



Zanzibar Food Security and Nutrition Analysis Report

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Acronyms

FAO	Food and Agriculture Organisation
IPC	Integrated Food Security Phase Classification
ISS	Information Support System
TWG	Technical Working Group
OCGS	Office of the Chief Government Statisticians
FSNA	Food Security and Nutrition Assessment
GAM	Global Acute Malnutrition

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CHAPTER ONE: BACKGROUND INFORMATION

1.1 Introduction

Zanzibar is part of the United Republic of Tanzania and consists of the two main islands, Unguja and Pemba and several small islets. Administratively, Zanzibar is divided into five regions, three of which are in Unguja (North, South and Urban West) and two regions are in Pemba Island, namely North and South Regions. The total land area of Zanzibar is 2,643 sq. km (Unguja 1,658 sq. km and Pemba 985 sq. km). Based on the 2012, National Population Census, the population of Zanzibar was estimated to be 1,303,569 in 2016, with an annual population growth rate of 2.8 percent. Population density per sq. km, is 530 persons making Zanzibar the most densely populated area in East Africa. Administratively, Zanzibar is divided into five regions; three in Unguja (Urban and West; South Unguja; and North Unguja) and two in Pemba (South Pemba and North Pemba). With exception of Urban and West Region which have three districts, each of the remaining regions is divided into two districts, totalling eleven districts for the whole of Zanzibar. Districts are subdivided further into Shehia, and each district contains a number of Shehia. Shehia is the lowest official administration unit in the country and each Shehia consists of a number of villages and households.

Zanzibar is dominated by a tropical low land humid type of climate with an average annual rainfall of 1700mm and mean maximum temperature of 26⁰C, which provide suitable conditions for production of most of tropical crops including rice, cassava, banana, maize etc. The Island cropping calendar is characterised with bimodal nature of rainfall and two cropping seasons are experienced i.e. the long rains (*Masika*) from March through to June and the short rains (*Vuli*) from October to December. Agriculture is the main economic activity accounting for more than 70 percent of merchandise export earnings. Zanzibar agriculture is smallholder (with a per capita land holding of 0.25 ha), highly dependent of rainfall and characterized with limited use of improved productivity enhancing technologies.

Frequency of rainfall irregularities has been observed in Zanzibar since 2006. The repeatedly weather shocks which are apparently increasing in frequency and severity do pose a great challenge to agricultural development and livelihood of significant proportion of the population directly or in directly engaging in agriculture. In addition, repeated shocks increase the risk of smallholder farmers falling into destitution and chronic food insecurity given the fact that they have been experiencing new shocks before recovering from the previous ones.

Recent weather extremes experienced in the isles for two consecutive cropping seasons (*Vuli* 2016 and *Masika* 2017) has left substantial number of people affected. Zanzibar experienced prolonged dry spell from July to October 2016 following delayed and below normal *Vuli* rainfall which resulted into crop failure and reduced harvest in all districts of Zanzibar. Moreover, followed *Masika* Season was as well nor normal, *Masika* rains were far above the normal resulting to floods which affected planted crops, damage of infrastructure and the outbreak of cholera which all together disrupted the livelihood of many population especially farming household. To assess the situation and understand the impact, the Revolutionary Government of Zanzibar conducted the comprehensive Food and Nutrition Assessment in July 2017 where IPC protocols were used for the first time .Five districts out of total eleven (11) districts of Zanzibar that are Micheweni and Mkoani in Pemba and Kaskazini "A", Magharibi and Kusini in Unguja were assessed.

1.2 IPC Approach

The Integrated Food Security Phase Classification (IPC) is a set of tools and procedures (protocols) to classify the severity of food insecurity using multiple data sources and methods and as such provide actionable knowledge for decision support. The IPC consists of four mutually reinforcing functions, (1) Building Technical Consensus; (2) Classifying Severity and Causes; (3) Communicating for Action; and (4) Quality Assurance, each with a set of protocols (tools and procedures). The IPC standardized scale categorizes the severity of acute food insecurity into five levels of food security (called 'phases'): Minimally

Food insecure, Stressed, Crisis, Emergency, and Famine. Table 1 below indicates the general descriptions of these phases.

The IPC consolidates wide-ranging evidence on food insecurity and nutrition to provide core answers to the following questions: i) How severe is the situation?; ii) Where are areas that are food insecure?; iii) How many people are food insecure?; iv) Who are the food-insecure people in terms of socio-economic characteristics?; v) Why are the people food insecure?. By systematizing these core aspects of food security analysis, the IPC contributes to developing standards and building capacity for food security professionals. The IPC approach is designed to be applicable in any context irrespective of the type of food insecurity, hazard, socio-economic, livelihood, institutional or data context.

Table 1: Area Phase Description in IPC

	Phase 1 Minimal	Phase 2 Stress	Phase 3 Crisis	Phase 4 Emergency	Phase 5 Famine
Phase name and description	More than four in five households (HHs) are able to meet essential food and non-food needs without engaging in unsustainable strategies to access food and income, including any reliance on humanitarian assistance	Even with any humanitarian assistance at least in five HHs in the area have the following or worse: Minimally adequate food consumption but are unable to afford some of essential nonfood expenditures without engaging in irreversible coping strategies.	Even with any humanitarian assistance at least one in five HHs in the area have the following or worse: Food consumption gap with high or above usual acute malnutrition OR Are marginally able to meet minimum feed needs with only accelerated depletion of livelihood assets that will lead to food consumption gaps.	Even with any humanitarian assistance at least one in five HHs in the area have the following or worse: Large food consumption gaps resulting in very high acute malnutrition and excess mortality OR Extreme loss of livelihood assets that will lead to food consumption gaps in the short term.	Even with any humanitarian assistance at least one in five HHs in the area have an extreme lack of food and other basic needs where starvation, death and destitution are evident (Evidence for all three criteria of food consumption, wasting and CDR is required to classify famine)

1.3 Acute Food Insecurity analysis: July – September 2017

This analysis was conducted at the workshop held from 14th – 17th July 2017. The analysis was jointly carried out by the 21 members of the Food Security and Nutrition Monitoring – IPC Technical Working Group (IPC-TWG) (Annex 1). The IPC TWG is multi-institutional team made up of more than 20 analysts from eight (8) organisations including Ministry of Agriculture, Ministry of Trade, Ministry of Health, Disaster Management Commission, Tanzania Meteorology Authority, Office of Chief Government Statisticians, NGO, UN Agencies -FAO, UNICEF and WFP. The workshop was facilitated by the FAO

The analysis covered five out of eleven total districts of Zanzibar, namely: Kaskazini A, Kusini, Magharibi, Micheweni and Mkoani. Kaskazini “A”, Magharibi and Kusini Districts are located in Unguja and Micheweni and Mkoani Districts are located in Pemba Island.

