



# ZANZIBAR CLIMATE CHANGE ALLIANCE

## GIS-based Mapping Report for ten(10) Urban-Unguja Wards.

SUPPORTED BY



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## **List of Acronyms**

<b>ZACCA</b>	Zanzibar Climate Change Alliance
<b>TRSC</b>	Tanzania Red cross Service Center
<b>FVPO</b>	First Vice President Office
<b>SVPO</b>	Second Vice President Office
<b>DOE</b>	Department of Environment
<b>DMC</b>	Disaster Management Commission
<b>AM CROSS</b>	American Red Cross
<b>IFRC</b>	International Federation of Red Cross Red Crescent
<b>COCHAP</b>	Coastal City Resilience and Extreme Heat Action Project
<b>BHA</b>	Bureau for Humanitarian Assistance
<b>CWRA</b>	City Wide Risk assessment

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## CHAPTER ONE

### INTRODUCTION, BACKGROUND, SCOPE, OBJECTIVES & OUTCOMES OF THE ASSIGNMENT

#### 1.0 Introduction

Extreme heat and coastal threats (Climate Hazards & Floods) around the world have increased for the last 20 years and affected billions of people. The same has been observed in Zanzibar, which resulted in severe impacts in many parts of the urban-west region and affected many people, threatens several lives and caused substantial economic losses. Therefore, this report intended to show the assessment of the community climate-risk, disaster Heat trends, and geographical reason to these impacts wards through conducting GIS community mapping and community engagement and Accountability (CEA).

#### 1.1 Background

The Tanzania Red Cross (TRCS) with support from the American Red Cross (Am Cross) (For Tanzania replace it with International Federation of Red Cross Red Crescent (IFRC) with implementation of the Coastal City Resilience and Extreme Heat Action (CoCHAP) Project that funded by USAID Bureau for Humanitarian Assistance (BHA) in two cities of (Tanga-Mainland and Unguja-Zanzibar island of Tanzania).

The Project aims to build climate resilience of urban communities, particularly to extreme heat and coastal threats through expanding risk knowledge and strengthening local action in Southeast Asia, Latin America and East Africa regions in nine secondary cities between September 2022- August 2027. TRCS to ensure the achievement of this project conducted City Wide Risk assessment September-October month with close support from IFRC, Local government, Universities and different stakeholders for both two cities of Tanga and Unguja. The assessment was to assess impacts on different city systems related with environmental science, engineering, economics, social sciences, and community engagement. It was covering various aspects of its social, economic, environmental, and infrastructure components in play crucial role in guiding urban development and governance through providing of comprehensive understanding of a city's strengths and weaknesses, enabling informed decisions and policies that can enhance the overall well-being and sustainability of the community. To compliment the achievement of this CWRA report, TRCS recruited ZACCA- Zanzibar Climate Change Alliance to develop GIS-based mapping of the Unguja cities.

ZACCA is an umbrella and experience leading climate change focused apex organization in Zanzibar with an excellent and extensive track record on climate change policy, community engagement, governance and financing with over 50 members. ZACCA has a full and up to date understanding of the Zanzibar's climate change policy and institutional landscape as well good knowledge of, and working relationship with key stakeholders with government institutions, DPs, LGAs and local communities.



*Mr. Hishami, ZACCA Community Mobilizer energizing the teams while collecting information at Kikwajuni Juu Ward.*



*Md. Adella from TRSC Zanzibar leading the mapping at MIEMBENI wards with staffs from ZACCA and Volunteers*

## 1.2 Scope of the Work



*ZACCA and TRCS team during the Communities Mapping*

The assignment conducted in the Urban District in Zanzibar and involves 10 wards with 2000 households. Data were collected using an interviewer-administered questionnaire (GPS logger and Kobo Collect Tool) for heads of Shehia and heads of the households in a community.

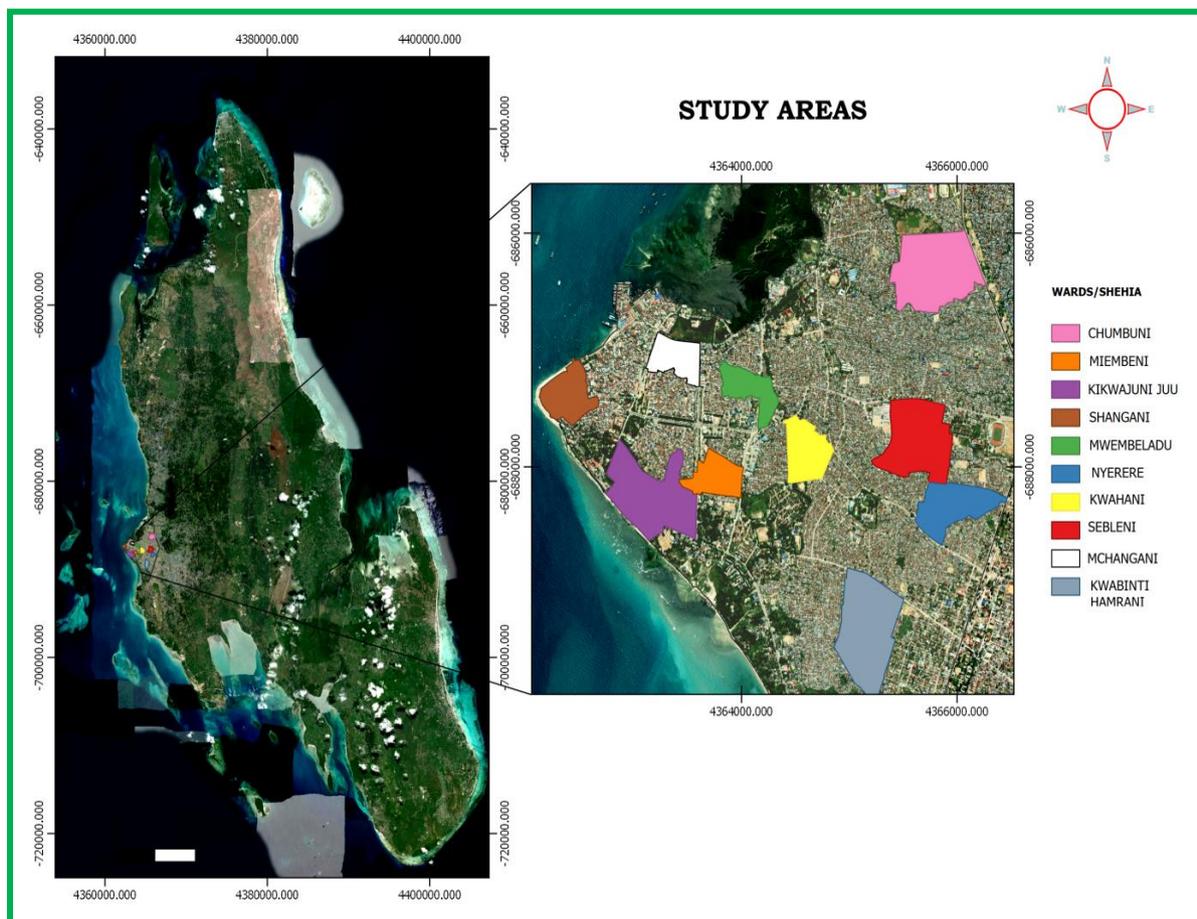


*ZACCA officers collecting information at KWAHANI ward.*

The report will provide the crucial findings of the assignment in next pages to illustrate the necessary further steps.

The following were the potentials data contents collected in this Mapping for base map:-

- (a) Ward and municipality boundary for ten Urban Wards in Unguja
- (b) Road network of all types of roads with associated details
- (c) Rivers and drainage systems, including all details of water bodies
- (d) Local govt., municipality, Ward Disaster Management Committee offices
- (e) All built up structures such as human settlements, industries, educational, recreational, religious, etc.
- (f) Green spaces (playground, park, field, community spaces etc.)
- (g) Police stations, fire service, post offices, hospital, clinic, and health center.



**Map 1: Study Areas -Maps which shows all 10 wards/Shehia**

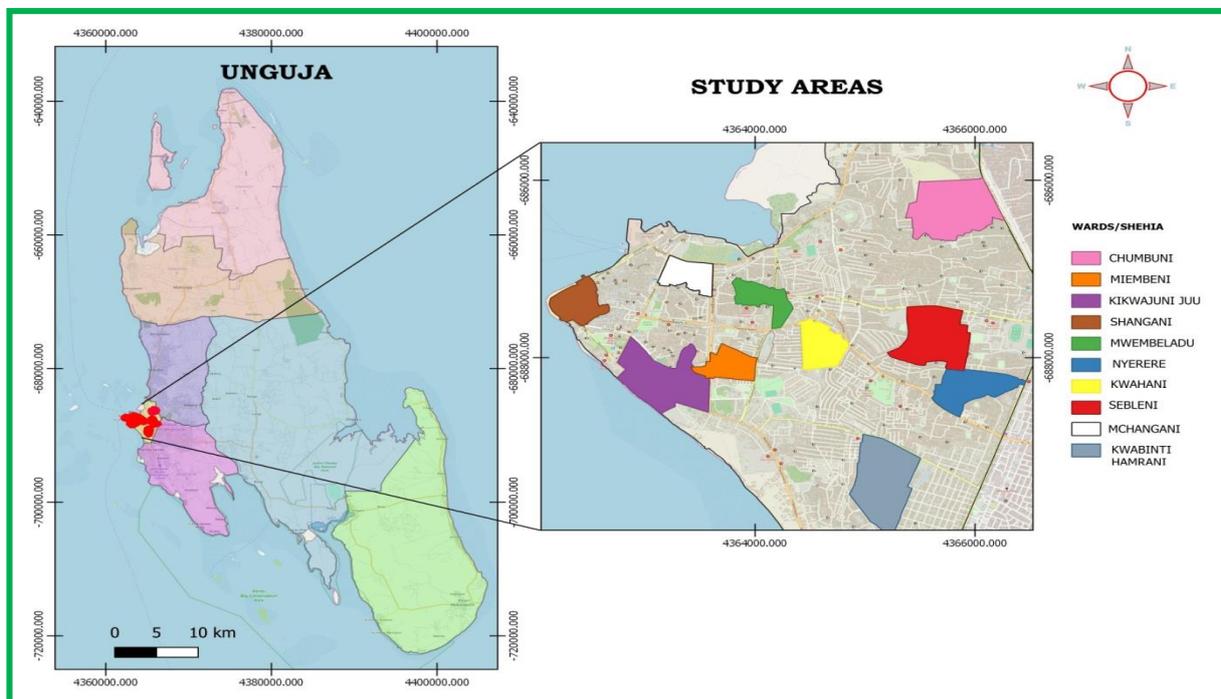
Therefore, ZACCA team in close collaboration with TRCS teams successful visit, collect and mapped all these ten (10) wards namely Sebleni, Kwabinti Hamran, Chumbuni, Kwahani, Mwembeladu, Kikwajuni Juu, Shangani, Mchangani Nyerere and Miembeni .

