally and create employment. The local authorities/village authorities manage them.

There are many mosques in the region because the dominant religion is Islam. The mosques are located at Pangai, Kizara, Shazilia, Tongoi, Kweshiliu and Misalu. They are used for praying, social interaction and education. Each mosque has a Madrasa (Islamic school) attached to it. There are also several churches to which the Christian community goes. They include Kwang'wenda and Gare. The churches are used as places of worship, social interaction and business.

Table 1 summarizes the state of current resources as perceived by men and women.

Table 1. Summary of current situation as perceived by men (M) and women (F)

Land cover class	Community determined land use	Location Names	Current state (quality)	Time to resource	Management and ownership issues	Environmental Benefits	Opportunities	Limitations
Forest (M)	Construction wood for sale and building	Baga	Good quality of trees but forest is not as dense or extensive as before. Some species are extinct.	3 hours walking	Government owns and controls the use of forests	Improved soil fertility, "source" of rainfall. Water catchment area.	Timber, poles for sale and construction	Government regulations
Forest (W)		Baga and Kifungilo			Government-controlled	Source of River Nyasa/Ubiri and River Mkuzu	Protection of water resource	Far from the village
River (M)	Source of water for irrigation and livestock	Mkuzu	River reduced in size. Clean for drinking but also contaminated by pesticides from farms.	30 minutes walking	Village authority. Controlled use		Self-employment through horticulture on the river banks	Limited availability of water during dry season
River (W)	Source of water and sand	R. Mkuzu, R. Nyasa/Ubiri	Water level has gone down, dirty water	1 hr	Controlled by village government		Money from sale of sand, building materials, water for irrigation and domestic use	During the dry season the water levels go down, floods carry away crops cultivated along the river
Farmland (M)	Maize, beans, vegetables, trees, coffee		Declining soil fertility		Private and communal, controlled by village authorities		Self-employment	Steep slopes



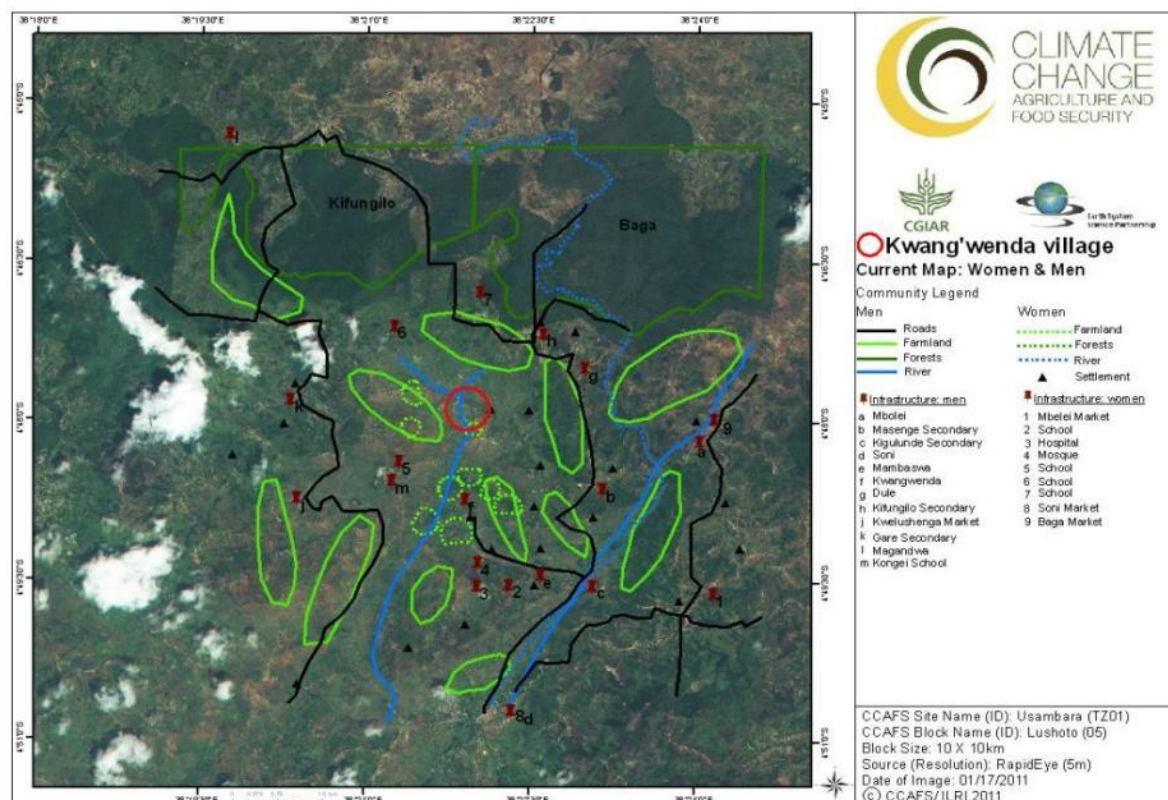
Land cover class	Community determined land use	Location Names	Current state (quality)	Time to resource	Management and ownership issues	Environmental Benefits	Opportunities	Limitations
Farmland (W)	For growing horticulture and food crops	Hill tops and valley bottoms	Soil erosion on the lands, few water source, poor farming methods, low yield. Few farmers practise agro-forestry, use of biological measures.	15 -30 min	Private, controlled by village government		Grow food for domestic and for sale, pasture, firewood	Small farm size, low soil fertility
Roads (M)		Kidenya Migongo-Kwang'wenda, Nyasa-Kwang'wenda, Soni-Kidenya Migogo.	Very few roads are passable especially during rainy seasons. They are narrow and have potholes. Feeder roads have no tarmac.		Feeder roads managed by village authority, and tarmac roads by central government.		Transport of goods to the markets	
Roads (W)		Kwang'wenda-Baga, Kwang'wenda-Soni, Kwang'wenda-Gare, Nyasa-Lwandai	Poor condition	20 min	Villagers, controlled by village government		Transport	Some areas are difficult to pass during rainy season
School (M)		Kwang'wenda, Gare, Kifungiro, Kigulunde, Kongei	Dilapidated and inadequate infrastructure	1 hour walking	Government and Catholic Mission			Some schools are far from the village
School (W)		Handei Pri., Kwang'wenda Pri., Dindimo Pri., Gare Sec., Kongei Sec., Kifungilo Sec.	Increase in number of schools, which are evenly distributed but in bad condition		Under local government		Education, social interaction	School structures in bad condition
Centres (M)		Kifungiro, Soni, Mbelei, Mshizii, Boheloi, Kidenya, Migongo, Nyasa, Mambasa, Masange, Magamba, Kwelushega, Mmanyai, Dule	Improving due to population	15 minutes walking	Village authorities control the centres' use		Markets for goods. Employment	Poor roads

Land cover class	Community determined land use	Location Names	Current state (quality)	Time to resource	Management and ownership issues	Environmental Benefits	Opportunities	Limitations
Bridge (W)		Mshizii	Poor condition		Village government		Connect Kwang'wenda and Mshizii villages	It is in a poor condition
Settlement (W)			It is expanding		Household		Social interaction, source of information. Shelter, cowshed.	
Markets/ Shops (W)		Soni, Lushoto, Mshizii, Baga, Gare	An open market, clustered shops	3hr walking	Owned by the village		Economic activities	Poor road condition, high inputs price, low prices for their products
Mosque (W)		Pangai, Kizara, Shazilia, Tongoi, Kweshiliu, Misalu			Muslims		Praying, social interaction, business	
Church (W)		Kwang'wenda, Gare			Christians		Praying, social interaction, business.	

## B. Gender-differentiated comparison of current conditions

Map 4 below compares the current resources identified by male and female participants. The women were familiar with resources that were closer to the village and could describe them in detail. They were less familiar with resources found far from the village. There were similarities in the findings of the men and women on most the major community resources in term of use, quality, management and limitations with minor differences, as will be indicated below.

Map 4. Overlay of current conditions, comparing men's and women's maps



The views of men and women on the benefits from the forest were not the same. Women associated forests with protection of water sources while the men associated them with production of timber, poles and other material for sale and construction. The women considered the distance to the forest a limiting factor in accessing the resource but the distance to the forest did not discourage the men. Only the women identified small farm size as a constraint to farming. In general, women identified more sources of water than the men, but men identified pesticides as a source of water contamination. The women identified more aspects of infrastructure related to welfare compared to men. They included churches, mosques, human settlements and a bridge.

## C. Major changes of resource conditions

Participants were asked to consider the resources they had in their community, consider the history of land use, and identify major changes that had occurred in the landscape in the past 10 years. In addition, participants were to examine how the resources got to the current condition and the major drivers of those changes; as well as the opportunities and constraints into the future. In the following pages the results of those discussions are summarized both on maps traced on top of the satellite images for the village (Maps 5 and 6), and Table 2 that includes the major changes and drivers of change, as perceived by male and female participants.