The Objectives of the analysis were:-

The main objective of the analysis was to assess the food and nutrition security situation in Zanzibar for the period of July to September and to project for up to December. The specific objectives of the assessment were

1. To recommend on the short-term interventions required to support communities facing food insecurity in study area;
2. Determine food insecurity situation of the selected districts;
3. To Communicate/provide the Acute Food Security Classification for Zanzibar for the period of July to September 2017 and giving projection from October to December 2017;

1.4 Methodology

The following main steps were undertaken in conducting acute food security analysis

1.4.1 Step 1: Data collection, compilation

Primary and secondary data were used during the analysis. Primary data; was obtained from field surveys using district and household questionnaires. Data collection exercise took place from the 5th to 7th July 2017, two teams from Unguja and Pemba comprised of staff from the Ministry of Agriculture and Ministry of Health from district and national levels. Four *Shehia* (*ward*) in each district were selected to participate in the assessment, and data collected from 240 household, 48 in each district which were purposefully selected. Households were selected based on the presence of children not more than 59 months. Secondary information and data were obtained through reviewing of recent reports and publications. The literature review allowed the team to identify supportive evidence that could be used to build context specific scenarios and identify relevant indicators.

1.4.2 Analysis

IPC analysis templates for each district filled with details of each indicator and indicative phase. For each evidence cited in IPC analysis template, information such as source of particular information, collected date and geographical coverage and the reliability score of the evidence was recorded.

1.4.3 Assigning Phase Classification and Mapping Results

After the data were entered to ISS with relevant data and information, each District was assigned a food security phase based on the data obtained. The resulting classification is illustrated in a map with colour codes for each Phase. The communication template and population table produced classifying the severity of food insecurity and nutrition of Zanzibar for the agreed periods.

Some of the limitation undermined the exercise were:

- Inadequate data at the time of the analysis on some key outcome indicators mainly on mortality and malnutrition;
- The analysis was mainly based on secondary data generated by different institutions, however most of these data were old, therefore not reflect the current situation.
- Primary data collected at household level were not precise, this mainly attribute by limited capacity of data collection skills

1.5 Summary of Findings

An estimated 120,000 (14% of the population) people are severely food insecure (IPC Phase 3 *Crisis* and Phase 4 *Emergency*) and require immediate food assistance in July to September period. This number is expected to decrease slightly to 97,000 (12% of the population) in the October to December period. The most food insecure districts are Kaskazini A, Micheweini and Magharibi. Of main concern is the population in IPC Phase 4 (Emergency) in Kaskazini A (12,400) and Micheweni (5,500) by October to December period. This indicates that urgent action is required in these areas to protect livelihoods, reduce food consumption gaps and reduce acute malnutrition to this group of people. In addition, the assessment found that majority of the population 69% (604,000) is in IPC Phase 2 (Stressed) and only able to afford minimally adequate food consumption but are unable to afford essential non-food expenditures without engaging in irreversible coping strategies (**Table 2**).

Households mostly affected were those who depend on agriculture production in both Unguja and Pemba and those impacted by floods in Pemba. The main driver of food insecurity was attributed by reduced harvest caused by poor Vuli rainfall performance in October to December 2016, with prolonged dry season experienced in January to March and heavy rainfall experienced towards the end of Masika rainfall in 2017. These repeated weather shocks lead to floods that affected the livelihoods resulting in internal displacement, destruction of public infrastructure and housing, and outbreak of diseases such as cholera which impacted on acute food security, especially poor household's particularity in Micheweni.

Cholera outbreak occurred between May and June of the current year was as a result of heavy Masika rainfall also played significant role in imposing stress to household food security. Restriction on selling of prepared foods imposed by government during that period, severely affected earnings and consequently purchasing power for household engaging in food and beverage services.

Shortage of Vuli rainfall has significantly affected household food availability at household level especially for farming households. Vuli season is the most important season for food security in Zanzibar as most of the annual crops are planted in this season. The outcome of poor performance of Vuli rains in 2016 lower production for normal production levels. According to available production data, during the first six months of the current year (2017) aggregate crop production was 43,279.43 Metric tonnes, which was low compared to Jan – June 2016. Significant low production is registered in crop like cassava, sweet potatoes, fruits and vegetables, which are not only important for household food security but are also the main source of income for household depending on selling crops in order to meet their other basic needs.

Despite this registered significant reduction on crop production, food availability at national level is not an issues given the opportunity Zanzibar has of importing food commodities from Mainland Tanzania. The biggest problem is however the price of these commodities that usually become very high. Food prices in Zanzibar are always on increasing trend, and prices of food increase on both relative and absolute terms, a situation which constantly reduce household purchasing power and consequently affects access to adequate and nutritious food.

Although in the Micheweni and Kaskazini A District there are numbers of people who cannot afford enough food, it is expected that the situation of these people will improve as these areas will be in the Clove harvesting season starting from October to December. Usually during this season, opportunities for income generation becomes many from available short term jobs along the clove picking value chain. However, given the repeated weather shocks farmers faced two consecutive farming seasons, it is recommended that the Government and implementing partners to support the affected communities by provide farming inputs.