### 1.3 Objectives of the Work

The objective of this assignment is to develop municipality-level GIS-based Base Map showing the details of existing land use pattern, including other associated features and attributes described below. The maps may be considered to assist in strategic planning, resource utilization management, planning and management of day-to-day operations and for the preparation of municipality-level disaster and climate risk management planning. In fact to develop GIS based map of Unguja cities (ten wards), including structural assets and critical infrastructure, facilities and services (such as ward boundaries, buildings/built-up area, roads, water bodies, important landmarks, physical features, open spaces, road network, flyovers, footpath, road dividers, public toilets, garbage collection points, landfills, drainage network, dustbins, hospitals, fire service, police stations, educational institutions, and so on)

### 1.4 Expected Outcome/Outputs

- i. Findings of the assessment (GIS Mapping) completed and reported.
- ii. Digital/web files of both the maps in png/osm/dxf/dwg formats well print-ready.
- iii. Color copies of the maps for each of the wards in the following sizes – A3, A1 and A0 (2-sets; one for each municipality) printed.
- iv. All raw data, including geodatabase/shape file of all prepared layers and layer in osm/dcx/dwg formats submitted.



*Map 2: All Wards mapped.*

## CHAPTER TWO

### FINDINGS OF MAPPING

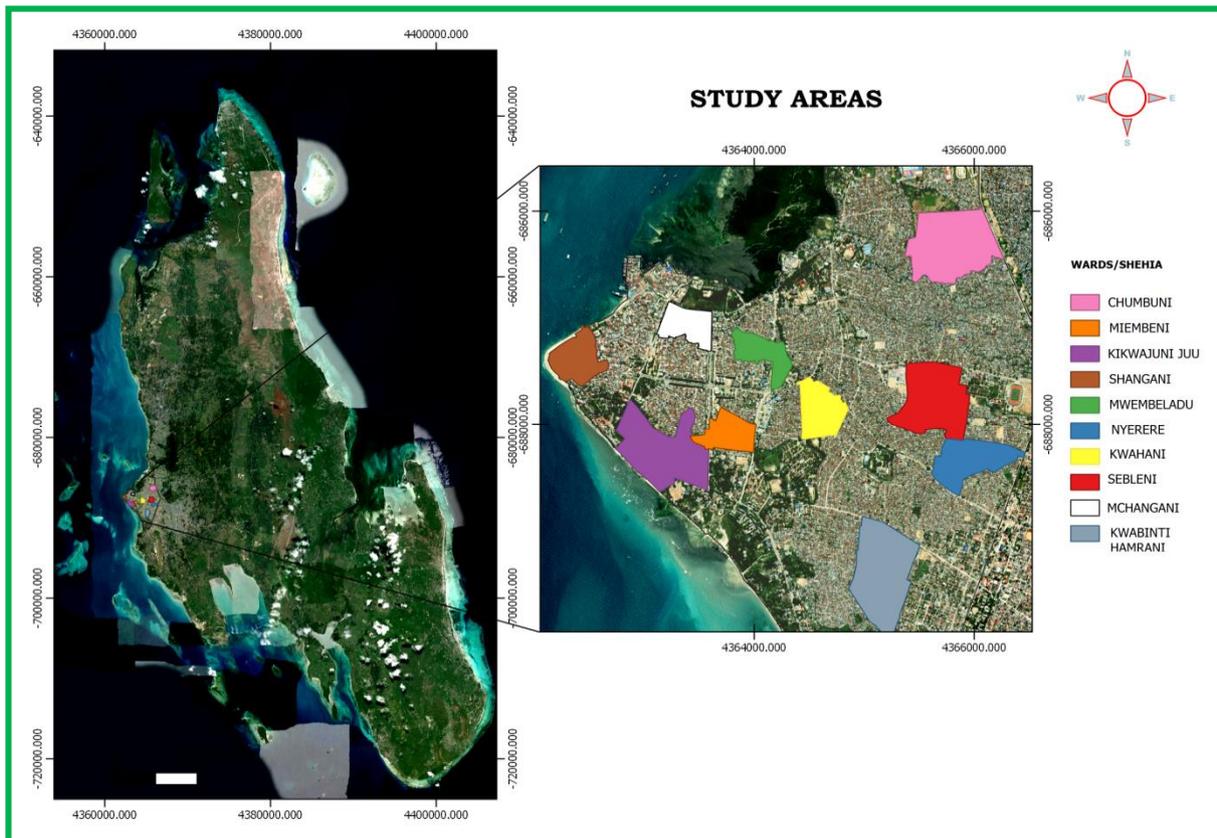
#### 2.0 Mapping Findings

This chapter presents all findings collected in all ten wards which encompass 12 data sets. These findings displayed in accordance to the ward/shehia so each shehia will portray its descriptions. The findings represent both GIS Community Mapping and Community Engagement and Accountability

#### 2.1 ABOUT STUDY AREA.

The mapping conducted in Urban West Region Unguja which has the **219,009** population and area of **15.46km<sup>2</sup>** with **14,171/km<sup>2</sup>** where ten (**10**) urban wards involved in this mapping, all wards has **46,828** populations and **200** people were engaged in each ward and make total of **2000** for all Shehia where 12 data set were carefully mapped.

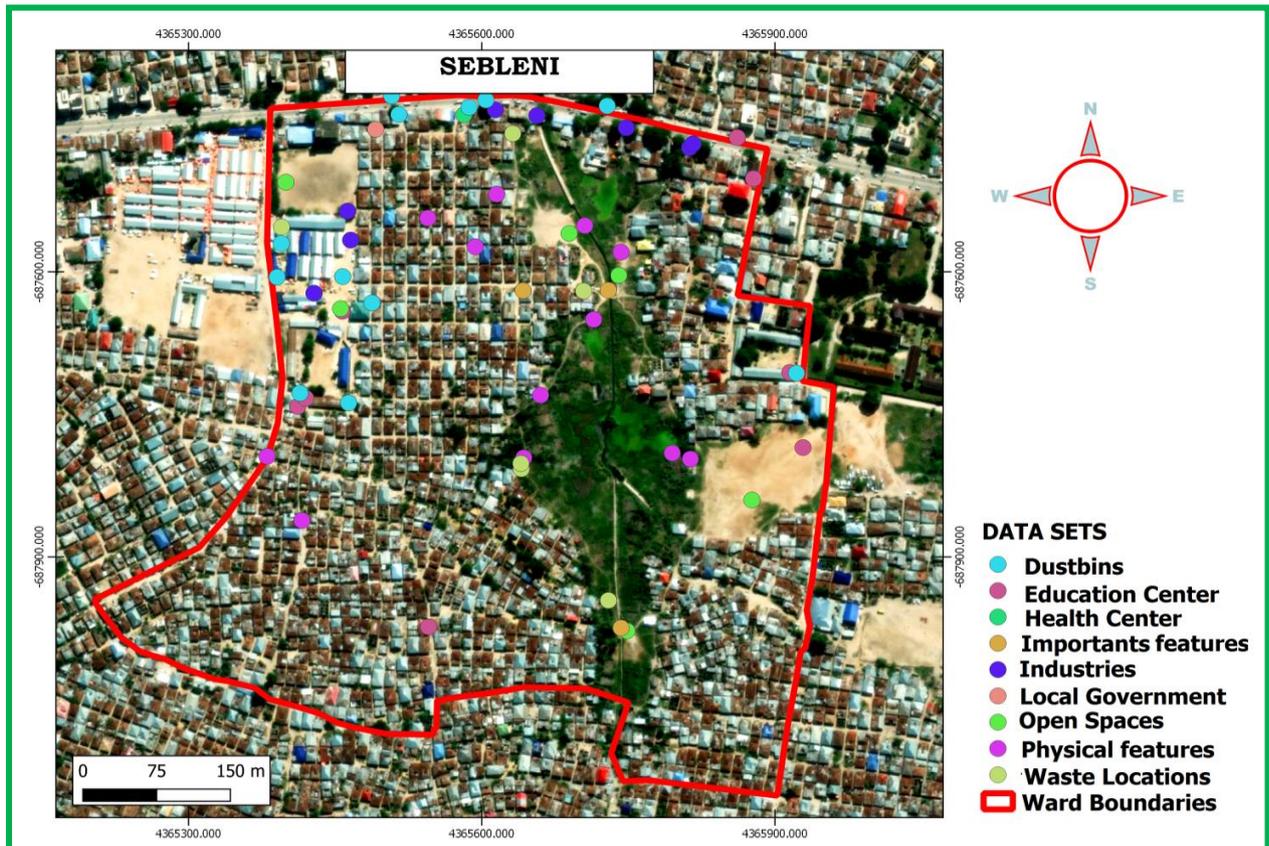
These data sets are then uploaded to the Open street map to complete the missing data. The following descriptions show the findings in all 10 wards.



*Map 3: Study areas where Findings described at.*

## 2.1.1 SEBLANI

This shehia is located at Urban District in the Urban West Unguja Region which have 0.3629km<sup>2</sup> area for the 19,332km<sup>2</sup> population density and 7,016 population.