Male and female participants indicated that the density of the forests has been reduced. There were also more and bigger trees along the riverbanks in the past. Hence, the rivers were bigger and the water was cleaner. Population growth has led to an increase in the demand for forests products and an

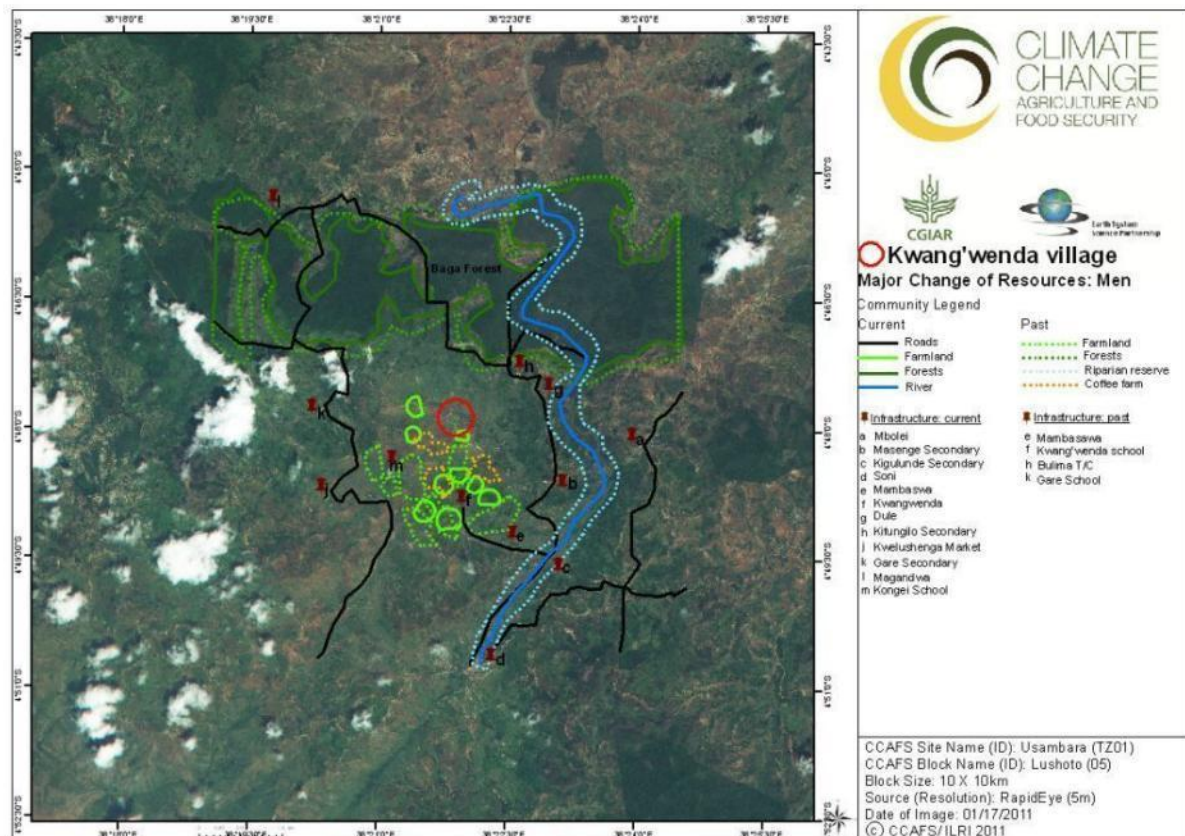
expansion of agriculture at the expense of the forest areas, resulting in increased levels of resource exploitation and soil erosion.

In the past the area under cultivation was smaller than it is today, the soils were more fertile and the yields were higher. Cultivation along the riverbank and direct watering of livestock in the river have reduced riparian vegetation and made the riverbank more susceptible to agents of erosion/degradation. The Colonial government had imposed restrictions on the use of the river and the riparian area in the past. However with the advent of independence these restrictions were removed and there was open access without regulation of use of the river and surrounding area.

Ten years ago there was only one village. Due to population growth, the village was later divided into two, which created a need for more roads to link the new villages. Previously there were very few roads. Only one road was wide and in good condition. Footpaths were the common routes for travellers. Today there are more feeder roads, but they are overused and poorly maintained. In addition, the cultivation alongside roads compromises drainage and hasten the roads' deterioration.

There were fewer schools but they provided good quality education and had good buildings. Today there are more schools but the quality of education has deteriorated.

Map 5. Major changes in resources (comparing past and present) for men





Map 6. Major changes in resources (comparing past and present) for women

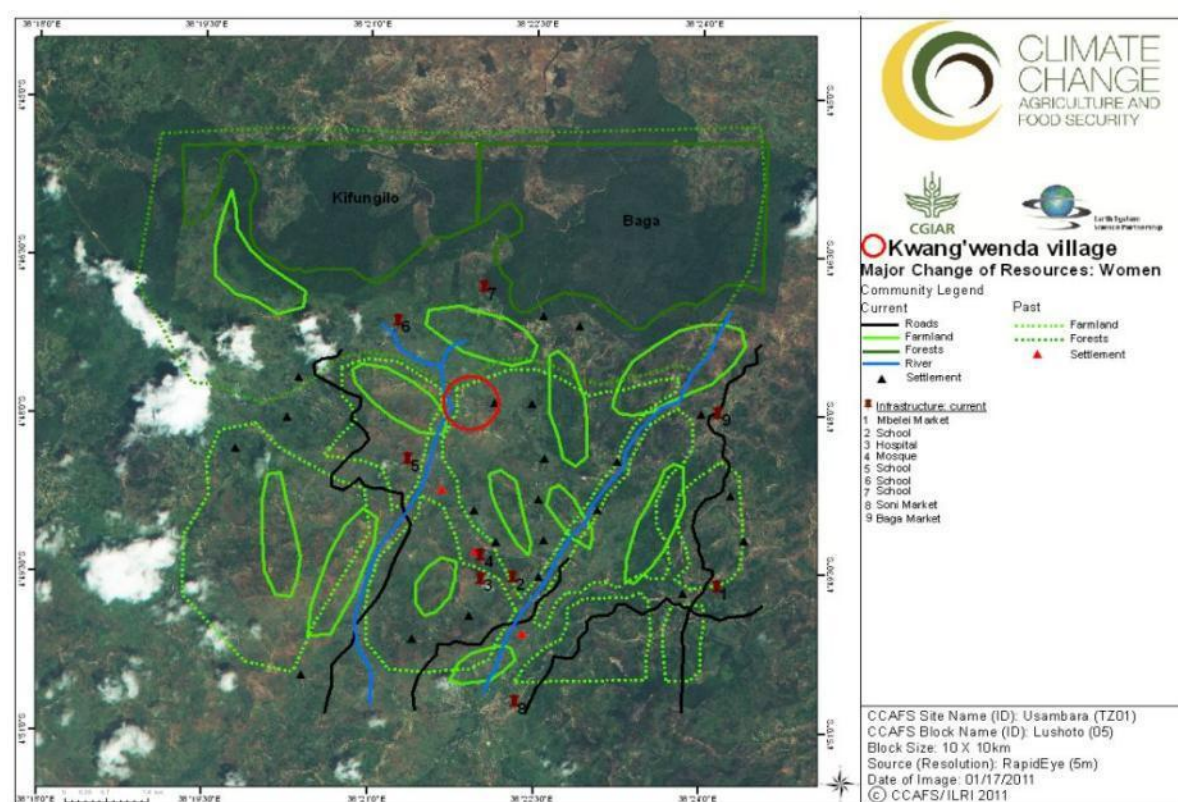


Table 2. Major changes and drivers of change in the last 10 years, as perceived by men (M) and women (F)

Land cover class	Past state (quality)	Drivers of change	Management and ownership issues	Environmental Benefits
<b>Forest (M)</b>	Denser with more tree species.	Population explosion, encroachment for settlement and farming. Forest fires, firewood, charcoal burning, poles and timber	Government-owned and regulated	Rainfall, improved soil fertility
<b>Forest (F)</b>	Thicker.	Population growth, encroachment	Central government	Source of rivers, attracts rainfall, conserves water and soils (but women do not use it as it is too far)
<b>River (M)</b>	Bigger, cleaner water	Ploughing to riverbanks		Source of water for riverine trees
<b>River (F)</b>	Trees along the river banks	Cultivation along the river, low rainfall	Villagers	
<b>Riverine (M)</b>	Dense riverine vegetation	Cultivation in riverbanks. Watering of livestock directly into the river	In the past, colonial government put restrictions on use. It is not controlled now	

<b>Land cover class</b>	<b>Past state (quality)</b>	<b>Drivers of change</b>	<b>Management and ownership issues</b>	<b>Environmental Benefits</b>
<b>Roads (M)</b>	Only one road, wide and in good condition	Overuse, cultivation on the road reserves	Maintained by missionaries in past, village government now	
<b>Roads (F)</b>	Few, footpaths	Split of villages, needs to maintain linkages	Village government	
<b>Schools (M)</b>	Good quality in education and buildings	Change of ownership and management	Owned and managed by Catholic Mission	
<b>Settlements, village (F)</b>	Two villages only	Population growth	Village government	
<b>Farmland (M)</b>	High soil fertility. Coffee, trees, bananas	Population growth, deforestation. Poor farming practices	Colonial governments had restrictions on use	
<b>Farmland (F)</b>	Dark fertile soils, large area, high yield from the farms (maize, bean and napier)	Soil erosion, population increase, deforestation, poor farming practices	Villagers	

Women did not use the forest because it was too far. They needed the forest primarily as a source of wood fuel and this they could obtain from places closer to the village. They, nonetheless, valued the forest as a source of the rivers and streams that they used. The men associated the forest with rainfall. Both men and women identified cultivation of the riverbank as a driver of change in the riparian area but only the men identified livestock watering in the river as a driver of change.