Figure 1: Acute Food Insecurity Situation Map July 2017 – September 2017

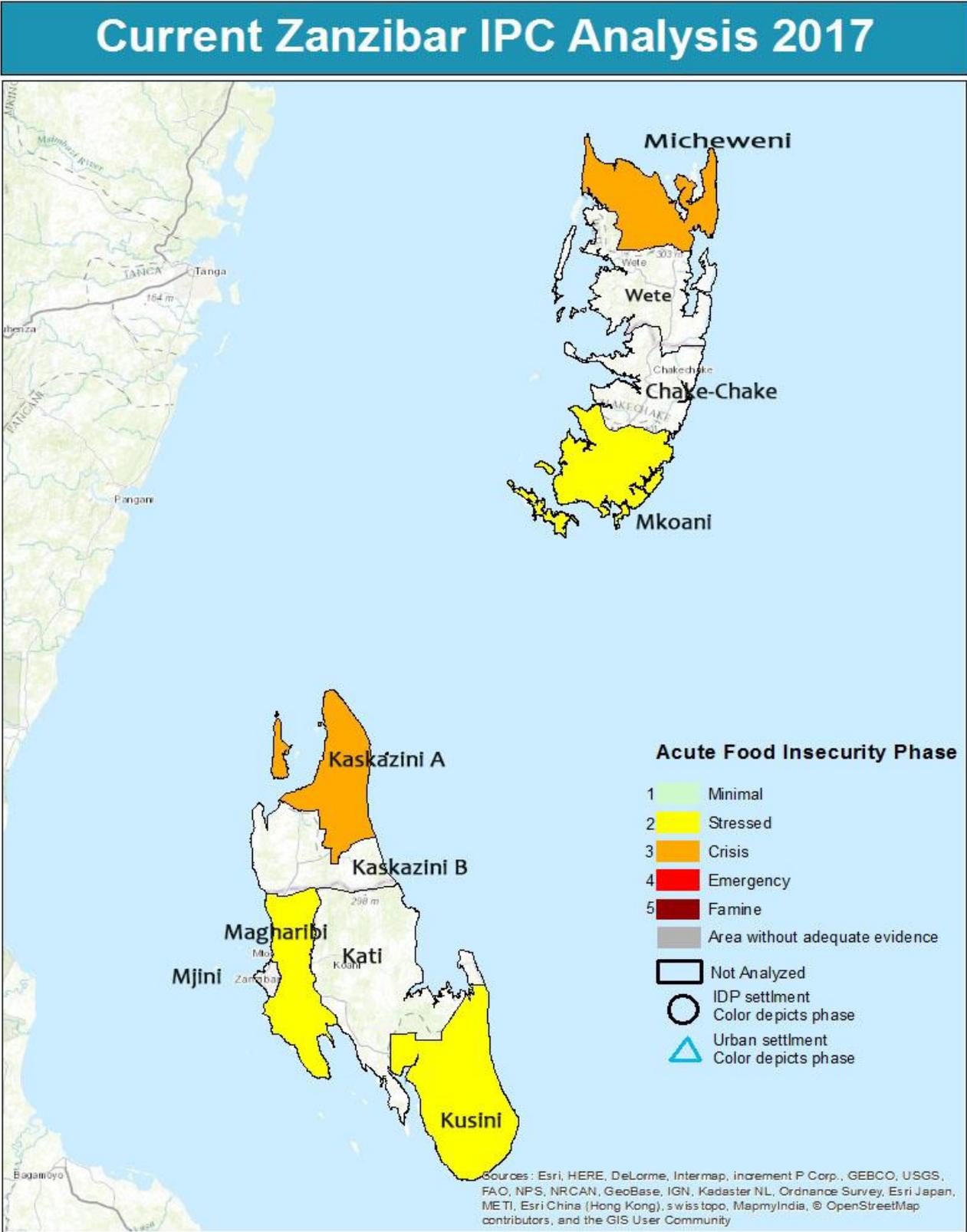


Table 2: Population table for Acute Food Insecurity Phase Classification (IPC): July to September 2017

District	Population 2017 (Projected)	Period	Population in each phase									
			Phase1		Phase 2		Phase 3		Phase 4		Phase 3 and worse	
			%	No.	%	No.	%	No.	%	No.	%	No.
Kusini	43,369	Current	70%	30,000	20%	9000	10%	4,000	0%		10%	4,000
	43,369	Projected	70%	30,000	20%	9000	10%	4,000	0%		10%	4,000
Kaskazini A	124,134	Current	15%	19,000	60%	74,000	15%	19,000	10%	12000	25%	31,000
	124,134	Projected	15%	19,000	55%	68,000	20%	25,000	10%	12000	30%	37,000
Mkoani	103,400	Current	25%	26,000	70%	72,000	5%	5,000	0%		5%	5170
	103,400	Projected	25%	26,000	70%	72,000	5%	5,000	0%		5%	5,170
Micheweni	110,788	Current	15%	16,000	55%	61,000	25%	28,000	5%	6000	30%	33,000
	110,788	Projected	15%	16,000	60%	66,000	25%	28,000	0%		20%	28,000
Magharibi	457,256	Current	10%	46,000	80%	366,000	10%	46,000	0%		10%	45,726
	457,256	Projected	10%	46,000	85%	389,000	5%	23,000	0%		5%	23,000
TOTAL	838,947											
Aggregate Population Current			137,000		582,000		102,000		18,000		120,000	
Aggregate Population Projected			137,000		604,000		85,000		12,000		97,000	
Aggregate Percentage Current			16%		69%		12%		2%		14%	
Aggregate Percentage Projected			16%		72%		10%		1%		12%	

1.5.1 Immediate causes to Food Insecurity in Assessed Districts

- i. Poor crop harvests and low food stock at household level caused by poor Vuli rainfall performance in 2016 and prolonged dry spell experience earlier in 2017;
- ii. High food prices coupled with low household incomes reducing household purchasing power and consequently affects access to adequate and nutritious food;
- iii. Floods - Following the Masika rains, floods affected the livelihoods resulting in internal displacement, destruction of infrastructure, housing which impacted on acute food security (availability, access and utilization), especially for poor households

1.5.2 Main underlying Factors

- i. High dependency of rain fed agriculture
- ii. Low income level
- iii. Low purchasing power
- iv. Food accessibility is a major limiting factor to household food security: although there is functional market at proximity nearby where households can buy food, the ability and flexibility of households to achieve an adequate level of consumption is constrained by higher poverty levels, low household income that lead to low purchasing power and hence affecting access to food. Access to adequate food is undermined further by the prevailing higher dependency on food purchases. Despite the general levels of households own food production being low, food purchase dependency is influenced by food consumption preferences which favour a level of consumption of rice and wheat, which are not strong production points in the district
- v. Food utilisation is minor limiting factor to achieving food security: access to adequate and nutritious food is constrained by higher food prices. There is high intake of Cereals (carbohydrates), and fat, and limited use of protein source food, which partly driven by limited knowledge on nutrition. Food availability is minor limiting factor to achieving food security: at the time of the analysis households were expecting to have Masika Harvest (especially rice) which projected to be adequate, there is a possibility that between August to September food purchases will be reduced.