*Map 3: Data Sets mapped at Sebleni Ward*

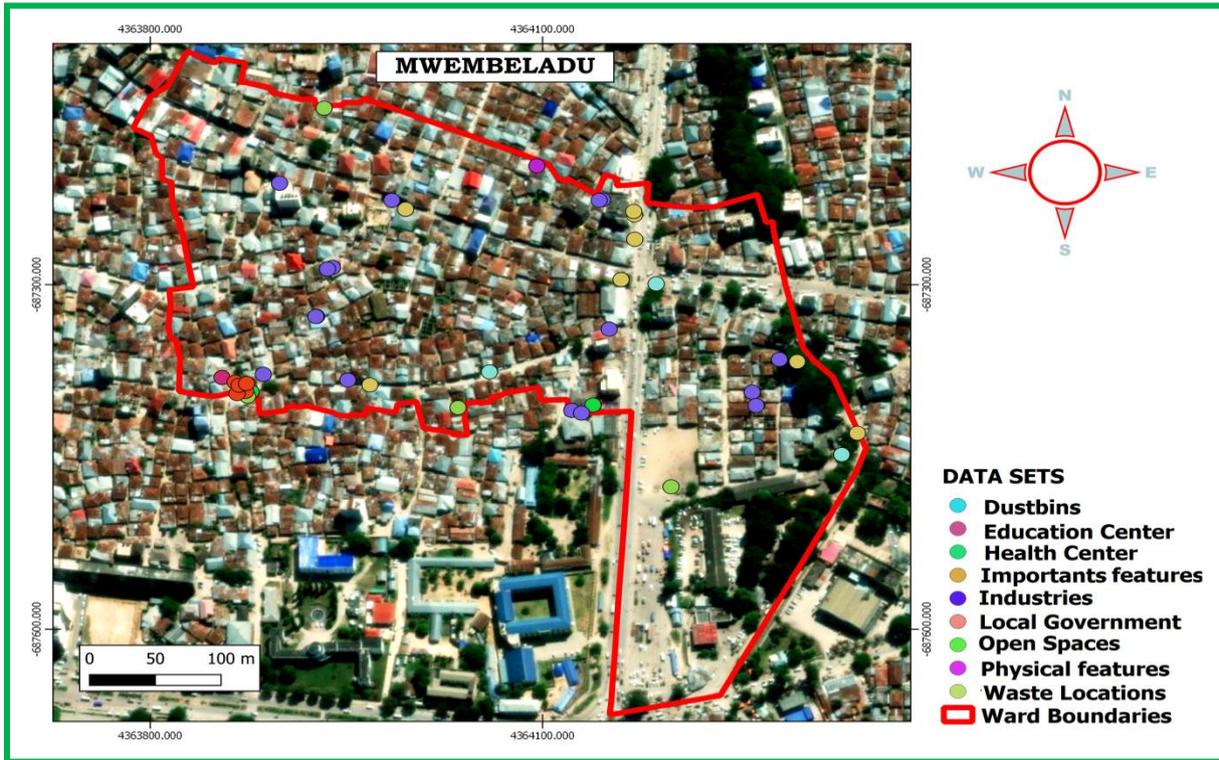
There are 14 Plastics Small dustbins , 4 Education Center (2 Government & 2 Private Schools), 4 Health Center (1 Government & 3 Private Hospital/Dispensary) 4 Importance features such as 2 bridge and 2 water tower,9 small industries ( 7 wood and 2 welding industries),local Government with five Shehia Committees including Disaster Committee , Ward Committee, Children Council, Oldest Council, Youth Council, Peace & Security Committee, 6 open spaces( 2 green spaces , 3 football ground and 1 Car parking) ,6 physical features including 1 dams, 4 water well and 1 small hill, and 6 waste location points with 1 collection point.



*Md. Rauhiya from ZACCA collect physical feature at Sebleni Ward*

## 2.1.2 MWEMBELADU

This shehia is located at Urban District in the Urban West Unguja Region which have 0.1429km<sup>2</sup> area for the 17,733km<sup>2</sup> population density and 2,534 population.



*Map 4: Data Sets mapped at Mwembeladu Ward*

There are 8 Plastics Small dustbin in this ward, 2 private education Center, 4 Health Center (1



& 3 Private Hospital/Dispensary) 4 Importance features including 2 traffic light, 2 telecommunication tower, 1 welding small industry, local Government with five Shehia Committees including Disaster Committee , Ward Committee, Children Council, Oldest Council, Youth Council, Peace & Security Committee, No open spaces ,18 physical features which all are 4 water well, and No waste location points no collection point.

*Mr. Mustwafa ZACCA program Lead leading Redcross Team in Mapping Drainage at Mwembeladu Ward*

### 2.1.3 KWABINTIHAMRANI

This shehia is located at Urban District in the Urban West Unguja Region which have 0.4478 km<sup>2</sup> area for the 19,701km<sup>2</sup> population density and 8,822 population.



*Map 5: Data Sets mapped at Kwabinti Hamrani Ward*

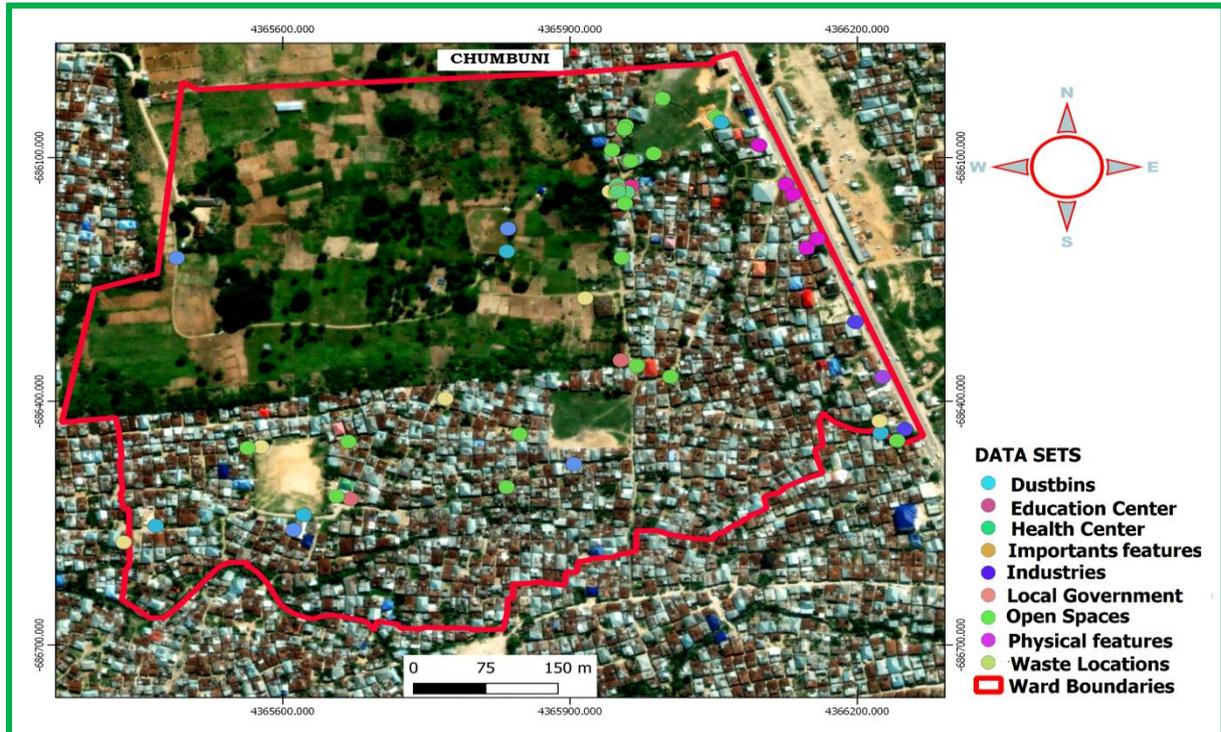
There are 4 Plastics Small dustbin in this ward, 3 Education Center (1 Government & 2 Private Schools), 3 Health Center (1 Government & 2 Private Hospital/Dispensary) 4 Importance features such as 2 bridge and 2 water tower, 1 small wood industry, local Government with five Shehia Committees including Disaster Committee , Ward Committee, Children Council, Oldest Council, Youth Council, Peace & Security Committee, 8 open spaces( 2 green spaces , 5 football ground and 1 waste site) ,17 physical features including 1 dams, 15 water well and 1 small swamp, and 15 waste location points with 8 collection point.



*ZACCA team and their Germany volunteer at Kwabintihamrani during the Community Mapping.*

## 2.1.4 CHUMBUNI

This shehia is located at Urban District in the Urban West Unguja Region which have 0.4494 km<sup>2</sup> area for the 16,080 km<sup>2</sup> population density and 7,226 population. There are 2 old plastics Small dustbin, 1 government education Center, 5 Health Center (1 Government & 4 Private Hospital/Dispensary) 2 Importance features such as 1 bridge and 1 water tower, 5 small industry(3 wood and 2 welding, local Government with five Shehia Committees including Disaster Committee , Ward Committee, Children Council, Oldest Council, Youth Council, Peace & Security Committee.



*Map 6: Data Sets mapped at Chumbuni Ward.*

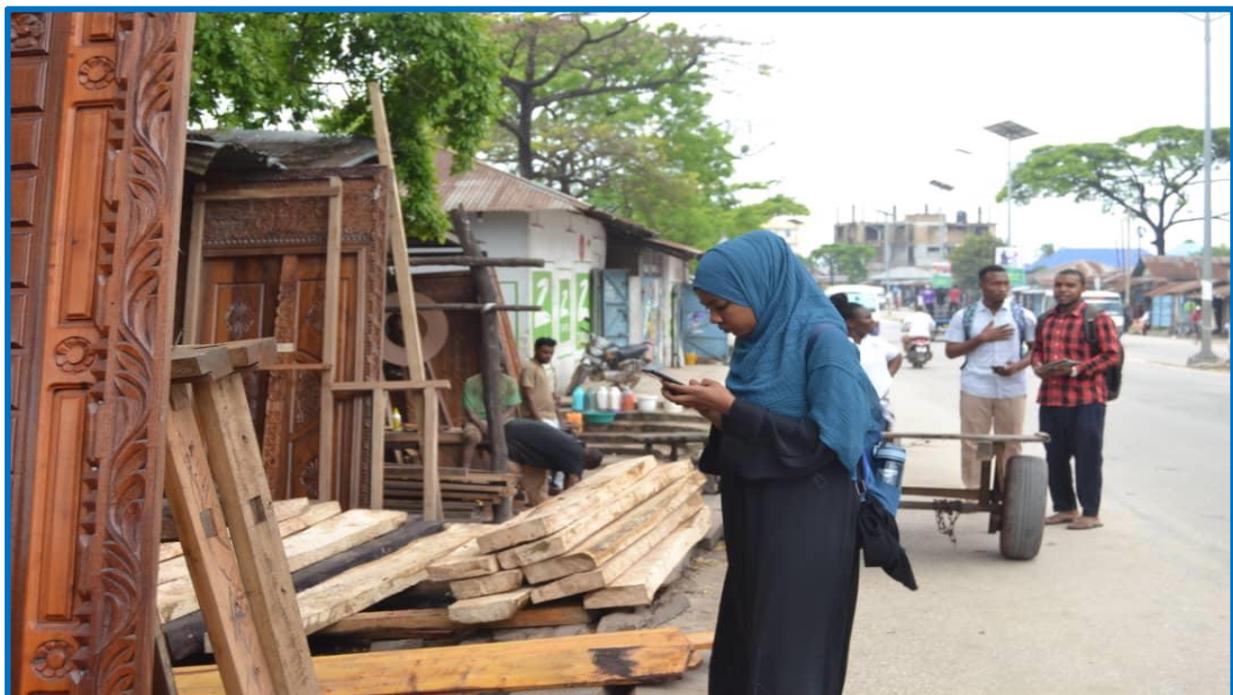
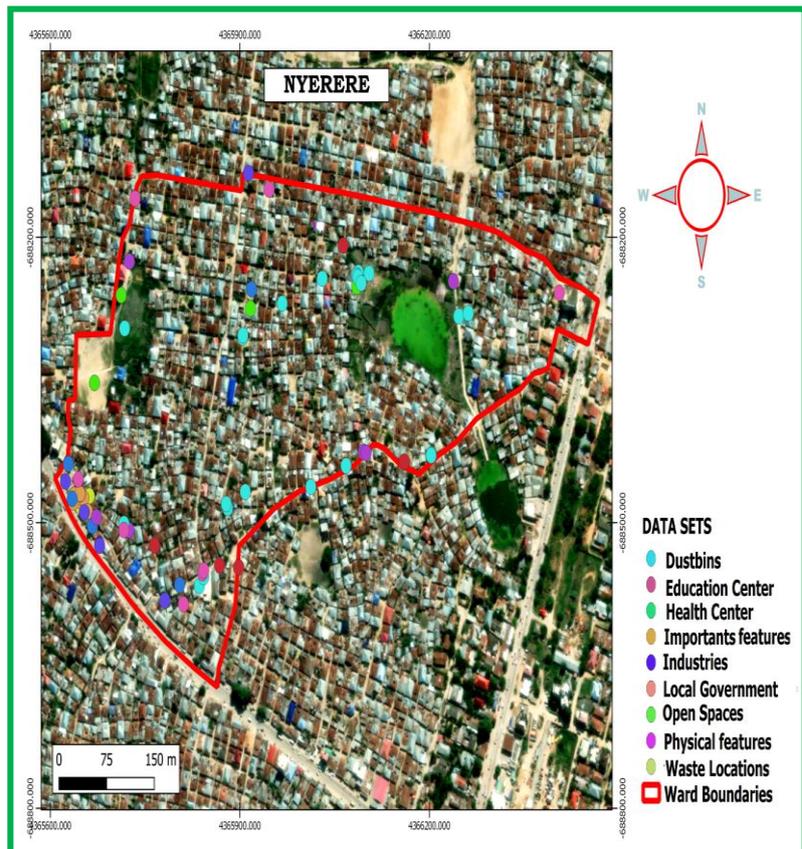


4 open spaces which is all green spaces, 6 physical features including 1 dams, 4 water well and 1 small hill, and 10 waste location points with 3 collection point.