Men and women identified similar drivers of change in relation to farming. They agreed that ultimately the need for more agricultural produce was the main driver of change on the landscape. There is pressure to produce more even at the expense of the integrity of the environment, e.g. cultivation of the riparian area and the steep slopes without corresponding conservation measures.

The men identified the role of the missionaries in opening up roads and maintaining them in past. The management of the roads is now in the hands of the village governments. Change of ownership and management of schools is a driver of change. The earlier schools were owned and managed by Catholic Missionaries.

#### **D. Vision of the future**

With a mixed group of men and women, the goal was to develop an image of village resources and human wellbeing into 2030 to understand the opportunities and constraints, as well as aspirations for the future. This exercise built upon all the work completed in the previous sessions. In addition, the exercise took into account the photographs of the landscape, including things they are proud of and things that need to be improved upon in the future, that a group of young people had produced following instructions given on day 1.

In the section below we include the map that encapsulates Kononga village's vision of the future (Map 7). We also include a few of the photographs taken by the youth. These images operationalize the collective vision of the future.

Map 7. Future map of the community

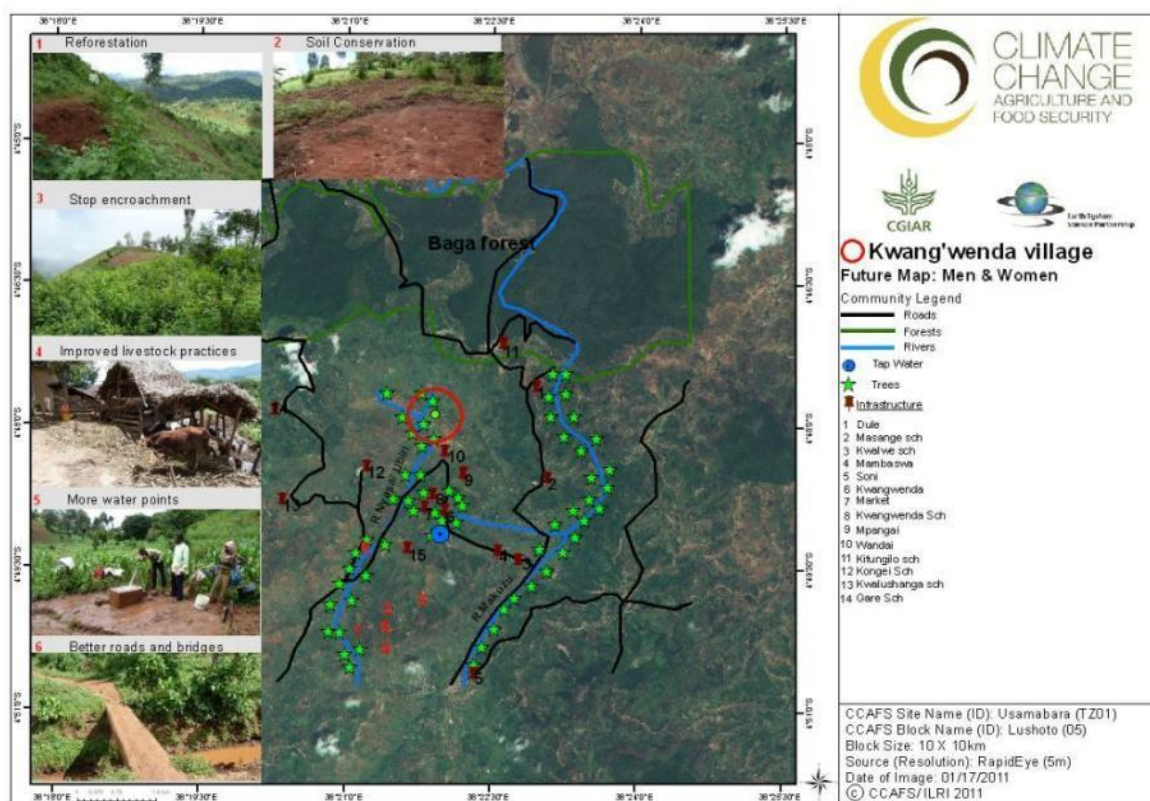


Table 3. Vision of the future

Resources	Preferred condition for 2030	Opportunities	Constraints	Organisations to be involved
Forest	Extended by planting more trees and reporting loggers to the village leaders	Timber for sale, honey and medicinal trees.	Loggers	Central and local government
Rivers	With riverine vegetation and clean water	Self-employment through irrigation for horticulture	Lack of strict laws to protect river bank	Ushirika* and local government
Farmland	Agroforestry system	Increase farm productivity	Lack of strict laws to govern farmland use	Ushirika and local government
Roads	Improved by widening the roads within the village	Transportation of goods and services	Lack of coordination among the villages. Lack of strict laws to protect the roads reserves	Local Government
Schools	Establish two more schools and upgrading existing ones	More people will be educated in the villages	Limited funds	Local government and missionaries
Bridge	Motorable bridges	Transport of goods and services between villages and to the markets	Limited funds and lack of coordination among villagers and local government	Ushirika and local government

\* Ushirika denotes the community. It is a Swahili word that means cooperation, community, and partnership.



Men and women see forests as opportunities, albeit from different perspectives. For men forests represent possibilities of trade in forest products such as timber and other construction materials. Meanwhile, women are interested in having regular access to water resources, which they perceive as dependent on the protection of the forests. The men view government regulation on access to the forests as a limitation. While the women view the distance to the forest as a limitation.

The men perceive that horticulture along the riverbank provides an opportunity for self-employment. The women, on the other hand, consider the sale of sand as an additional source of income. Flooding during the rainy season is a limitation to cultivation in the flood plain because crops are washed away.

The men view the ability of the land to support a wide diversity of crops such as maize, beans, vegetables, trees and coffee as an opportunity. The women view farmland in slightly broader terms, i.e. as allowing them to grow food, feed their livestock and gather wood fuel, all on the same landscape. The women, however, view the small farm size and low soil fertility as a constraint.

The roads present an opportunity because they are used to transport of goods to the markets, yet some roads are in poor conditions and are difficult to pass during rainy season. Likewise, the bridge connecting Kwang'wenda and Mshizii village is considered an opportunity, but the poor condition of the bridge is a limitation.

For men, the towns and markets are an opportunity because they are outlets for agricultural produce, source of goods, services and employment. The poor conditions of roads linking the centres are considered a limitation.

## Topic 2: Organisational landscapes

This topic aims to show evidence of organisational capacities that help address food security and manage natural resources. This will inform CCAFS about how prepared the village is to respond to the challenges envisaged as a consequence of climate change or other future challenges and to engage with CCAFS partners at a collective level.

Specifically, this section presents the different formal and informal organisations involved in the community in general terms, as well as with respect to food security in different situations (i.e. average and crisis conditions), and natural resources management (NRM). It also elaborates on what types of activities the organisations are engaged in, who their members are, whether the organisations are useful, etc.

### A. Basic spheres of operation

Participants were asked to draw three large concentric circles on the ground. The inner circle would represent the community, the middle circle the locality and the outer circle beyond the locality. Participants were then asked to name organisations working in the area, whose names were written on cards, and place the cards in the appropriate circle. Thus, the cards placed in the inner circle were organisations that worked in the community, in the middle circle the cards of organisations operating in the locality, and in the outer circle those that operated beyond the locality. An example of the exercise as carried out during the study is shown in Photo 2. The results are shown in the images that follow.