Risk factors to Monitor

- i. Performance of the Vuli season
- ii. Increasing food prices
- iii. Poor food utilisation

CHAPTER TWO: DISTRICT FINDINGS

2.1 Micheweni District

2.1.1 Area Description

Micheweni district is located in Northern parts of Pemba, and is one of the district in the North Region of Pemba bordering with Wete district in the southern sides. Micheweni covers an area of 241 km² and the current population is estimated at 110,788 people. The district is classified with three livelihood zones, namely (i) Zone 1: semi coral fishing livelihood which is characterised by parches of arable lands in between coral areas with unreliable rainfall; (ii) Zone 2: deep fertile soil without fishing: an agricultural area with good soil and reliable rainfall; and (iii). Zone 3: deep fertile soil with fishing: an area with fertile soil, reliable rainfall and have access to sea. Farming activities are mainly practices in Zone 1 and 2, while in Zone 3 farming is constrained by limited access to land as a significant portion of the land is made up of the coral based infertile soil. The main source livelihoods in Zone 3 are selling of charcoal and firewood obtained from mangrove forest as well fishing.

2.1.2 Hazard and vulnerability

Major hazard reported was floods resulted from heavy Masika rainfall experienced in April and May 2017 which caused destruction of household, road infrastructure, landslides and education institutions. It also caused death of some livestock. The Floods affected 56% of farming household in the district. Masika rainfall in 2017 (March - June) characterised by two extreme weather conditions which adversely affected the cropping season, Masika rain started late affecting most of planted crop by prolonged dry spell. In addition to that, at the middle to the end of the season rainfall was high with records of above the average level, as such affected agricultural areas due to floods and crop performance in general. Heavy Masika rains experienced in 2017 is an attribution of the prolonged risk that farmers have experienced since the Vuli season in 2016. The Vuli cropping season severely affected by inadequate rainfall hence affecting crop performance and production in general.

2.1.3 Food availability

Due to erratic rains experienced in Vuli 2016, there was a significant reduction in the production of crops especially cassava, fruits and vegetable that are used as cash crops. Majority of farming households generates income from selling of these commodities as such are able to access/purchase food (eg rice, sugar, wheat flour) and other basic needs. The Food Security Assessment conducted July 2017 found that about 50% of responded household reported to have food deficit while those reported to have sufficient and surplus food are 44% and 6% respectively. Despite registered low domestic production and insufficient food availability at household level, the general food availability at district and national level is good. Food importation trend for staples has been good since January 2017, and amount of imported foods are above the national requirements. Good road networks allows for easy movements of food commodities from one locality to another.

However, food availability is expected to improve in the month of October to December as farmers are likely to have some stock from Masika harvest between August and October. Household stocks expected to deplete between November and December, and as expected food purchases will be the main source of food during this period.

2.1.4 Food Accessibility

Prices of key food commodities have been steadily increasing since January 2017 due to poor Vuli harvest increasing household share of income spending on food as reported by 90% of the households spend more than half of the household income on food, while 85% of the assessed population reported food prices were above normal despite being accessible at proximity.

Food prices expected to decrease between August and September following Masika Harvest and food price trend expected to increase during the projected period. Micheweni District has higher dependency on food purchases, about 65% of total food consumed are purchased while food from own production accounts to only 25%. As food prices likely to increase during projected period, it is expected that household will still experience difficulty in accessing adequate food given the limited flexibility of their income. However, opportunities for household in Micheweni to generate more income exists following the coming Clove harvesting season which will last for three month from August to end October.

2.1.5 Food Consumption and Utilisation

Utilization of food for most households is generally acceptable as evidenced by higher proportion of population reported to consume more than four groups of food and have little hunger (85% and 90% respectively). Micheweni district has good access to clean and safe water, and proportion of households who have access to well and tap water are 63% and 38% respectively. The average water consumption in Micheweni district is high with per capita consumption of 19 litres. This indicates that the District meets the WHO recommended 15 litres minimum water requirement per person per day. The average time of the household to fetch water is 7 minutes. Household hunger scale results show 75% of the assessed households had no hunger (IPC phase1), 12.5% had minimal hunger (IPC phase 2) and the remaining 12% were in moderate hunger (IPC phase 3).

2.1.6 Food stability

The cropping calendar indicates that between July to September is a period for Masika harvest; therefore food security situation is expected to remain stable during this period and household will get relief/recover from significant food shortage experienced during Vuli harvest (January – March).

The food security situation is expected to temporarily deteriorate during the lean period (October to November) with households reduce meal frequency and/or diversity. However, as the lean period ends, some harvest of fruits, maize, cassava would be ready for consumption. Similarly, by the end of the year clove harvesting season would have started.

2.1.7 Nutrition status and mortality

As per the July 2017 Food Security Assessment the proxy GAM (MUAC) for the all five studied districts was 1.7% (1.1- 2.7). The proxy SAM was 0%. Although the data quality was not good the cumulative prevalence of acute malnutrition in the five districts was normal. There is no recent available evidence of under-five mortality rate and crude mortality rate within the district. However according to Tanzania Demographic and Health Survey 2015/16 the under-five mortality rate declined from 147 per 1000 live births to 67 per 1000 live births in 1999 to 2015/16, respectively. Converting this mortality rate to number of death per 10,000 per day about 0.4 death/10,000/per day, which is below threshold.

2.1.8 Livelihood change

The district depends on multiple sources of livelihoods include fishing and petty trades, however farming is the main source of livelihood contributing to over 50% of household income and food security. The low Masika Harvest experience between January and March current year, has obviously reduced household's income sources from selling of crops. There is no significant change in livelihoods reported during study period. However, it was noted that households that couldn't afford enough food were coping through reducing the number of meals per day, reducing meal portion and others have resorted to consuming less preferred and less expensive foods. The assessment of livelihood change reported 48% of the households in Micheweni district were employing Emergency coping, without any interventions resulting to depletion of strategies and assets hence very high food consumption gaps.

2.1.9 Overall food security situation

The district is classified in phase 3 (crisis). 25% (27,697) of the assessed population in the district are in Crisis level, 5% of them were in Phase 4 (Emergency); however, it is anticipated that they will shift back to crisis after within coming three months. Classification conclusions and justification are as presented in table 3:

Table 3: IPC Population Projection in Micheweni

Phase	Current situation Confidence level of overall analysis:			Projected situation Confidence level of overall analysis:		
	Estimated population	% of total population	Justification	Estimated population	% of total population	Justification
Phase 3	28,000	25%	This population can currently afford access to food, but mostly to less nutritious foods. Their food stocks depleted earlier than normal due to low production and their purchasing power is low due to low income. The meal quantities have greatly been reduced due to limited food availability and access. They are mainly coping through reducing the number and the quantity of meals, and by consuming less expensive and less preferred food.	28,000	20%	The condition of the 5% of the population who faced food emergency is expected to improve from emergency to crisis situation. This change is expected due to the prevailing opportunity for off-farm activities offered in clove harvesting which is currently ongoing. Generally, 20% of the population in Micheweni are expected to remain in crisis between October and December as this particular period is a lean season. Most of the households are run out of Masika Harvest and farmers are preparing for Vuli cropping season.
Phase 4	5,539	5%	This population is facing food insecurity emergency due to food shortages and eroded household purchasing power, resulting from previous poor Vuli harvest	0	0	

There are some of donor and government funded interventions are ongoing Micheweni District, although operating at limited scope and coverage of the population.