*Mr. Haji from ZACCA collect the physical features (dam) at Chumbuni*

## 2.1.5 NYERERE

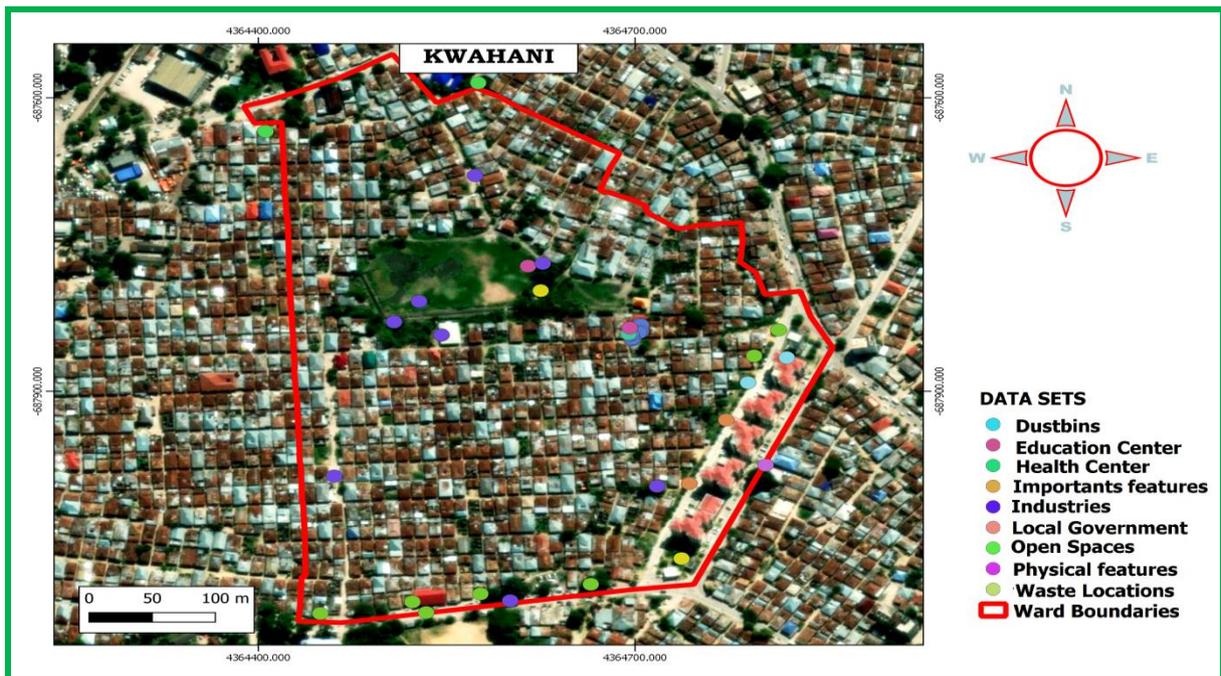
This shehia is located at Urban District in the Urban West Unguja Region which have 0.2333km<sup>2</sup> area for the 27,675km<sup>2</sup> population density and 6,456 population. There are 6 old plastics Small dustbins, 5 education Center(1Govenment and 4 private),1 private health Center, 9 Importance features such as 1 transformer and 8 water tower, 5 small industry(3 wood and 2 welding, local Government with five Shehia Committees including Disaster Committee , Ward Committee, Children Council, Oldest Council, Youth Council, Peace & Security Committee, 4 open spaces which is 1 Football Ground and 3 green spaces ,24 physical features including 2 dams and 22 water well , and 6 waste location points with 5 collection point.



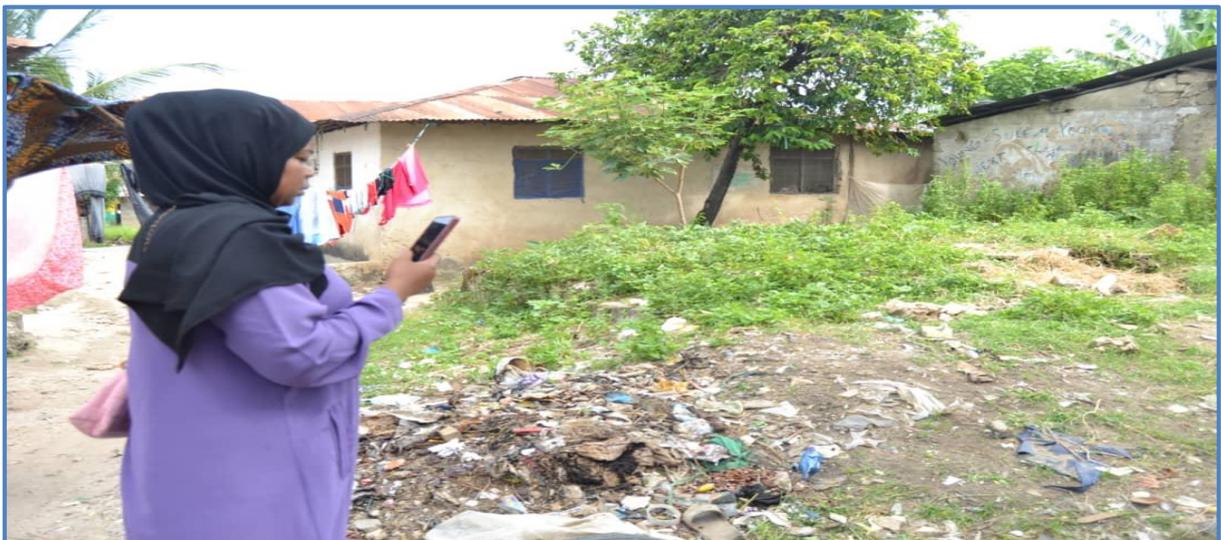
*Md. Halima from ZACCA collect the Industry data set at Nyerere Ward*

## 2.1.6 KWAHANI

This shehia is located at Urban District in the Urban West Unguja Region which have 0.1818km<sup>2</sup> area for the 25,998km<sup>2</sup> population density and 4,726 population. There are 8 plastics dustbin, 1 government education Center, 5 Health Center (1 Government & 4 Private Hospital/Dispensary) 4 Importance features such as 3 fire rescue areas and 1 water tower, 2small wood and 1 welding industries, local Government with five Shehia Committees including Disaster Committee , Ward Committee, Children Council, Oldest Council, Youth Council, Peace & Security Committee, 2 open spaces which is all football grounds ,7 physical features including 1 dams, 6 water well and 3 waste location points with 1 collection point.



*Map7: Data Sets mapped at Kwahani Ward*



*Md. Saada from ZACCA collecting Waste Collection points at Kwahani Ward*

## 2.1.7 MIEMBENI

This shehia is located at Urban District in the Urban West Unguja Region which have 0.1444km<sup>2</sup> area for the 26,027km<sup>2</sup> population density and 3,758 population. There are 7 old plastics small dustbin, 1 government education Center, 2 Health Center (1 Government & 1 Private Hospital/Dispensary) 2 Importance features such as 1 bridge and 1 water tower, 3 small industry(2 wood and 1 welding, local Government with five Shehia Committees including Disaster Committee , Ward Committee, Children Council, Oldest Council, Youth Council, Peace & Security Committee, 4 open spaces which is all car parking ,4 physical features which all are water well and 1waste location points with 1 collection point.



*Map 8: Data Sets mapped at Miembeni Ward*



*ZACCA staff at Miembeni Ward collecting Waste collection point during the community mapping.*

## 2.1.8 KIKWAJUNI JUU

This shehia is located at Urban District in the Urban West Unguja Region which have 0.4101km<sup>2</sup> area for the 5,803km<sup>2</sup> population density and 2,380 population.



*Map 6: Data Sets mapped at Kikwajuni Ward*

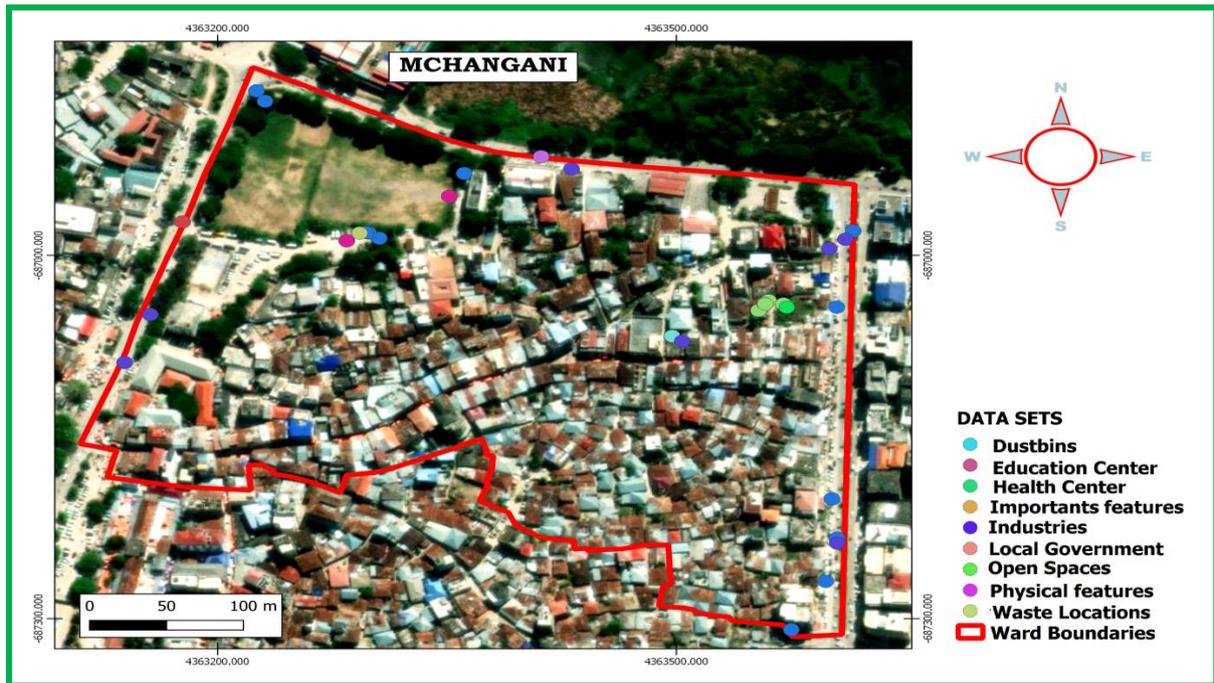
There are 9 plastics dustbin, 11 education Center (9 government and 2 private), 2 private health Center. 6 Importance features such as 2 bridge, fire rescue areas and 2 water tower, 5 small industry (3 wood and 2 welding, local Government five Shehia Committees including Disaster Committee, Ward Committee, Children Council, Oldest Council, Youth Council, Peace & Security Committee, 19 open spaces which including 8 green spaces, 8 car parking and 3 football grounds, 8 physical features all are water well, and 1 waste location points with 1 collection point.