Photo 2. The organisational landscape activity in progress



Figure 1. Organisational landscape of the men's group

**Legend**

- 1 Usambara Coffee Cooperative
- 2 Ministry of Health
- 3 Ministry of Agriculture/Livestock
- 4 German –funded NGO/ KKT water
- 5 SECAP
- 6 LIDEP
- 7 Ministry of Education
- 8 Masonry group
- 9 National Microfinance Bank
- 10 Heifer International
- 11 Germany funded NGO/KKT education
- 12 Ushirika/ Mshikamano
- 13 Roman Catholic Mission
- 14 Red Cross
- 15 World Food Programme
- 16 Tanga Regional Cooperative Union
- 17 KKKT
- 18 Lutheran Church

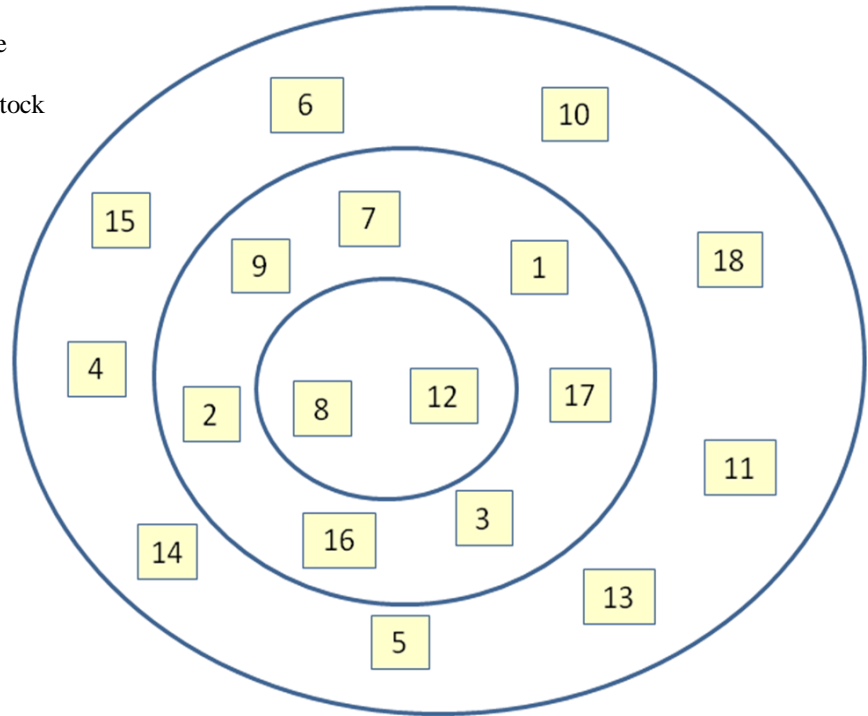
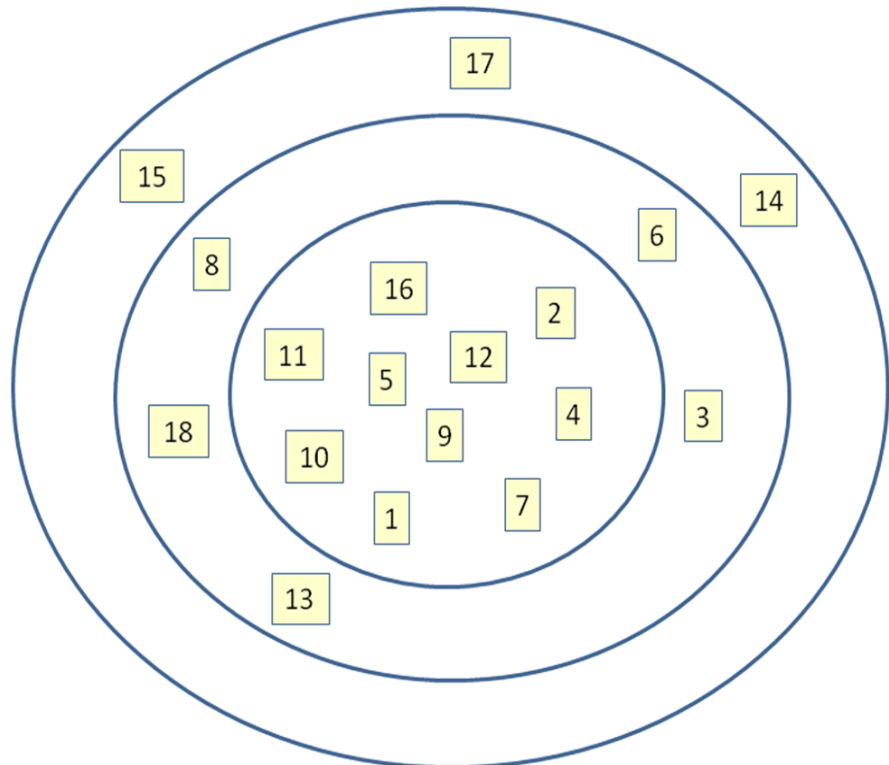


Figure 2. Organisational landscape of the women's group

**Legend**

- 1 Mradi wa Maji
- 2 Kwaya Kuu
- 3 Ministry of Health
- 4 Watoto Wanaoishi Katika Mazingira Magumu
- 5 Welfare
- 6 Ministry of Agriculture
- 7 Tasaf
- 8 Kibati
- 9 Mradi wa Kuku
- 10 Tarumbeta
- 11 Safina
- 12 Madrasa
- 13 BRAC
- 14 Red Cross
- 15 Central Government
- 16 Local Government
- 17 Lutheran church
- 18 JBG



The discussion groups identified 32 organisations/groups in total. Men identified 18 groups and the women identified 18 groups. The men's and women's groups jointly identified the Ministry of Health, Ministry of Agriculture, Red Cross, and Lutheran Church. The organisations were placed in three

categories, namely those working only within the community (within the village), those working within the locality (within the district) and those working beyond the locality (beyond the district). The spread of the organisations among these three spheres was well balanced. In general 38% of the groups that men and women identified operated within the community, 31% operated within the locality and 31% operated beyond the locality. The breakdown by sex, however, shows a different picture. Men were better informed about (and likely connected with) groups that operated beyond the locality while women were more informed about groups that operated within the community. Of the 18 groups identified by men, 11% operated within the community, 39% within the locality and 50% beyond locality. Of the 18 groups identified by the women, 56% operated within the community, 28% operated within the locality and 17% operated beyond the locality.

The organisations engaged in a wide range of activities. These include provision and distribution of food, water, agricultural extension, human health services, environmental health services, educational support, business loans to women, and relief food during crisis and welfare services, in general. In addition, the organisations promote dietary diversification, help the destitute, engage in capacity building in poultry projects, and promote environmental conservation, including tree planting, protection of rivers, soil and water conservation. An analysis of the activities of groups/organisations identified by men and women revealed that most organisations (67% and 87%, respectively) addressed social issues and economic matters (25% and 47%). Only a minority (8% and 13%) addressed environmental issues.

Women engaged with very local small groups that were mostly informal groups. They had very little information about organisations working beyond their village.

In Tables 4 and 5, more detailed information is provided on the five organisations that the men's and women's groups ranked as "most important".

Table 4. Information on the first five organisations ranked by the men

Organisation name	Main activities	Number of members (estimate)	Access (open or restricted to...)	Origin (indigenous, state, NGO, project)	Sphere of operation: community, local, beyond local	For community groups		
						Sources of funding (members, external, both)	Existed how long (less than 1 year, 1-5, longer)	Formal or informal
1 German-funded NGO/KKKT-water		30,000	Open	NGO Project	Beyond local	Both	Longer	Formal
2 Ministry of Health	Provision of health services		Open	State	Local	Both	Longer	Formal
3 Ministry of Agriculture/Livestock	Provides subsidized maize/flour during times of famine e.g. at Tshs. 3,500 instead of 6,000. It buys food from farmers, stores it, then sells it to them during food unavailability. Ensures availability by supporting production by giving farm inputs like seeds and also via post-harvest storage. Agricultural extension services to farmers		Open	State	Local	Both	Longer	Formal
4 Ministry of Education	Provision of education		Open	State	Local	Both	Longer	Formal
5 National Microfinance Bank (NMB)			Restricted	State-Private	Local	Both	1-5 years	Formal

Table 5. Information on the first five organisations ranked by the women

Organisation name	Main activities	Number of members (estimate)	Access (open or restricted to...)	Origin (indigenous, state, NGO, project)	Sphere of operation: community, local, beyond local	For community groups		
						Sources of funding (members, external, both)	Existed how long (less than 1 year, 1-5, longer)	Formal or informal
1 Mradi wa maji	Provides water to the residences	9	Restricted to members who have paid the fee of Tsh 8,000	NGO	Community	Both	1-5 years	Formal
2 Kwaya kuu	Singing in church, weddings, and burial services. Looks after widows. Practices crop farming.	30	Open to both men and women	Indigenous	Community	Members	Longer	Informal
3 Ministry of Health	Immunization, inspection of village to guarantee clean and healthy environment. It distributes to men ivermectin tablets to control <i>usubi</i> (onchocearciasis)		Open to all the residents	State	Local	External	Longer	Formal
4 Watoto wanaoishi katika mazingira magumu	Provides clothes, food, and money to destitute children		Restricted to needy children between 5-18 years	State	Local	External	Longer	Formal
5 Welfare	Assists during funeral services by providing flour, sugar, TSH 200 to the deceased family		Open to both Muslims (ubani) and Christians (sanda)	Indigenous	Community	Members	Longer	Informal



## B. Organisational landscape of food security

The goal of this exercise was to get an improved understanding of how the organisational landscape contributes to the food security of the group. Food security is mostly measured at the household level. Nonetheless, community-level organisations and interactions influence the food security of different groups within the community differently. Male and female participants were asked to discuss the concepts of food availability, access and utilization, and then review each organisation they had previously identified by asking which of them had activities that fell under these categories.