Mwanzo-Bora Programs: Mwanzo Bora Nutrition Program (MBNP) is a five years USAID-supported program through Feed the Future (FtF) and Global Health Initiatives. The overall goal of the program is to improve the nutritional status of children and pregnant and lactating women in Tanzania, with specific focus on reducing maternal anemia and child stunting by at least 20% in the three Districts in Zanzibar (Micheweni, Kaskazini A and Mkoani).

2.1.10 Recommendations

- i. Protect livelihoods, reduction of food consumption gaps and reducing acute malnutrition levels Micheweni district could afford to get several types of foods due to its opportunity for fertile land and area for agriculture.
- ii. Reduce food consumption gaps by providing food assistance and save livelihood assets by providing alternative food for asset/food for work programmes to save livelihood assets.

2.2 Kaskazini A District

2.2.1 Area Description

Kaskazini A district is located in the North of Unguja Island, and is one of the district in the North Region of Unguja. It also involves Tumbatu Island and other small Island which bordered with the Kaskazini B district in the southern sides. Kaskazini A covers an area of 211 km² and the current population is estimated at 124,000 people. The district is classified with two livelihood zones, namely (i) Zone 6: fishing and tourism that is characterised by mainly coral land with pockets of shallow fertile soil; (ii) Zone 8: clove production area with fertile productive land. The main source livelihoods in the district are farming and selling of crops, fishing, petty trade and seaweed farming.

2.2.2 Hazards and Vulnerability

The Masika rainfall in 2017 (March - June) characterised by two extreme conditions which adversely affected cropping season, Masika rain started late and most of planted crops were affected by prolonged dry spell. In addition to that, at the middle to the end of the season rainfall was above the average level and caused floods that affected agriculture. According to the survey, 44% of households were affected by floods and drought and those that were not affected by any hazards were 48%. However, some crops were planted after the floods and average Masika harvest is expected.

Floods and drought experienced in Masika Season of the current year portrays a prolonged situation affecting farming households since the Vuli season in 2016. There is no evidence or released weather forecast, however indicating/alerting that the coming Vuli rains (October - December) will be low or above normal, therefore nor floods is anticipated to recur in the subsequent months of July to December. The coming Vuli (October-December) planting season is expected to have good harvest and hence food will be available.

2.2.3 Food Availability

The previous rains experienced in Vuli 2016 had caused a significant reduction in the production of crops especially fruits, vegetables, yams and banana, which play important role in sustaining food availability and household income from crop selling. The recent Food Security Assessment found that about 43% of household responded to have food deficit and 57% reported to have sufficient food. In spite of registered low domestic production and insufficient food availability at household level, the general food availability at district and national level was good following prevailing frequent inflow of food from outside the country. Good road network allows for easy movement of goods within the district.

Moreover, the coming Masika harvest which projected to be good, expected to sustain household food availability for farming household between end of July to September. However, stocks likely to reduce between October and December but food can still be accessed through market purchases.

2.2.4 Food Accessibility

Source of food in this district is mainly purchases which accounts for 85% of total food consumed and about 75% of household income spent on food. This indicates that households are vulnerable to price fluctuations. Market condition is good and food can be accessed at short distance.

Prices of some foods expected to be higher during the projected period, except for rice, wheat flour and sugar of which the government somehow controls prices. It is predicted that people will have stable access to rice, wheat flour and sugar, while access to fruits, vegetable and root crops will be limited due to price increase.

2.2.5 Food Consumption and Utilisation

Kaskazini A district have higher access to clean and safe water as evidenced by 98% of the population have access to well and tap water at shorter distance. On average households in Kaskazini A spend 125 litres of water per day, with per capita consumption of 21 litres per day.

The household dietary diversity score indicated 90% on the population consuming more than four food groups while only 10% consuming less than four foods groups. The household hunger scale reported 24% of the assessed households had no hunger, 54% of the population are in a slight hunger while 22% are between moderate and severe hunger, depicting **crisis** IPC classification.

2.2.6 Food Stability

Stable supply of adequate and nutritious food is affected by repeated weather shocks reducing level of household food supply and income. Following poor harvest from last Vuli season, lean period this year started earlier than normal. However, this year Masika harvest is anticipated to be normal, therefore food supply expected to be stabilise between July to September. Generally, the quantity of the harvest is not enough to take the household to other six months, between September and October farmers highlighted to be normal months of food shortage in Kaskazini A.

2.2.7 Nutrition status and mortality

Level of malnutrition in the district shows that about half of the population is observed to be normal (52.3%), over nutrition is observed to be high (40.9%) and under nutrition is observed to be low (6.7%) (Food security and nutrition assessment-July 2017). GAM in Kaskazini A district is 6.7%. There is no recent available evidence of under-five mortality rate and crude mortality rate. However according to Tanzania Demographic and Health Survey 2015/16 the under-five mortality rate declined from 147 per 1000 live births to 67 per 1000 live births in 1999 to 2015/16, respectively. Converting this mortality rate to under five death per day per 10,000 about 0.4 death/10,000/per day which is below threshold.

2.2.8 Livelihood change

The district livelihood is majorly dependant on farming and selling of crops, fishing, petty trade and seaweed farming for livelihoods. No livelihood change reported during study period, however low level of previous Vuli harvest might have reduce the income of households dependants of selling of crops. July assessment results, majority of households in Kaskazini A district employed livelihood applied Emergency coping (42%) while 25% applying stressed coping.

2.2.9 Overall food security situation

The district is classified in phase 3 (crisis). 15% (18,620) of the assessed population were in Crisis, 10% (12,413) of them were found to be in Phase 4. Classification conclusions and justification are as presented in table 4:

Table 4: IPC Population Projection in Kaskazini A

Phase	Current situation			Projected situation		
	Confidence level of overall analysis:			Confidence level of overall analysis:		
	Estimated population	% of total population	Justification	Estimated population	% of total population	Justification
Phase 3	18,620	15%	This population can currently afford to access food, but mostly less nutritious foods. Their food stocks depleted earlier than normal due and access to food has been reduce due to low Vuli	24,827	20%	Generally the population in Kaskazini A expected to remain in crisis between October and December as particular period is a lean season i.e. most of household are run-out of Masika

			production and household income. The meal quantities greatly reduced due to limited food availability and access. They are coping through reduction of number and quantity of meals, consuming less expensive food.			Harvest and farmer are preparing for Vuli cropping season. Hence, the number of people in Phase 3 will increase. Also, It is expected that poor households will have opportunity for employment in coming clove harvest season and eventually will improve their purchasing power and access to food.
Phase 4	12,413	10%	This population facing large food gaps. This proportion of population is above the level of population classified to live in food poverty according to HBS 2015. More people will shift to Crisis due to depletion of Masika harvests.	12,413	10%	Situation is expected not to change and population in this group likely remain in the same phase.