*ZACCA team and TRSC receive directives from the Kikwajuni Juu Community Leader on Kikwajuni juu Ward Boundaries.*

## 2.1.9 MCHANGANI

This shehia is located at Urban District in the Urban West Unguja Region which have 0.1464 km<sup>2</sup> area for the 14,048km<sup>2</sup> population density and 2,057 population. There are 16 plastics medium size dustbin, 7private education Center, 3private Health Center, 2 Importance features fire rescue areas, 1 small industry, local Government with five Shehia Committees including Disaster Committee, Ward Committee, Children Council, Oldest Council, Youth Council, Peace & Security Committee, 2 open spaces (2green spaces and car parking) ,6 physical features including water well , and 1waste location points with 1 collection point.



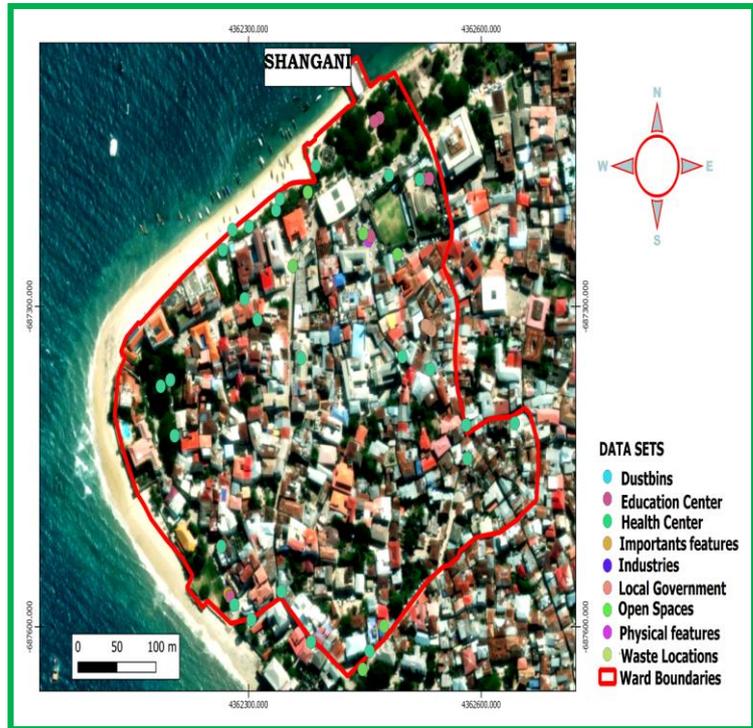
*Map 6: Data Sets mapped at Mchangani Ward*



*Mchangani Community Leader give proper direction to ZACCA team on data sets available in his ward.*

## 2.1.10 SHANGANI

This shehia is located at Urban District in the Urban West Unguja Region which have 0.1735km<sup>2</sup> area for the 10,679km<sup>2</sup> population density and 1,853 population. There are 25 Small dustbin, 6 education Center(4 government and 2), 5 Health Center (1 Government & 4 Private Hospital/Dispensary) 1 Importance features which is transformer, 5 small industry(3 wood and 2 welding, local Government with five Shehia Committees including Disaster Committee , Ward Committee, Children Council, Oldest Council, Youth Council, Peace & Security Committee,8 open spaces including 3 Historical Places, 3 green spaces and 2 Car parking ,4 physical features which is all are water well, and 3 waste location points with 2 collection point.



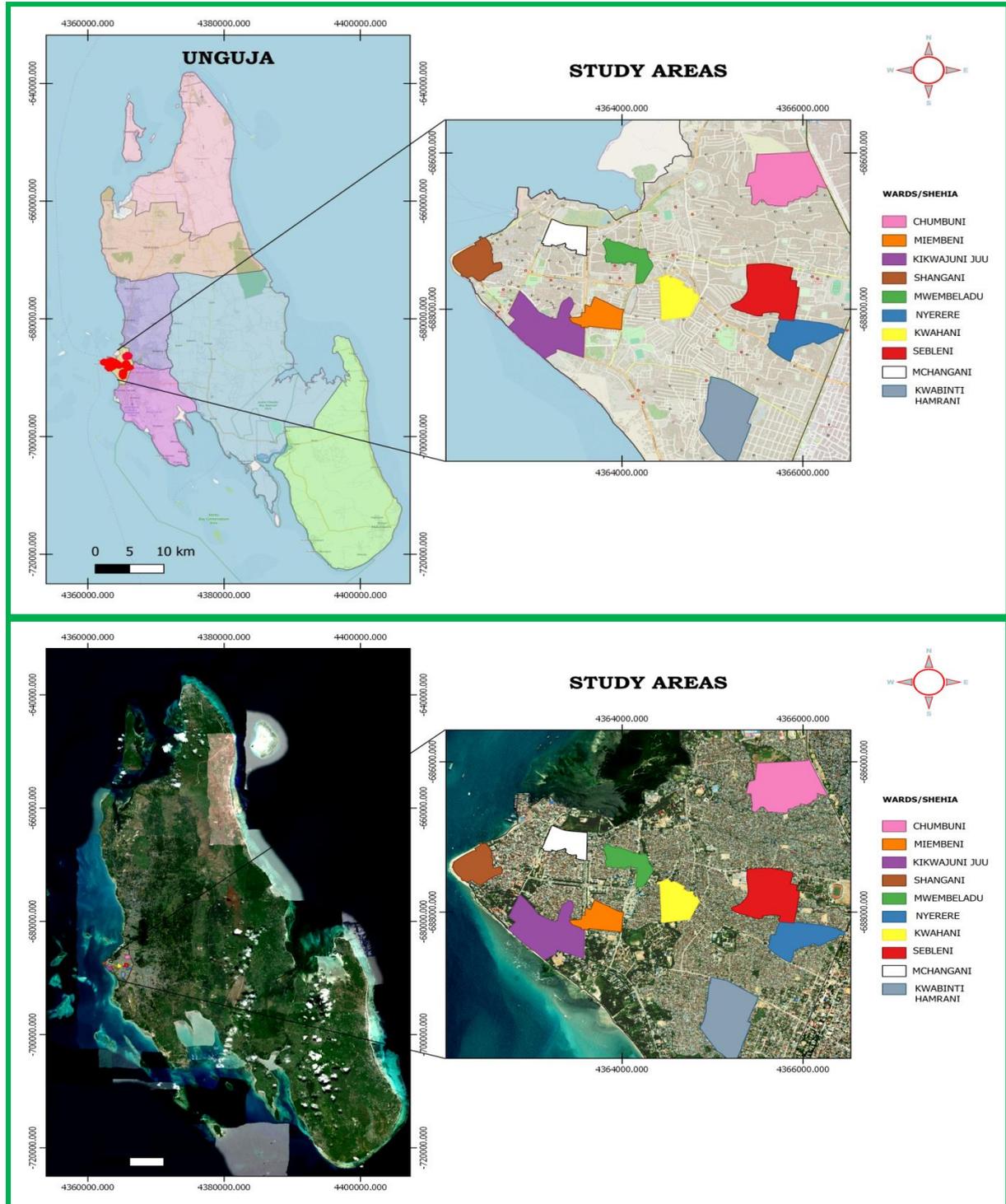
*Map 6: Data Sets mapped at Shangani Ward*



*Community Leader at Shangani Ward with ZACCA team after conducting community mapping in his ward*

## 2.2 COMMUNITY ENGAGEMENT AND ACCOUNTABILITY –CEA

All ten 10 shehia has been well engaged through CEA and the community also has actively responded to more than 15 questions prepared for them. Each Shehia 200 Households and their community leader/ Sheha are involved in this CEA. The following are the findings and its analayzation.

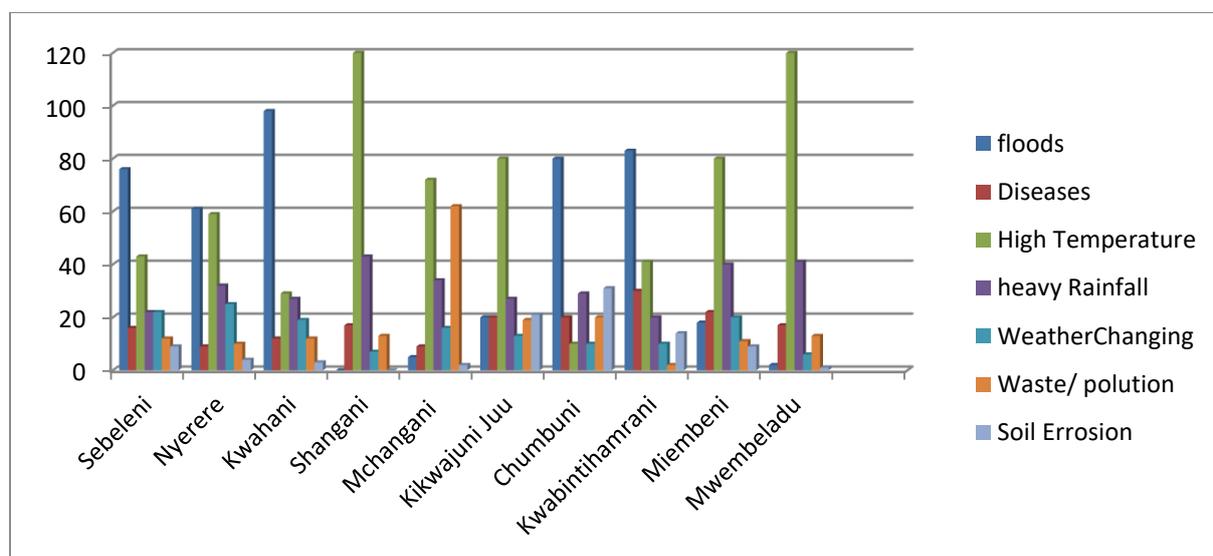


*Map 6: CEA – Community Engagement & Accountability Focus areas.*

## 2.2.1 Climate Hazards & Disaster

Wards/ Shehia	Assessment on Climate Change & disaster impacts and its trend						
	Floods	Disease	High Temperature	Heavy Rain	Weather Changing	Waste/ pollution	Soil Erosion
Sebleni	76	16	43	22	22	12	9
Nyerere	61	9	59	32	25	10	4
Kwahani	98	12	29	27	19	12	3
Shangani	0	17	120	43	7	13	0
Mchangani	5	9	72	34	16	62	2
Kikwajuni_juu	20	20	80	27	13	19	21
Chumbuni	80	20	10	29	10	20	31
Kwabinti	83	30	41	20	10	2	14
Hamrani							
Miembeni	18	22	80	40	20	11	9
Mwembeleadu	2	17	120	41	6	13	1
<b>Impacts Extent</b>	<b>443</b>	<b>172</b>	<b>654</b>	<b>315</b>	<b>148</b>	<b>174</b>	<b>94</b>