A total of 22 organisations (roughly 69% of all the groups identified) were involved in food security issues. The men identified 13 groups/organisations involved in food security while the women identified 12. Close to 90% of the groups involved in food security addressed issues of food availability, while 32% and 21% addressed, respectively, food access and food utilization. Both men and women said that the groups engaged in capacity building/training. Men and women participants also indicated that there is not much collaboration in relation to food security at the community level, which is far from the ideal situation for addressing food security.

Figure 3. Organisational landscape of food security – men

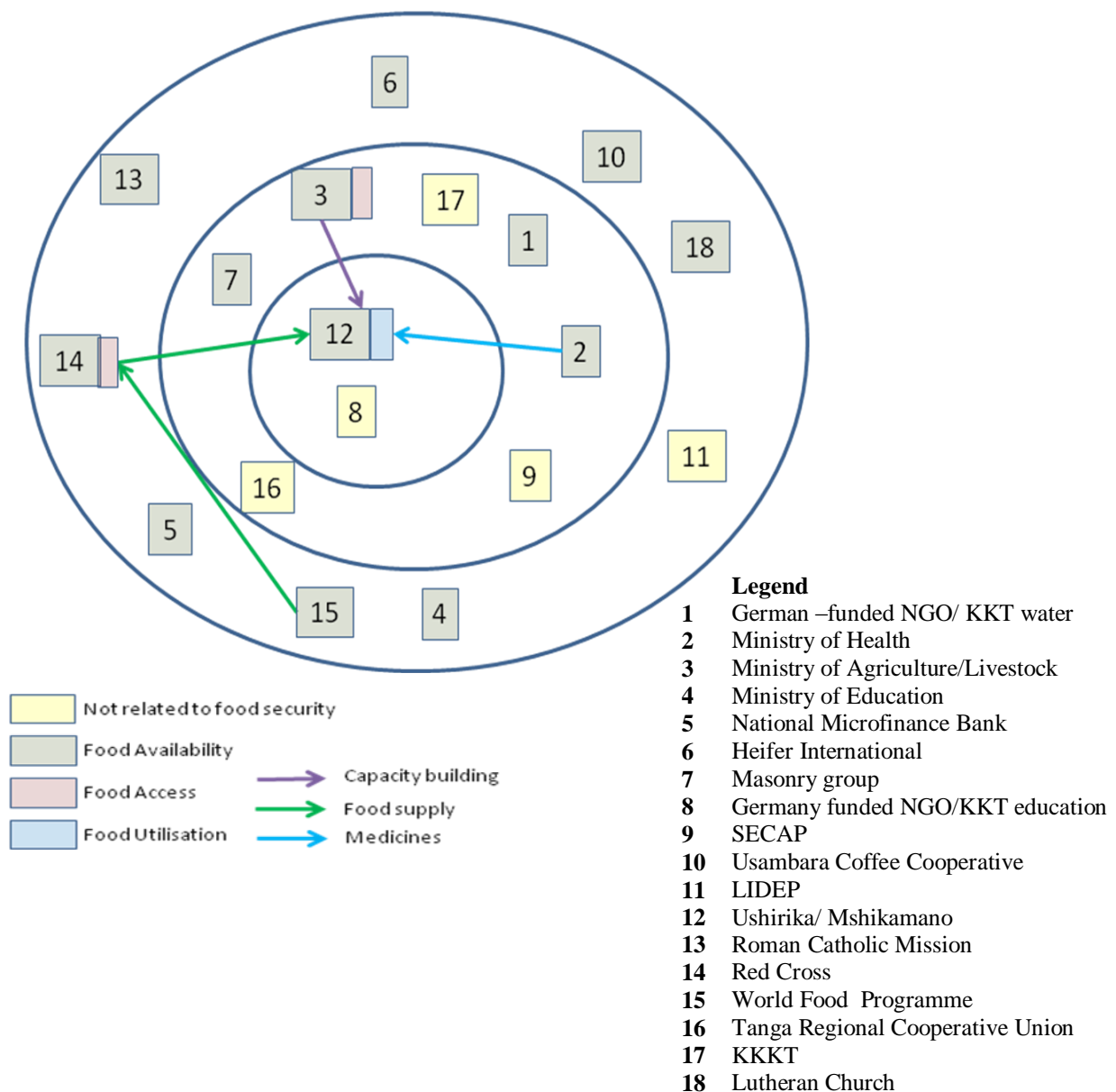
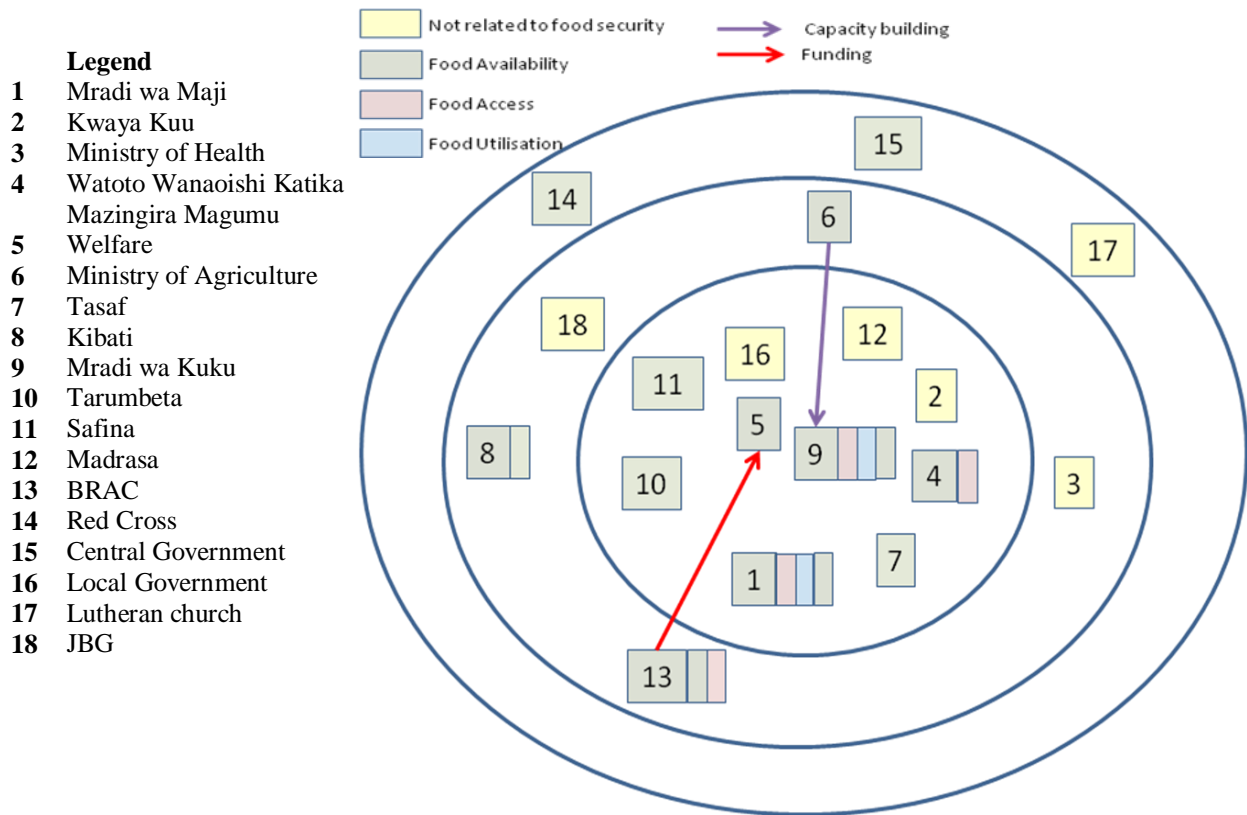


Figure 4. Organisational landscape of food security – women



### C. Organisational landscape of food crisis situations

The purpose of this exercise was to understand how organisations help people to cope in times of food crisis. Participants identified a food crisis situation that they all remembered (e.g. a bad year or the lean season), and discussed how the organisational landscape of food security operated in that situation.

It emerged from the discussions that the community is increasingly facing frequent episodes of food crisis primarily because their farm produce is drastically reduced and most households can no longer feed themselves for the 12 months of the year. They consider the community in crisis when the children go to school without having had a meal. Men identified 5 (28%) organisations that addressed food crisis while the women only identified 3 (16%). During times of food crisis there are linkages that exist between the groups/organisations involved in addressing the crisis.