2.2.10 Recommendations

- i. Household in Kaskazini A districts require inputs for fishing and agriculture to help them reduce the livelihood gaps especially during the month's between (July-October). Government and implementing partners should put more emphasis on production inputs to farmers.
- ii. Protect livelihoods, reduction of food consumption gaps and reducing acute malnutrition levels Kaskazini A district if given inputs for fishing and agriculture will help them reduce the livelihood gaps and diversify their food especially during the month's between (July-October).
- iii. Reduce food consumption gaps by providing food assistance and save livelihood assets by providing alternative food for asset/food for work programmes to save livelihood assets.

2.3 Mkoani District

2.3.1 Area Description

Mkoani district lies in Southern part of Pemba covering an area of 207 km². It is bordered by Chake chake district to the North and the Indian Ocean to the South, West and East. The district is classified with five-livelihood zones namely semi-coral fishing, semi fertile soil with no fishing, deep fertile soil with fishing and Pemba Peri-urban. The fertile soil is mainly used for the production of variety of tropical crops, most importantly the export products of cloves from which a large proportion of the Zanzibar export earnings comes.

2.3.2 Hazard and Vulnerability

According to the recent household food security and nutrition assessment July 2017, drought and floods are the major hazards reported. Households affected by floods in Mkoani were 88%, those affected by both floods and drought 10% and household not affected by any hazard was reported to be only 2%. Similar to other districts, the level of Masika rainfall in 2017 (March - June) characterised by two extreme conditions which adversely affected cropping season, Masika rains started late and most of planted crop affected by prolonged dry spell, at the middle of the season rainfall was higher and caused floods which affected agricultural areas and infrastructures. Vuli cropping season was bad due to lack of adequate rainfall that has

greatly affected crop performance and production in general. The coming Vuli planting season expected to be normal.

2.3.3 Food Availability

Food availability from own production have severely reduced due to poor *Vuli* harvest driven by poor rainfall performance. Significant low production recorded in crops like cassava, sweet potatoes, fruits and vegetable. The poor *Vuli* harvest also affected household food availability and income generated from selling of crops. The recent Food Security Assessment found that 69% of households responded to have food deficit and 31% reported to have surplus food. Almost all assessed population (99%) reported to experience food shortage between July and August.

Despite the registered low production, food from external sources (importation) is expected to continue being available. Sufficient amount of imported food has been registered since January 2017.

Generally, food availability likely to improve in the month of October to December as farmers are expected to harvest some crops planted during Masika season especially crops such as cassava and yams. During the lean period majority of farmers will access food through purchases.

2.3.4 Food Accessibility

The recent Food Security Assessment revealed that 90% of responded population in Mkoani District spend 75% of their income and more on food while 15% spend half of their income on food. The District is also vulnerable to food price increase similar to other districts. Based on Household Hold Budgetary Survey 2015, people in Mkoani purchase 75% of consumed food while own production fulfil only 15% of food needs.

Food accessibility is expected to decrease in the next three months due to price increases, except for commodities like rice, wheat flour and sugar. In addition, within the Mkoani district market availability is accessible as nearly all farmers reported that they are near to the market.

2.3.5 Food Consumption and Utilisation

Mkoani district have higher access to clean and safe water, the July 2017 assessment report indicated that 98% of the population have access to well water. On average households in this district spend 137 litres of water per day, with per capita consumption of 18 litres per day which is above recommended threshold.

The HHS showed that no people in Mkoani district are in the state of no hunger. 100% of the households are at a 'little or no hunger. The survey also showed that 96% of the households in Mkoani eat 4 food groups and above. Only 4% of the households are eating less than 4 food groups.

Moreover, during October- December period access to water expected to be improve given the fact that the projected period fall under the *Vuli* season as majority fetch their water from well.

2.3.6 Food Stability

The assessment revealed that, in Mkoani the months of food shortage starts normally between June to August, as farmers started to deplete their food stocks. This is also due to repeated weather shocks reduced level of household food supply and income. Following poor harvest from last *Vuli* season, lean period this year started earlier than normal. However, this year Masika harvest is anticipated to be normal, therefore food supply expected to stabilise between July to September.

2.3.7 Nutrition and Mortality

As per the July 2017 Food Nutrition assessment the proxy GAM for the five districts was 1.7% (1.1- 2.7). The proxy SAM was 0%. Nutrition data quality was not good, based on cumulative prevalence of the five districts acute malnutrition is low. Prevalence of acute malnutrition likely to remain below alarming rates.

2.3.8 Livelihood Change

The district depends on multiple sources of livelihoods including farming, fishing and petty trades which both offer opportunities of income generation. There was no significant change in livelihoods reported during study period of July 2017. This assessment revealed that 85% of the households applied stressed livelihood coping reducing ability to invest in their livelihood.

2.3.9 Overall food security situation

The district is classified in IPC phase 2 (stressed) where 70% (72,380) of the assessed population were in stressed level, 5% (5,170) of them in crisis. Classification conclusions and justification are as presented in table 5:

Table 5: IPC Population Projection in Mkoani

Phase	Current situation			Projected situation		
	Confidence level of overall analysis:			Confidence level of overall analysis:		
	Estimated population	% of total population	Justification	Estimated population	% of total population	Justification
Phase 2	72,380	70%	This population have acceptable food consumption score with a predominance intake of cereals and sugar, and limited intake of protein rich foods. High food prices significantly reduces consumption of healthy diet	72,380	70%	Mkoani households expected to remain in stress between October and December as particular period is a lean season i.e. most of household are out of Masika Harvest and farmer are preparing for Vuli cropping season. It is expected that poor households will have opportunity for employment in coming clove harvest season and eventually will improve their purchasing power and access to food.
Phase 3	5,170	5%	This population are marginally able to meet minimum food needs.	5,170	5%	No change and population in this group expected to remain the same

2.3.10 Recommendations

- i. Disaster risk reduction and to protect livelihoods
- ii. Protect livelihoods, reduction of food consumption gaps by provision of agricultural inputs and reducing acute malnutrition levels

2.4 Kusini District

2.4.1 Area Description

Kusini District of Zanzibar is situated on south of Unguja Island with an area of 361 Km². The district has two main livelihood zones, semi coral and fishing and fishing and tourism (HEA 2003). The district has the largest forest in Zanzibar Jozani. The main economic activities are fishing, farming, selling of firewood and charcoal and seaweed farming. Other income generating activities include beekeeping, tourism. The main agricultural produce from the districts are cassava, yams, pigeon peas, green grams and citrus crops mainly lemons. Other crops produced are vegetables, rice, sorghum, maize, bananas and mangoes. Almost 80% of the

district land is coral. There are two main rainy seasons Masika (Long rains) which falls in March to May while Vuli (short rains) precipitate on October to December, the Vuli rains are not reliable in Kusini district.