*Table 1: Assessment on Climate Change & disaster impacts and its trend*



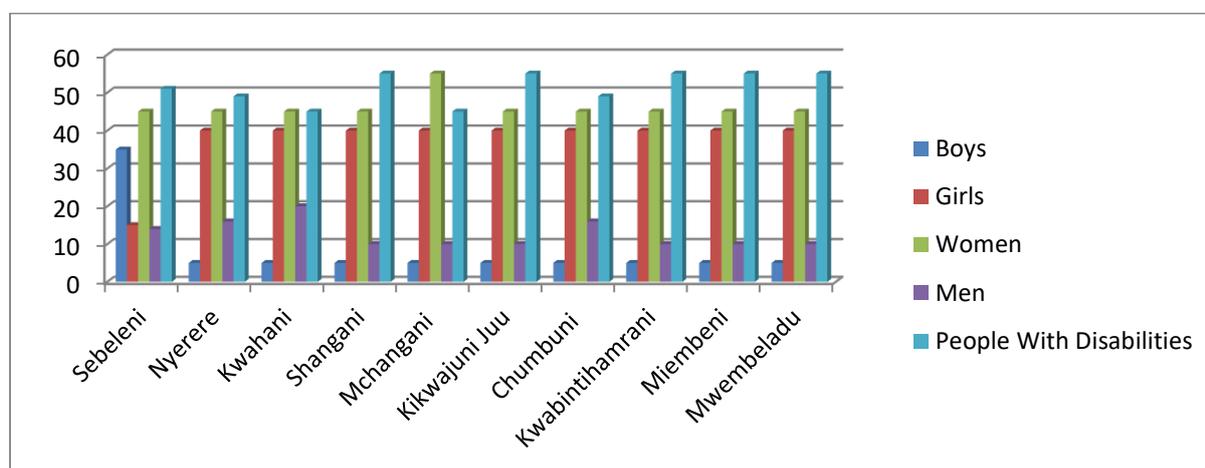
*Figure 1: Assessment on Climate Change & disaster impacts and its trend*

The high temperature shows is a major impact affecting the communities followed by floods and heavy rainfall. In shehia like Sebleni, Kwahani, Chumbuni, Nyerere and Kwa Binti Hamrani floods is a serious phenomenon while Shangani, Mwembeleadu and Kikwajuni juu are also serious with High temperature and Shangani, Mwembeleadu and Miembeni are so affected by heavy rain.

## 2.2.2 Community Groups Most Affected

Wards/ Shehia	Assessment on the group who are most affected with climate & disaster Impacts				
	Boys	Girls	Women	Men	People with Disabilities
Sebleni	35	15	45	14	51
Nyerere	5	40	45	16	49
Kwahani	5	40	45	20	45
Shangani	5	40	45	10	55
Mchangani	5	40	55	10	45
Kikwajuni_juu	5	40	45	10	55
Chumbuni	5	40	45	16	49
Kwabinti	5	40	45	10	55
Hamrani					
Miembeni	5	40	45	10	55
Mwembeleadu	5	40	45	10	55
<b>Group Score</b>	<b>80</b>	<b>375</b>	<b>455</b>	<b>126</b>	<b>1285</b>

*Table 2: Assessment on the group who are most affected with climate & disaster Impacts.*



*Figure 2: Assessment on the group who are most affected with climate & disaster Impacts.*

The marginalized and most vulnerable groups in this mapping are the People with Disabilities followed by women and girls. The high score of these three groups indicated in all ten (10) shehia demonstrate the importance of equipping these groups.

### 2.2.3 Measure to be taken to Reduce Vulnerability.

Wards/ Shehia	Assessment on measure to be taken into consideration to reduce vulnerabilities		
	Drainage Construction	Migrate the Place	Uses of local methods/ Viroba vya mchanga
Sebeleni	120	60	20
Nyerere	114	40	46
Kwahani	102	68	30
Shangani	190	5	5
Mchangani	186	4	10
Kikwajuni_juu	174	16	10
Chumbuni	145	42	13
Kwabinti Hamrani	132	43	25
Miembeni	150	15	35
Mwembeleadu	165	25	10
<b>Media Score</b>	<b>1478</b>	<b>318</b>	<b>204</b>

Table 3: Assessment on measure to be taken into consideration to reduce vulnerabilities

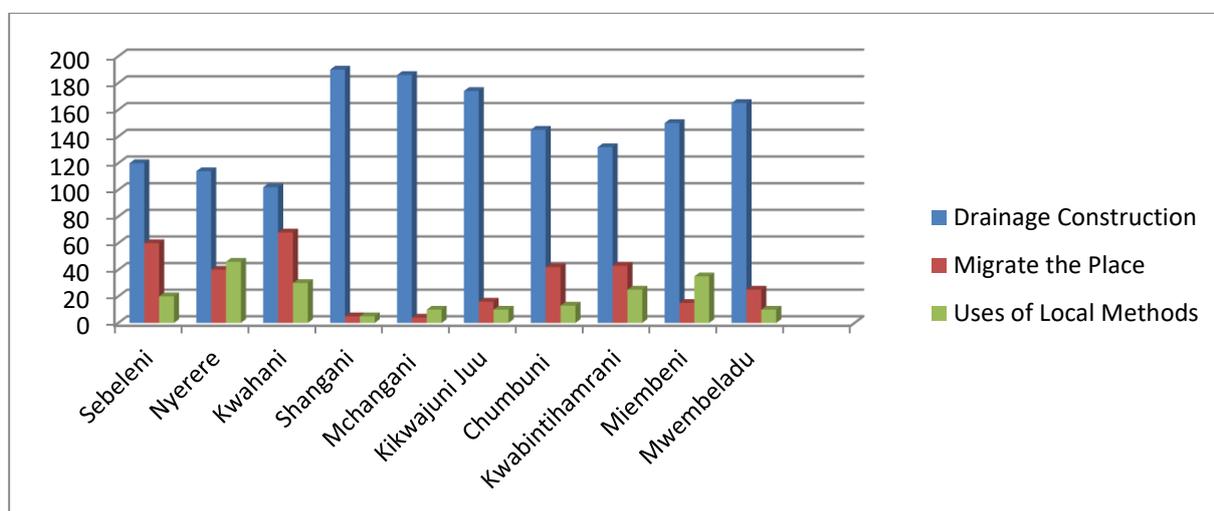


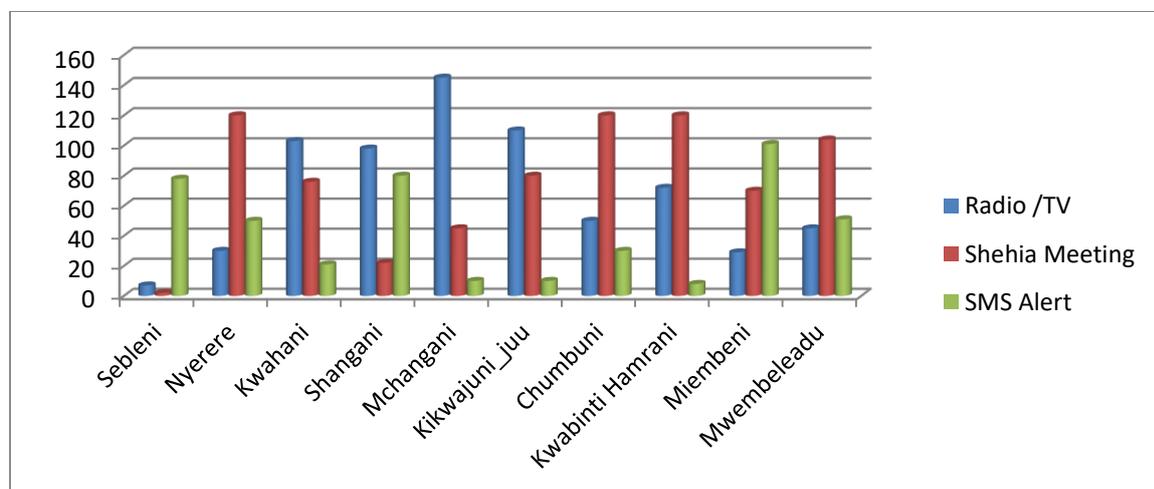
Figure 3: Assessment on measure to be taken into consideration to reduce vulnerabilities

Drainage construction in the most affected areas was strong suggestion of the all 10 wards since the 80% of the community members are highly highlighted on this.