Figure 5. Organisational landscape of food crisis – men

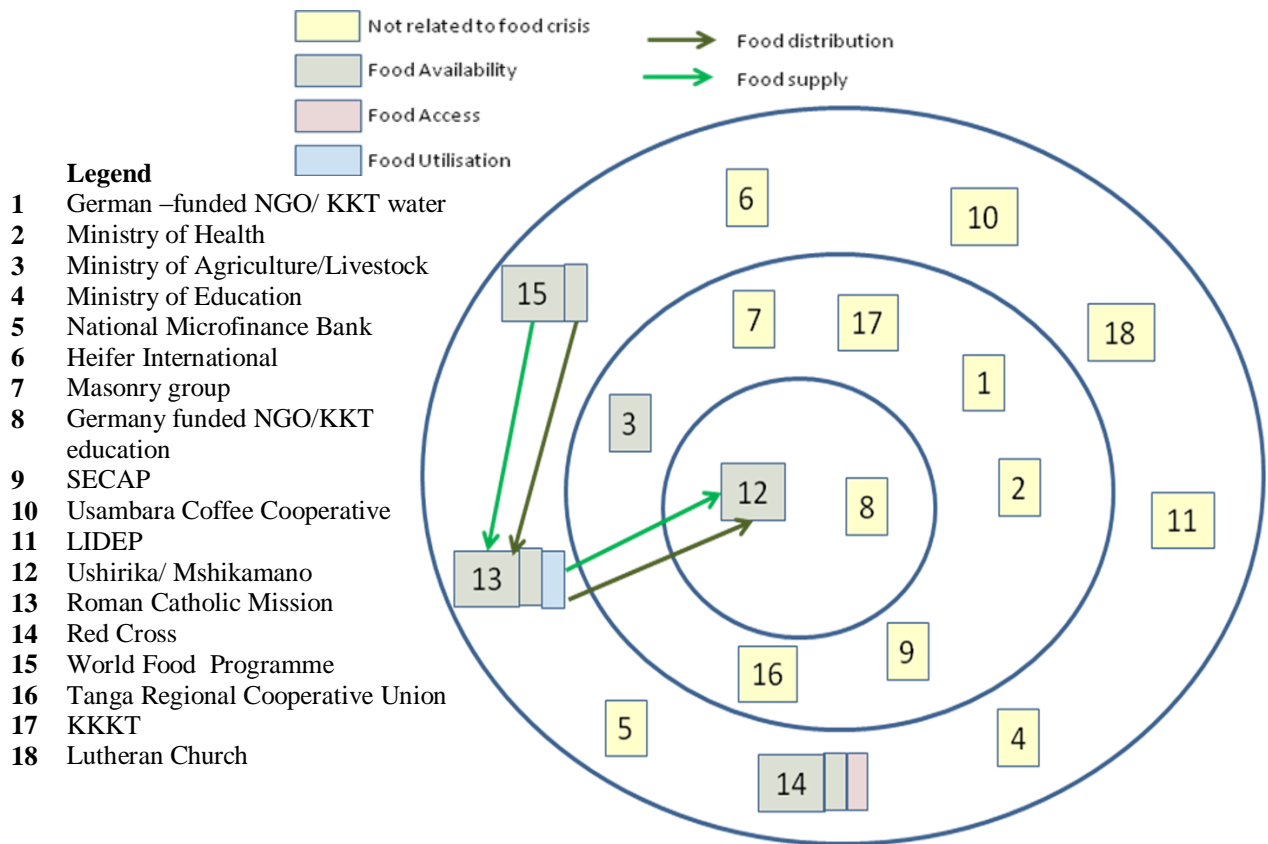
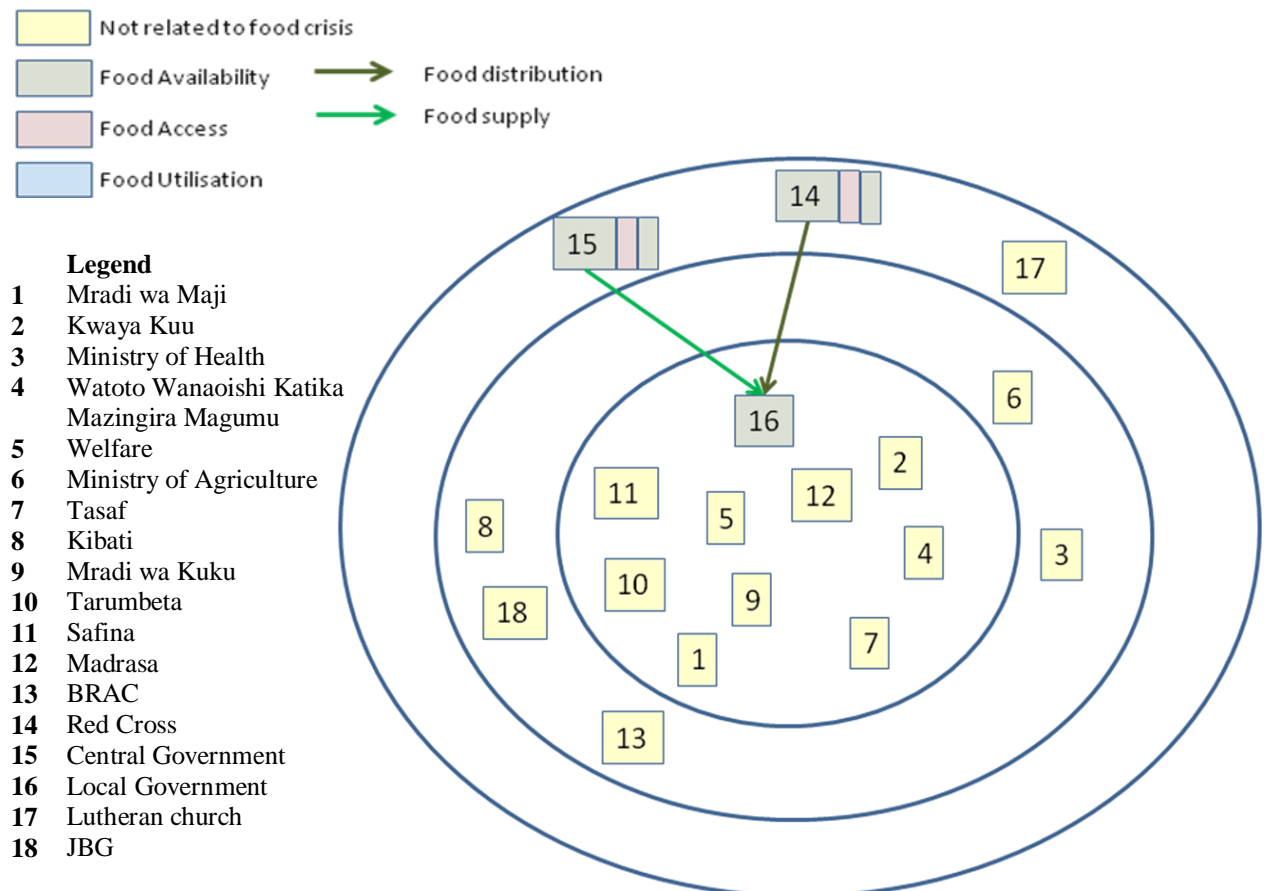


Figure 6. Organisational landscape of food crisis – women



## D. Organisational landscape of natural resource management

In this section, the organisational landscape in relation to natural resource management (NRM) was discussed. The process entailed asking the group to highlight what organisations are involved in the management of natural resources in the community; developing a list of natural resources important to the livelihoods of the community; and asking the group to decide on a symbol for each type of natural resource listed.

The men identified 4 organisation engaged in natural resource management. Only 1 of them operated within the community. The women identified 7 groups/organisations that addressed natural resources, 2 operating beyond the locality, 2 operating within the locality and 3 within the community. Many actors at the community level are an indicator of a high level of community participation in natural resource management. This improves adoption and sustainability of interventions. Actors beyond the locality are often organisations with significant financial and technical capacity who can therefore contribute to building the capacity of local groups /organisations and contributing to resources mobilisation.