2.4.2 Hazard and Vulnerability

As reported by the recent Food security and Nutrition Assessment, major types of hazards reported were floods as a result of heavy Masika rainfall experienced in April and May 2017 which caused destruction of household, road infrastructure (roads, houses) and landslides, destruction of road infrastructure (roads, houses). It has also caused death of livestock. Floods in Kusini district affected 15% of farming household in the district and 4% were affected by drought. The Masika rainfall in 2017 (March - June) was characterised by two extreme conditions which adversely affected cropping season. Firstly late onset and most of planted crop affected by prolonged dry spell. Secondly, at in the middle to the end of the season, rainfall was high and recorded above average level, affecting agricultural areas due to heavy floods and crop performance in general.

Heavy Masika rains experienced in 2017 is continuation of the crisis that farmers have been experiencing since the Vuli season in 2016. The Vuli cropping season in 2016 severely affected crop performance and production due to inadequate rainfall.

2.4.3 Food Availability

Due to erratic rains experienced in Vuli 2016, significant reduction in the production of crops especially fruits, vegetables, yams and banana, which play important role in sustaining food availability and household income from crop selling. The recent Food Security Assessment found that about 33% of household responded to have food deficit and 54% reported to have sufficient food. In spite of registered low domestic production and insufficient food availability at household level, the general food availability at district and national level was good following prevailing frequent inflow of food from outside the country.

Moreover, in the Kusini district, the coming Masika harvest which is projected to be good, will ensure household food availability for farming household between end of July to September. Food availability from own production expected to lessen between October and December but food can still be accessed through market purchases.

2.4.4 Food Accessibility

The recent Food Security Assessment revealed that about 57% of responded population in Kusini District spend 75% of their income and more on food while 33% spend half of their income on food. The District is also vulnerable to food price increase. Based on Household Hold Budgetary Survey 2015, people in Kusini purchase 79% of consumed food while own production fulfil only 8% % of their food needs.

In terms of availability of food market, majority of the assessed households (92%) responded that market were available within a short distance. However, prices of some foods expected to be increase during the projection period (October- December). Therefore, people will have stable access to rice, wheat flour and sugar, while access to fruits, vegetable and root crops will be limited due to price increase. .

2.4.5 Food Consumption and Utilisation

Kusini district, households accessing clean and safe water with 74% of the population access tap water, and other 17% from wells. On average, the assessment shows that households in this district utilize 18 litres per person per day. This level is above the recommended level by WHO.

The Household Hunger Score (HHS) showed that majority of people in Kusini district are in the state of little or no hunger with (78%) of the assessed household had no hunger, 14% had little hunger and 8% household reported to be in moderate hunger state.

2.4.6 Food Stability

Stable supply of adequate and nutritious food is affected by repeated weather shocks reducing level of household food supply and income. In Kusini District, majority of the households reported to have food shortage between July and August similar to other districts. Majority of farmers their food stocks will deplete in the analysis period. However, the District does not entirely rely on food purchase but also own production.

2.4.7 Nutrition and Mortality

As per the July 2017 Food Security Assessment the proxy GAM for the all five studied districts was 1.7% (1.1- 2.7). The proxy SAM was 0%. Although the data quality was not good the cumulative prevalence of acute malnutrition in the five districts was normal. There is no recent available evidence of under-five mortality rate and crude mortality rate. However according to Tanzania Demographic and Health Survey 2015/16 the under-five mortality rate declined from 147 per 1000 live births to 67 per 1000 live births in 1999 to 2015/16, respectively. Converting this mortality rate to under five death per day per 10,000 about 0.4 death/10,000/per day was calculated which is below threshold. It is anticipated that these findings apply to Kusini district

2.4.8 Livelihood Change

This assessment revealed that majority of the households (47%) applied stressed coping while 2% of the assessed population used emergency coping. Nonetheless, the district depends on multiple sources of livelihoods including farming, fishing and petty trades both offering opportunities of income generation.

2.4.9 Overall food security situation

The district is in phase 2 (stress), 20% (8,674) of the assessed population in Kusini district were in phase 2 (stressed), 10% (4,337) in Phase 3, no change is expected in the coming three months. Classification conclusions and justification are as presented in table 6.

Table 6: IPC Population Projection in Kusini

Phase	Current situation			Projected situation		
	Confidence level of overall analysis:			Confidence level of overall analysis:		
	Estimated population	% of total population	Justification	Estimated population	% of total population	Justification
Phase 2	8,674	20%	This population have acceptable food consumption score with a predominance intake of cereals and sugar, and limited intake of protein rich foods. Higher food prices significantly reduces consumption of healthy diet	8,674	20%	In general the District is expected to remain in the same Phase between October to December. This is due to the fact that, i.e. most of household depends on their daily food consumption from purchase and not own production. The level of rains for current are run-out of Masika Harvest and farmer are preparing for Vuli cropping season.
Phase 3	4,337	10%	This population are marginally able to meet minimum food needs.	4,337	10%	Situation is not expected to change and population in this group expected to remain the same

2.4.10 Recommendations

- i. Disaster risk reduction and to protect livelihoods

- ii. Protect livelihoods, reduction of food consumption gaps by provision of agricultural inputs and reducing acute malnutrition levels

2.5 Magharibi District

2.5.1 Area Description

West District (Magharibi) is situated in Unguja Island (one of the two main islands of Zanzibar, the other one being Pemba). The area size is 208 km². It is largely characterized by fishing, tourism and clove production livelihood zones. It has a total of 40 administrative Shehia (villages), of which three are under Zone 6 (fishing and tourism), six Shehia under Zone 7 (semi coral fishing), 13 Shehia are under Zone 8 (clove production) and 18 Shehia are under Zone 9 (Unguja Peri-Urban). West District shares borders with Urban District in the North, Central district in the east and the Indian Ocean in its West and South.