## 2.2.4 Media for information

Wards/ Shehia	Assessment on media should be used to provide the information		
	Radio /TV	Shehia Meeting	SMS Alert
Sebleni	7	2	78
Nyerere	30	120	50
Kwahani	103	76	21
Shangani	98	22	80
Mchangani	145	45	10
Kikwajuni_juu	110	80	10
Chumbuni	50	120	30
Kwabinti Hamrani	72	120	8
Miembeni	29	70	101
Mwembeleadu	45	104	51
<b>Media Score</b>	<b>689</b>	<b>759</b>	<b>439</b>

*Table 4: Assessment on media should be used to provide the information*



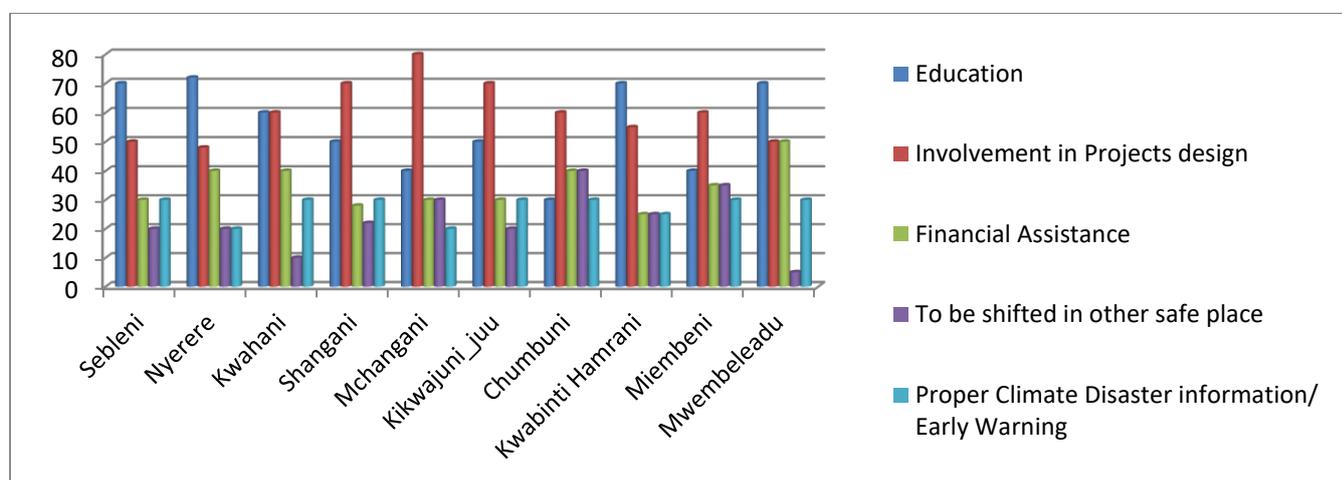
*Figure 4: Assessment on media should be used to provide the information*

The 75% of the community members prefer the media of information to be Shehia Meeting followed by Radio and TV and last via SMS alert. This show most of them rely most on their shehia leaders inform them. In fact Mchangani Ward community member prefer Radio and Tv as the most easily channel.

## 2.2.5 Method or Solution taken to reduce the Impacts

Wards/ Shehia	Assessment on methods or solutions you take to reduce the impacts				
	Education	Involvement in Projects design	Financial Assistance	To be shifted in other safe place	Proper Climate Disaster information/ Early Warning
Sebleni	70	50	30	20	30
Nyerere	72	48	40	20	20
Kwahani	60	60	40	10	30
Shangani	50	70	28	22	30
Mchangani	40	80	30	30	20
Kikwajuni_juu	50	70	30	20	30
Chumbuni	30	60	40	40	30
Kwabinti Hamrani	70	55	25	25	25
Miembeni	40	60	35	35	30
Mwembeleadu	70	50	50	5	30
<b>Measure Needed Most</b>	<b>552</b>	<b>603</b>	<b>348</b>	<b>227</b>	<b>275</b>

*Table 5: Assessment on methods or solutions you take to reduce the impacts*



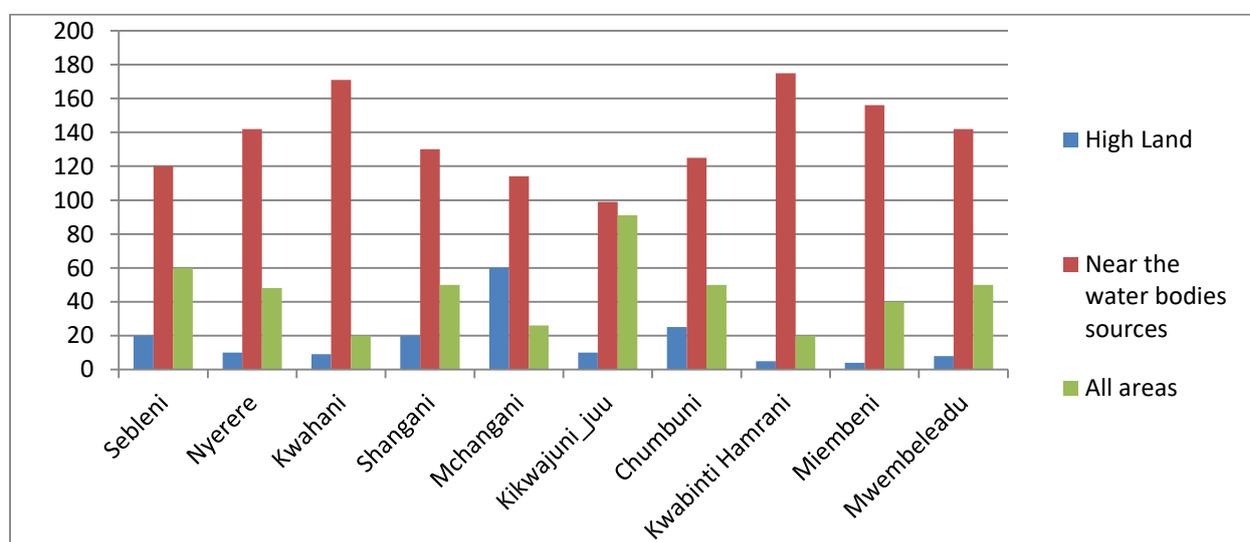
*Figure 5: Assessment on methods or solutions you take to reduce the impacts.*

Projects implemented in the community needs effective community involvement thus why 80% of the community members recommend as a primary solution to reduced climate and disaster risk.

## 2.2.6 Areas that most affected

Wards/ Shehia	Assessment on areas are most affected in your Shehia		
	High Land	Near the water bodies sources	All areas
Sebleni	20	120	60
Nyerere	10	142	48
Kwahani	9	171	20
Shangani	20	130	50
Mchangani	60	114	26
Kikwajuni_juu	10	99	91
Chumbuni	25	125	50
Kwabinti	5	175	20
Hamrani			
Miembeni	4	156	40
Mwembeleadu	8	142	50
<b>Media Score</b>	<b>171</b>	<b>1374</b>	<b>455</b>

*Table 5: Assessment on areas most affected in your Shehia*



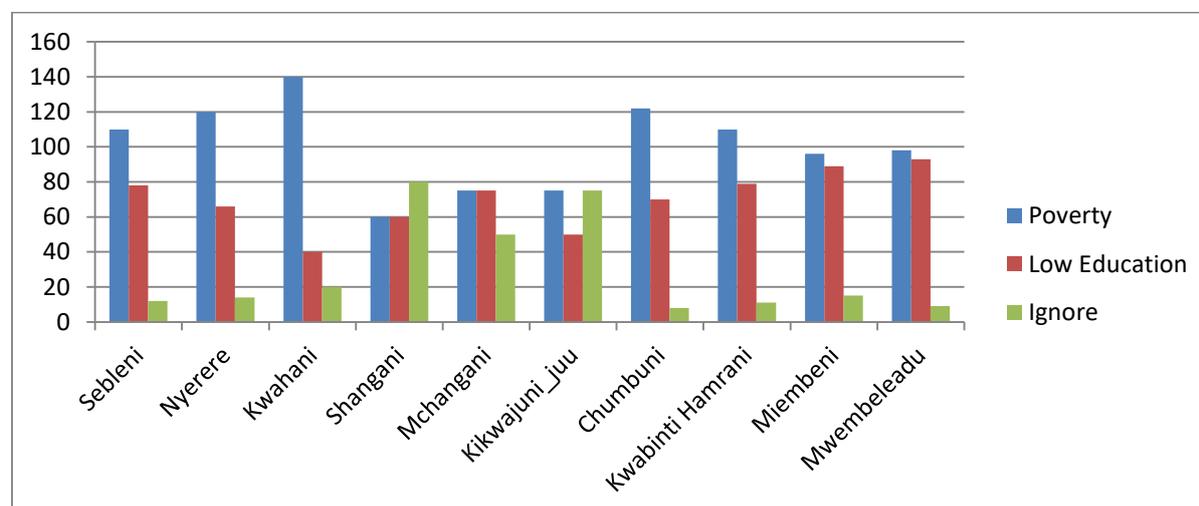
*Figure 5: Assessment on areas most affected in your Shehia.*

Most of the mapped areas are vulnerable from the climate and disaster risk impacts thus why 75% of community member are leaving near to the water source such as dams and swamps.

## 2.2.7 Reason for Community to remain in Vulnerability

Wards/ Shehia	Assessment on why community is still remaining in these affected areas		
	Poverty	Low Education	Ignore
Sebleni	110	78	12
Nyerere	120	66	14
Kwahani	140	40	20
Shangani	60	60	80
Mchangani	75	75	50
Kikwajuni_juu	75	50	75
Chumbuni	122	70	8
Kwabinti Hamrani	110	79	11
Miembeni	96	89	15
Mwembeleadu	98	93	9
<b>Media Score</b>	<b>1006</b>	<b>700</b>	<b>294</b>

*Table 7: Assessment on why community is still remaining in these affected areas*



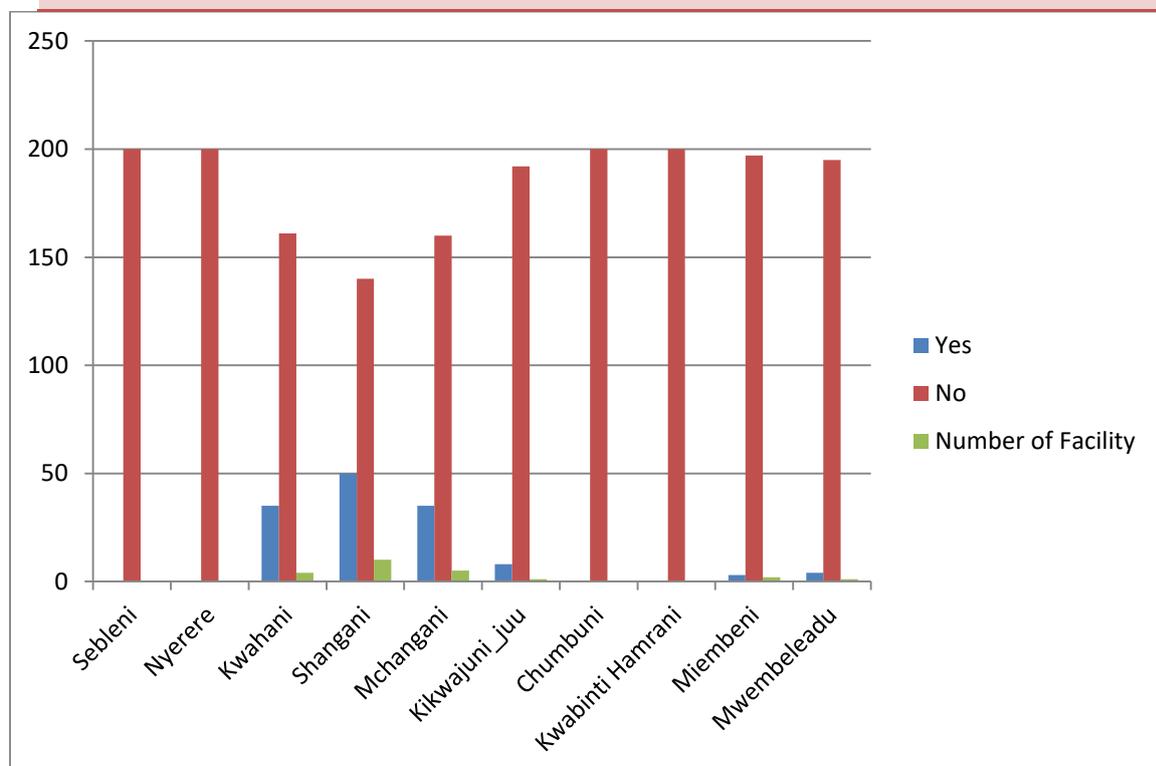
*Figure 7: Assessment on why community is still remaining in these affected areas.*

It is really revealed that the community life standard (poverty) is major reason why they are facing the climate and disaster risk impacts hence the economic empowerment is vital so as to reduce their vulnerability and increase the resilience.