Figure 7. Organisational landscape of NRM – men

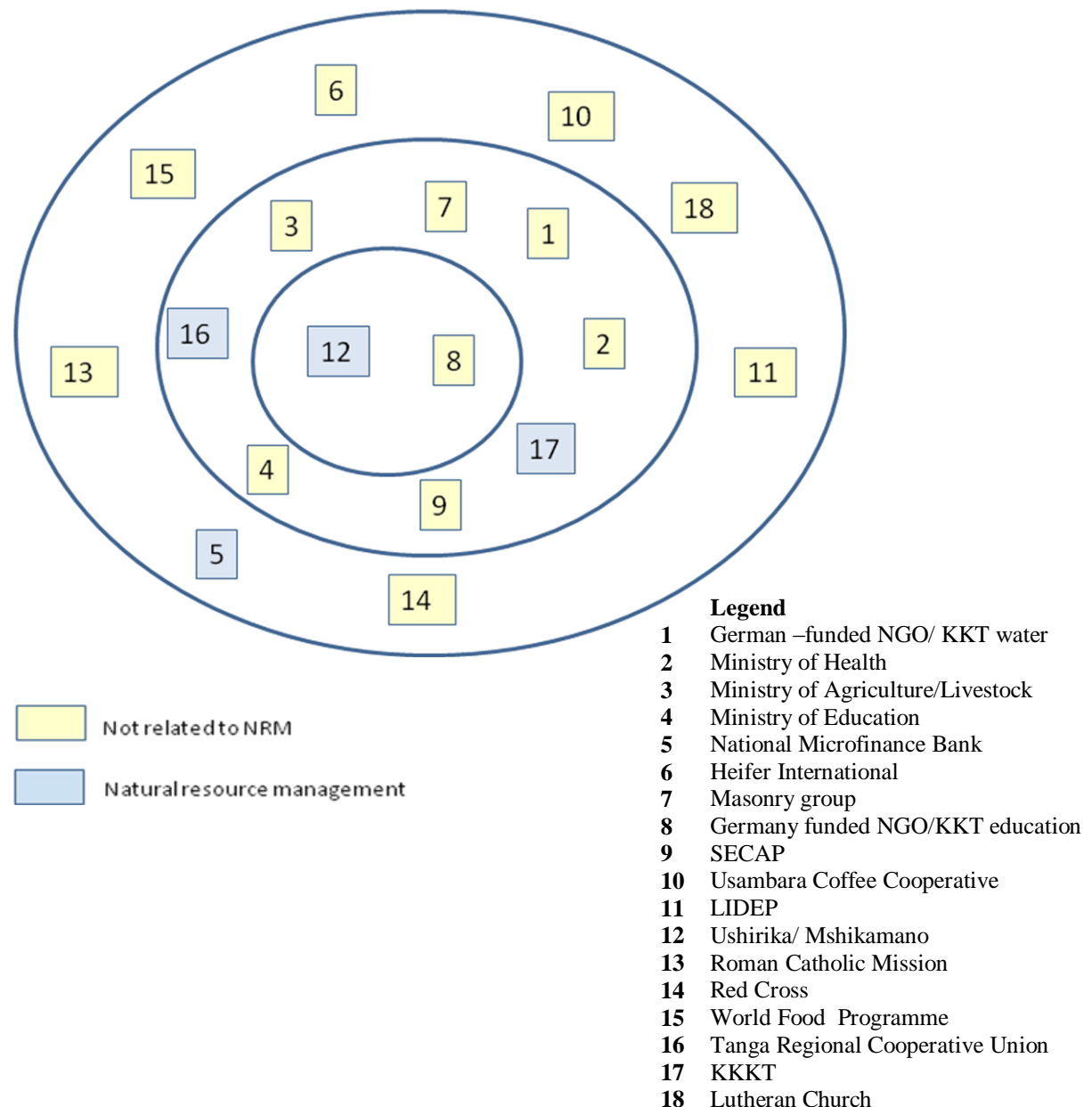
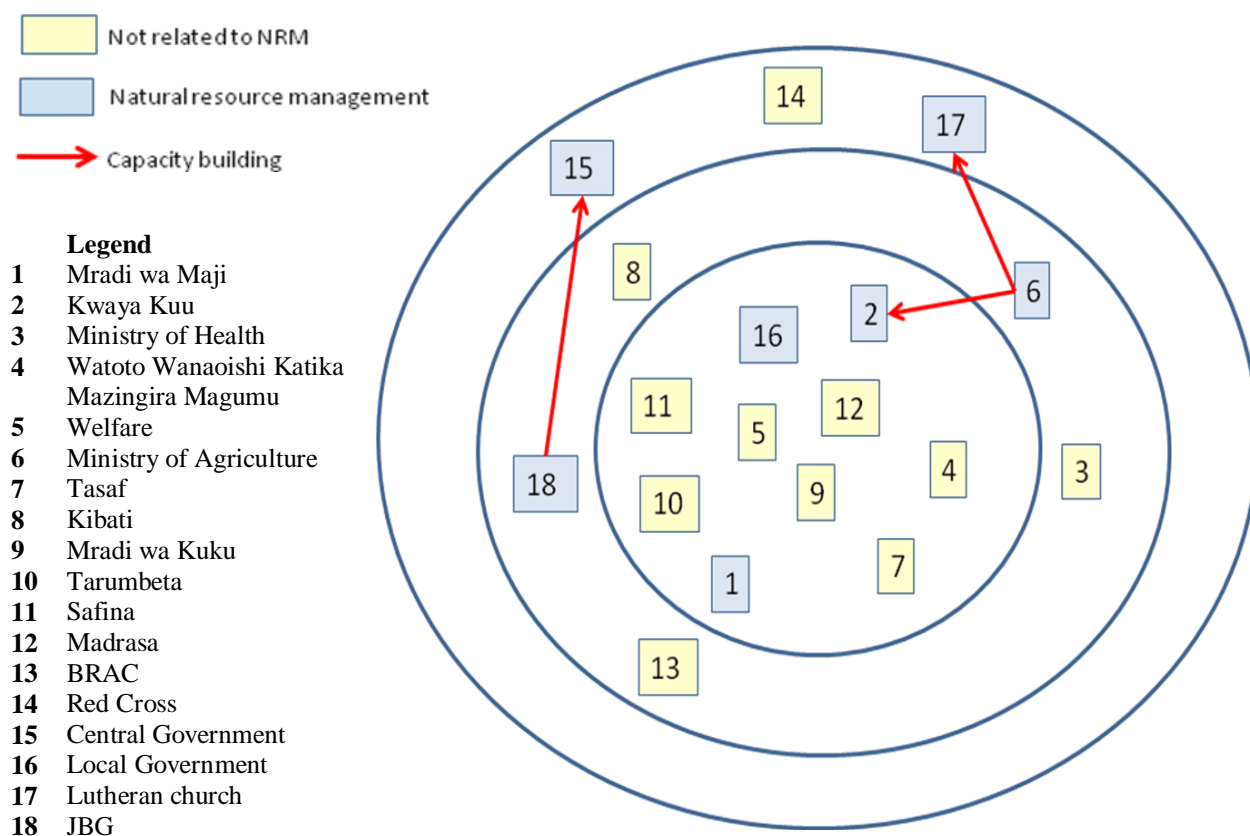


Figure 8. Organisational landscape of NRM – women



CCAFS may want to target a few organisations as potential partners (Table 6). The organisations operating outside the locality tend to have more capacity to mobilise resources, but the local organisations have the capacity to mobilise the community to work towards given directions. The Ministry of Agriculture has constant interaction with the community but its resources are restricted to addressing government priorities. Tanga Regional Cooperative Union (TARECU) is a regional government agency covering the area and has capacity to mobilise resources. Finally, Kibati and Ushirka Mshikamano are local groups with potential to engage large numbers in the community. However this can only happen if the capacity of the groups is built beyond the current levels.

Table 6. Potential CCAFS partners

ORGANISATION	SPHERE OF OPERATION	ACTIVITIES	STRENGTH
Ministry of Agriculture	Beyond locality-National	Food security	Resource and community mobilisation
Tanga Regional Cooperative Union (TARECU)	Beyond locality-Regional	NRM and food security	Resource Mobilisation
Kibati	Community	Food security	Community mobilisation
Ushirika Mshikamano	Community	Food security	Community mobilisation

The groups/organisations in Kwang'wenda village have potential to implement many interventions but they are resource poor. The groups are mostly engaged in activities that address social issues such as provision of basic human needs and support to the vulnerable. Their economic gains are minimal. Much more could be achieved if groups were empowered and able to improve their farm production

and food availability. More than half of the organisations engage in food security issues. Hence, enhancing their capacity has potential to make an impact on the food security situation. Also training on group formation and group dynamics to enable them mobilise their resources more broadly is critically important. The community needs to develop more horizontal links, which currently are few, to strengthen community cohesion via a network of organisations that together contribute to enhancing impact. There are no groups/organisations that bring the whole community together but there are groups with potential to do so.

When CCAFS considers engaging in partnership arrangements, it should give priority to local community groups with potential to be around for a long time, and to external organisations that are committed to building coalitions that result in greater impact for the area. Some organisations are in the region for only as long as they have a project. For instance many of the groups identified by the women at the community level are actually groups that coalesce around a project, e.g. Mradi wa maji, Mradi wa kuku, etc. Once the project support is withdrawn some of the groups lose the capacity to hold together. When the projects end they leave. It is also important to note that many gains could be achieved by linking new and old initiatives but in fact most organisations operate completely independent from each other. They have come to the area and addressed only issues that were in line with their project objectives without making any attempt to find out which other organisations are already operating in the region.