2.5.2 Hazard and Vulnerability

Floods was the only major hazard reported during the assessment period. Households affected by floods in Magharibi was 81%, while none affected by drought. In Magharibi District where Zanzibar Town is located constitutes of main markets and infrastructure that forms a dependency on food purchase.

In Magharibi, small area of agriculture production was affected, however, infrastructure (roads, houses) have been critically damaged which caused temporary displacement of some households and families. The forecasted Vuli rainfall for October to December season is anticipated to be below compared to previous season of April –May Masika Season.

2.5.3 Food Availability

In Magharibi District less than 5% of food in Magharibi comes from own production, meanwhile more than 88% of food consumed is coming from purchases. This District has the largest number of population in Zanzibar. More than 70% of all foods eaten in this District is being imported from outside.

Moreover, similar to above district Food availability from own production have severely reduced due to poor Vuli harvest driven by poor rainfall performance. Significant low production was recorded especially crops like cassava, sweet potatoes, fruits and vegetables. The poor Vuli harvest has reduced household food availability and income generation from selling of crops. Due to limited area for agriculture in the district, majority of the farmers in Magharibi harvested less than expected. The recent Food Security Assessment indicated that 51% of households had food deficit and 15% reported to have surplus food during the study period. Despite the registered low production, food availability from external source (importation) is available and expected to continue being available. Sufficient amount of imported food was registered since January 2017. Food availability is not foreseen to be a problem in the month of October to December as farmer are expected to have some crops planted in Masika season especially for crops like cassava and yams. During projection, being lean period normally majority of farmers have no or limited food stock, accessing food through purchases.

2.5.4 Food Accessibility

Similar to other districts, 58% of responded population in Magharibi District spend 75% of their income and more on food while 29% spend half of their income on food, indicating dependency on food purchases

Magharibi district is also vulnerable to food price increase. According to the Household Hold Budget Survey 2015, people in Magharibi purchase above 80% of consumed food while own production fulfil only less than

5% of their food needs. In terms of access to markets in Magharibi district, 96%) reported to have access to nearby markets.

2.5.5 Food Consumption and Utilisation

Magharibi district has very high access to clean and safe water with 97% of the population having access to well and tap water at short distance. On average households in Magharibi spend 133 litres of water per day, with per capita consumption of 18 liters per day.

Household hunger scale (HHS) shows that 2% of the households in phase 4, 15% are between phase 2 and 3, while 83% in phase1.

2.5.6 Food Stability

In Magharibi District, majority of the households reported to have food shortage between June and September. Most of the farmers have their food stock depleted in this time, however, the District is dependent on food purchase and not own production.

2.5.7 Nutrition and Mortality

As per the July 2017 Food Nutrition assessment the proxy GAM for the five districts was 1.7% (1.1- 2.7). The proxy SAM was 0%. Nutrition data quality was not good, based on cumulative prevalence of the five districts acute malnutrition is low. Prevalence of acute malnutrition likely to remain below alarming rates.

2.5.8 Livelihood Change

This assessment indicated that (19%) of assessed households applied emergency livelihood coping while (35%) were in stressed, this group is vulnerable to deteriorate to emergency if no intervention is done. In addition, the district depends on multiple sources of livelihoods including farming, fishing and petty trades that both offer opportunities of income generation.

2.5.9 Overall food security situation

The district is classified in phase 2 (stressed), with 80% (365,805) of the assessed population were found to be in Phase 2, 10% (45,726) be in phase 3. Classification conclusions and justification are as presented in table 7:

Table 7: IPC Population Projection in Magharibi

Phase	Current situation			Projected situation		
	Confidence level of overall analysis:			Confidence level of overall analysis:		
	Estimated population	% of total population	Justification	Estimated population	% of total population	Justification
Phase 2	365,805	80%	This population have acceptable food consumption score with a predominance intake of cereals and sugar, and limited intake of protein rich foods. Higher food prices significantly reduces consumption of healthy diet	388,668	85%	The District is expected to remain in the same Phase between October to December; however, the percentage of people who are marginally not able to afford food needs will decrease. The period between October to December no destruction from rains is expected. This will lead to well-balanced livelihood within district
Phase 3	45,726	10%	This population are marginally able to meet minimum food needs.	22,863	5%	Situation expected to change and population in this group expected

						to improve. Few number of people will shift back to Phase 2.
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2.5.10 Recommendations

- i. Disaster risk reduction and to protect livelihoods
- ii. Protect livelihoods, reduction of food consumption gaps by provision of agricultural inputs and reducing acute malnutrition levels

Annex 1: List of Participants

SN	Name	Organization	Location
1	Ahmed Gharib	Food Security and Nutrition Analyst	Unguja
2	Shaaban H. Ramadhani	ZDMC	Unguja
3	Khamis Arazak Khamis	Zanzibar Disaster Management Commission	Pemba
4	Idrisa Abdul Wakil	Ministry of Agriculture - Department of Livestock	Unguja
5	Saleh Idrisa	Department of Agriculture - Statistician	Unguja
6	Ame Khamis Ame	Ministry of Agriculture	Unguja
7	Fatma Ali Said	Ministry of Health - Nutrition	Unguja
8	Mwalimu Juma Moh'd	OCGS – Agricultural Statistics	Unguja
9	Abdulmajid Jecha Ramadhan	OCGS –	Unguja
10	Abdul Karim Mussa Said	Partnership in Nutrition Tanzania -PANITA (Zanzibar Coordinator).	Pemba
11	Mzee Moh'd Mzee	Planning Commission - Min of Finance	Unguja
12	Ali Moh'd Omar	Head of Food Security and Nutrition and Early warning System	Pemba
13	Moh'd Mlekwa Yussuf	Ministry of Agriculture	Unguja
14	Miraji Ali Shaali	DADO -Micheweni	Pemba
15	Mohamed Ali Abdalla	Ministry of Agriculture - FSND	Pemba
16	Raya Mkoko Hassan	Ministry of Health – Nutrition unit	Pemba
17	Asya Omar Hamad	Metrology	Unguja
18	Shamis Ali Juma	Metrology	Pemba
19	Anisa Kassim	Market and Trade Analyst	Unguja
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28	Ismail Kassim	UNICEF	South Sudan
29	Nancy Koech	FAO	Somalia
30	Andrew Makachia	WFP	Somalia