## 2.2.8 Early Warning Facilities

**Table 8: Assessment on early warming facilities available in your Shehia**

Wards/ Shehia	Assessment on early warming facilities available in your Shehia		
	Yes	No	Number of Facility
<b>Sebleni</b>	0	200	0
<b>Nyerere</b>	0	200	0
<b>Kwahani</b>	35	161	4
<b>Shangani</b>	50	140	10
<b>Mchangani</b>	35	160	5
<b>Kikwajuni_juu</b>	8	192	1
<b>Chumbuni</b>	0	200	0
<b>Kwabinti</b>	0	200	0
<b>Hamrani</b>			
<b>Miembeni</b>	3	197	2
<b>Mwembeleadu</b>	4	195	1
<b>Media Score</b>	135	1845	23



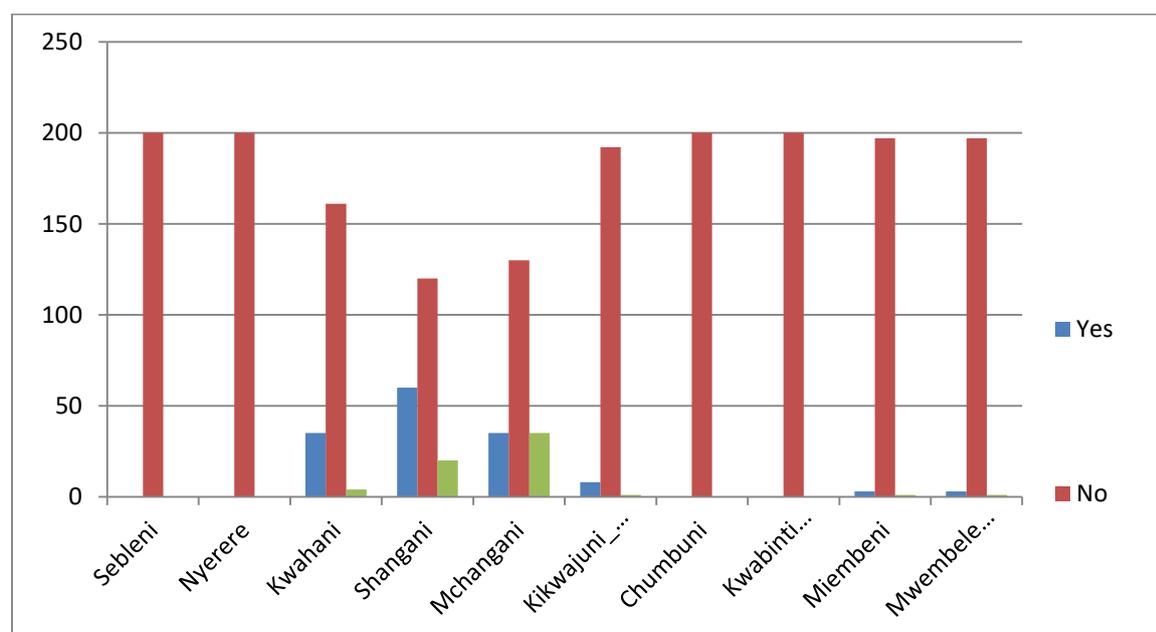
**Figure 8: Assessment on early warming facilities available in your Shehia**

## 2.2.9 Emergence Center

**Wards/ Shehia**      **Assessment on emergence center which the community uses in a time of emergence**

	Yes	No	Number of Emergence Center
<b>Sebleni</b>	0	200	0
<b>Nyerere</b>	0	200	0
<b>Kwahani</b>	35	161	4
<b>Shangani</b>	60	120	20
<b>Mchangani</b>	35	130	35
<b>Kikwajuni_juu</b>	8	192	1
<b>Chumbuni</b>	0	200	0
<b>Kwabinti</b>	0	200	0
<b>Hamrani</b>			
<b>Miembeni</b>	3	197	1
<b>Mwembeleadu</b>	3	197	1
<b>Media Score</b>	144	1797	62

*Table 9: Assessment on emergence center which the community uses in a time of emergence*

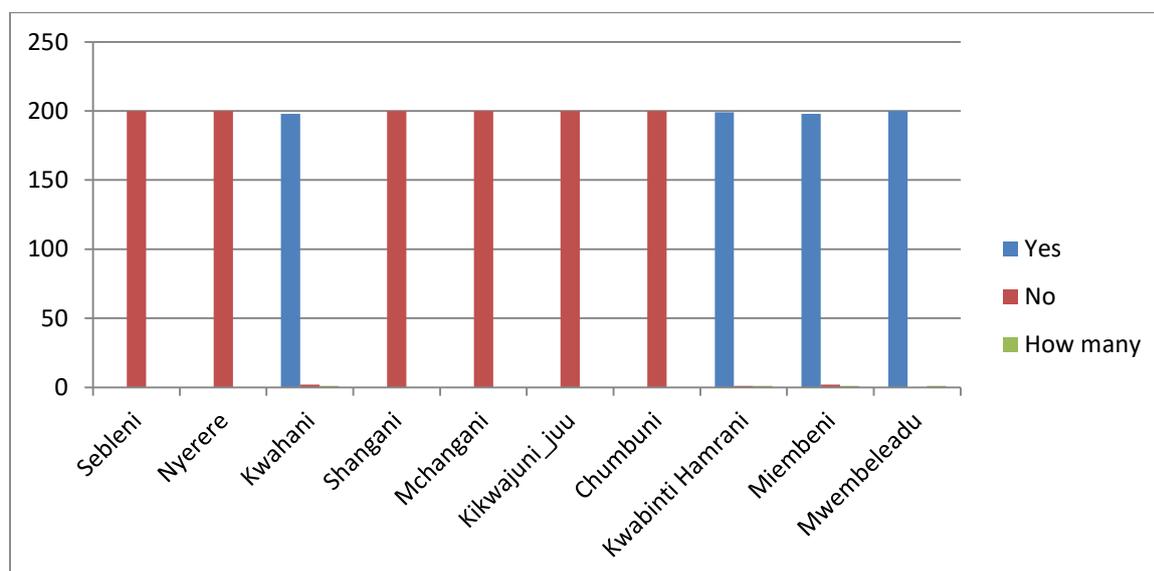


*Figure 9: Assessment on emergence center which the community uses in a time of emergence*

## 2.2.10 Police Center

Wards/ Shehia	Assessment on Police center in your shehia		
	Yes	No	How many
Sebleni	0	200	0
Nyerere	0	200	0
Kwahani	198	2	1
Shangani	0	200	0
Mchangani	0	200	0
Kikwajuni_juu	0	200	0
Chumbuni	0	200	0
Kwabinti Hamrani	199	1	1
Miembeni	198	2	1
Mwembeleadu	200	0	1
<b>Media Score</b>	<b>795</b>	<b>1205</b>	<b>4</b>

*Table 10 : Assessment on Police center in your shehia*



*Figure 10: Assessment on Police center in your shehia*

Community life improvement built on the socio-economic infrastructures and facilities, 86% of the wards mapped lack the important facilities like Police center, emergence center and Early warning facilities hence there few and in some place have nothing facilities.

## CHAPTER THREE

### RECOMMENDATION & CONCLUSION

#### 3.0 RECOMMENDATION

**Due to the high score showed in all ten (10) wards indicates that** faces challenges such as floods, extreme heats, changing rainfall patterns and other disaster risk impacts. These changes affect socio- economic activities such agriculture, water availability, ecosystems, people's livelihoods, Vulnerability insecurity is high in many of the mapped areas with susceptible to insecurity, extreme heat and flooding.

In regard to the region mapped where the impacts of climate change are most severe, the following are the **critical recommendations** that can help to mitigate and adapt the impacts of climate change as well elucidated herein above these recommendations are essential for vulnerable communities facing the climate crisis:

**Proper Information Delivering:** Access credible and accurate climate information. Aid workers, community leaders, and individuals need to understand the realities of climate change and its local effects. Being informed helps prevent or address the consequences<sup>1</sup>.

**Prepare and develop Emergencies plans, centers and facilities:** Even if global warming is limited to 1.5°C above pre-industrial levels many people will still lack healthcare, shelter, and food during disasters. Often have cramped, hot conditions that lead to outbreaks of communicable illnesses. Providing adequate healthcare services and addressing mental and physical health needs is crucial.

**Promote Climate-Resilient Infrastructure:** Developing countries need urgent support to adapt to climate change. Financing targeted infrastructure projects and sharing risk through financial markets can enhance resilience in vulnerable regions.

**Capacity Building and raising awareness to the Community.** During the both Community Mapping and CEA was discovered that the community by 75% are not aware and have no capacity to adapt and mitigate the impacts of climate change. Hence it is recommended to build their capacity and raise awareness will raise the adaptive capacity and resilience.

**Development of Innovative Programs to the communities,** the lack of interactive and innovative programs to the community which will come to solve community's challenges is highly recommended to be considered. Here means the alternative programs which will equip both community financial problems while also reduce vulnerability to the prone affected areas.

**Assess Impacts and Risks:** Understand the specific climate change impacts on ecosystems and human systems. Regular, periodically and affective assessment to the communities will help so much in resilience and proper urban plans. This knowledge informs adaptation strategies and resilient development.

**Collaborate Globally:** International cooperation is vital. Developed nations must take measures to assist climate-vulnerable countries in coping with climate impacts. This includes financial support and risk-sharing mechanisms

**Advocate for Equitable Solutions:** Prioritize equity in climate action. Vulnerable communities should not bear the brunt of climate change. Advocacy for fair and just solutions is essential

#### **4.0 CONCLUSION**

Remember, addressing climate impacts requires collective effort and a commitment to safeguarding the health and well-being of all communities, especially those most affected.

This mapping will inform stakeholders to understand their duties, responsibilities and part to play.

ZACCA is argue for more collaboration on conducting mapping to more other prone areas so as to have a data which could be used to suggest a proper solutions and plans.