Table 7. Information on all the organisations identified by male and female participants (1 = yes, 0 = no)

	<b>Organisation name</b>	<b>Identified by men</b>	<b>Sphere of operation</b>	<b>Food security</b>	<b>Food crisis</b>	<b>NRM</b>	<b>Identified by women</b>	<b>Sphere of operation</b>	<b>Food security</b>	<b>Food crisis</b>	<b>NRM</b>
1.	German-funded NGO/KKKT- water	1	Beyond locality	1	0	0					
2.	German-funded NGO/KKKT- education	1	Beyond locality	0	0	0					
3.	Masonry group	1	Community	0	0	0					
4.	Ministry of Health	1	Locality	1	0	0	1	Locality	0	0	1
5.	Ministry of Agriculture/Livestock	1	Locality	1	0	0	1	Locality	1	0	0
6.	Ministry of Education	1	Locality	1	0	0					
7.	National Microfinance Bank (NMB)	1	Locality	0	0	0					
8.	World Food programme	1	Beyond locality	1	1	0					
9.	Roman Catholic Mission	1	Beyond locality	1	1	0					
10.	Red Cross	1	Beyond locality	1	1	0	1	Beyond locality	1	1	0
11.	Tanga Regional Cooperative Union(TARECU)	1	Locality	0	0	1					
12.	SECAP	1	Locality	1	0	1					
13.	LIDEP	1	Beyond locality	1	0	0					
14.	Heifer International	1	Beyond locality	1	0	0					
15.	Usambara Coffee Cooperative	1	Beyond locality	1	0	0					
16.	Ushirika	1	Community	1	1	1					
17.	KKKT	1	Locality	0	1	1					
18.	Lutheran church	1	Beyond locality	1	0	0	1	Beyond locality	0	0	1
19.	Kwaya kuu						1	Community	0	0	1
20.	Local government						1	Community	0	0	1

	<b>Organisation name</b>	<b>Identified by men</b>	<b>Sphere of operation</b>	<b>Food security</b>	<b>Food crisis</b>	<b>NRM</b>	<b>Identified by women</b>	<b>Sphere of operation</b>	<b>Food security</b>	<b>Food crisis</b>	<b>NRM</b>
21.	Wizara ya kilimo						1	Locality	0	0	1
22.	Mradi wa maji						1	Community	1	0	1
23.	Watoto wanaoishi katika mazingira magumu						1	Locality	1	0	0
24.	Welfare						1	Community	1	0	0
25.	BRAC						1	Community	1	0	0
26.	Kibati						1	Locality	1	0	0
27.	Mradi wa kufuga kuku						1	Community	1	0	0
28.	Central Government (Serikali kuu)						1	Beyond Locality	1	1	1
29.	JBG						1	Community	0	0	1
30.	Tasaf						1	Locality	1	0	0
31.	Safina						1	Community	1	1	0
32.	Tarumbeta						1	Community	1	0	0
		<b>18</b>	<b>Community=2 Locality=7 Beyond locality=9</b>	<b>13</b>	<b>5</b>	<b>4</b>	<b>18</b>	<b>Community=9 Locality=5 Beyond locality=4</b>	<b>12</b>	<b>3</b>	<b>8</b>
Grand N=32											



### Topic 3: Networks of information

The aim of this exercise was to understand the diversity of options people use for accessing information on agriculture and weather, how people take advantage of sources of information available, whether some sources are not used, and why. We wanted to describe networks of how people access and share information within the community.

Table 8 shows the most important sources of information in Kwang'wenda village. Men and women were asked to list situations when they sought information to make decisions on agriculture. For men such times included the onset of the rains, planting time and seasonal changes, whereas for women the times encompassed land preparation, planting, harvesting and marketing. Radio was identified as popularly used to transmit information on agriculture in the village, and the most significant source of information in general. Several radio stations air many programs in the Kiswahili language, which is the local language. Other sources of information, in order of importance, are organisations and individuals.

Table 8. Sources of information for men and women

Information Source	Topic (men)			Topic (women)			Total
	Seasonal changes	Onset of Rainfall	Planting time	Marketing	Harvesting	Land preparation and planting	
<i>INDIVIDUALS</i>							
Family	0	0	0	0	1	0	1
Friends	0	0	0	1	1	1	3
Neighbour	0	0	0	0	0	1	1
Elderly people	0	1	0	0	0	0	0
Organisations	0	0	1	1	1	1	4
<i>MEDIA</i>							
Radio	1	1	0	1	1	1	5
TV	0	1	0	0	0	0	1
Newspaper	0	1	0	0	0	0	1
<i>OTHER</i>							
Observation	0	0	0	0	0	0	0
Gatherings/ meetings	0	0	0	1	0	1	2

### Conclusion and recommendations

Population growth and agriculture intensification have led to encroachment onto the forest areas, reduction in riparian vegetation, cultivation along the riverbank, and soil fertility depletion on the farmland. Population increase has led to an increase in the demand for forests products and a resulting increase in levels of exploitation, and encroachment onto the forest areas. Cultivation along the riverbank and direct watering of livestock in the river have reduced riparian vegetation and made the riverbank more susceptible to erosion and degradation. The community no longer implements the restrictions on the use of the river and the riparian area that the colonial government had imposed.

The Kwang'wenda village is located on a hilly landscape with many steep sided hills. Farming is done on the hilltops, on the slopes and in the valleys. The overall area under farming has increased but individual farms have become smaller than in the past and production per unit area has reduced due to land subdivision. There is an increasing intensification of agriculture but very little conservation agriculture is practised despite generalized deforestation and soil erosion. The changing climate is likely to increase challenges to an already constrained food production system.

The village's forest resources have been reduced in size and density due to increases in population and in associated demand for forests products. The forests are owned and managed by the government, and are the source of rivers Nyasa, Ubiri and Mkuzu. Cultivation along the riverbanks and direct watering of livestock in the rivers have reduced riparian vegetation and made the riverbanks more susceptible to erosion/degradation.

Rivers are used for domestic water, irrigation water, livestock watering and sand harvesting. The water is generally clean but is sometimes contaminated by pesticides. During the rainy season the rivers flood and carry away crops that are planted by the riverside. Cultivation along the riverbank and direct watering of livestock in the river have reduced riparian vegetation and made the riverbank more susceptible to agents of erosion/degradation. Horticulture along the riverbanks creates self-employment, yet floods that wash away the crops limit it. Cultivation of the riparian reserve is popular because the flood plains have rich alluvial soils and the river provides a reliable source of water for irrigation thus ensuring high yields, which contribute positively to food security in the community.

The urban centres/markets have grown over time due to population increase, which has led to an increase in demand for goods and services. They are outlets for agricultural produce, source of goods, services and employment. There has been expansion of infrastructure such as roads, schools and hospital but their quality has decreased. The poor condition of roads linking the centres is considered a limitation. The bridge at Mshizii connecting Kwang'wenda and Mshizii villages is also in poor condition.

The community's vision of the future, as expressed by the survey participants, includes the conservation and expansion of the forest area by planting more trees and enforcing restrictions on illegal logging. The vision also calls for allowing riverine vegetation to mature, which is expected to ensure that the rivers have clean water, while promoting agroforestry systems in the farmlands. Improved infrastructure also ranks high in the priorities of the community. The participants would like to see two more schools established, the existing ones upgraded, the roads widened, and the bridge repaired.

The male and female discussion groups identified a total of 32 organisations/groups. About 67% of them addressed social issues and 25% focused on economic matters. Less than 10% concentrated on natural resources management. Sixty percent of the organisations were involved in food security assistance, prioritizing food availability. Few organisations provide food crisis support, per se. The participants indicated that they consider themselves experiencing a food crisis when the children go to school without having had a meal. Men were better informed about and interacted with groups that operated beyond the locality, while women were more aware of and engaged in groups that operated within the community but had limited operational capacity. Radio is the most significant source of information on agriculture in Kwang'wenda village. The Radio stations air many programs in the Kiswahili. Other sources of information are organisations and individuals.

Table 9 summarizes major gaps in knowledge and other current constraints that could provide opportunities/niches for CCAFS partners in terms of research, action/research and development interventions.

Table 9. Gaps in knowledge or other current constraints that could provide opportunities/niches for CCAFS and its partners

<b>Gaps in knowledge/ current constraints that could provide opportunities/niches for CCAFS and partners</b>	<b>Opportunities for research (CCAFS)</b>	<b>Opportunities for Action Research (CCAFS partners)</b>	<b>Development Interventions (Development Partners)</b>
Adoption of good and land husbandry	X	X	X
Interaction between the farmers and the Ministry of Agriculture		X	X
Low yield (could be caused by a host of issues such as low soil fertility)	X	X	X
Poor infrastructure (road network, etc.)			X
Few development agencies working in the village		X	X
Few linkages amongst the organisations		X	X
Poor water conservation the resources and the water catchment/springs/river beds/		X	X
Sustainable use of forest/co-management approach		X	X
Build capacity of community organisations		X	X
Information on weather has not been given priority-mainstream	X	X	X