THE UNITED REPUBLIC OF TANZANIA

Integrated Food Security and Nutrition Assessment Report of the 2009/10 Main (*Masika/Msimu*) Season for the Market Year 2010/2011

FINAL DRAFT

Coordinated by the Disaster Management Department - Prime Minister's Office and The National Food Security Division - Ministry of Agriculture Food Security and Co-operatives, Dar es Salaam

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TABLE OF CONTENTS

ACKNOWLEDGEMENTS iii

EXECUTIVE SUMMARY iv

1. INTRODUCTION 1

1.1 Background 1

1.2 Objectives of the Assessment 1

1.3 Methodology 1

2. FOOD SECURITY AND NUTRITION ANALYSIS 5

2.1 Key Sector Analysis 5

2.2 Food Availability and Access 8

3. VULNERABILITY ASSESSMENT RESULTS 9

3.1 Vulnerable Population 9

3.2 Nutritional Status of Children aged 6– 59 months 10

3.3 Other Indicators ..... **Error! Bookmark not defined.**

4. GENERAL RECOMMENDATIONS ..... **Error! Bookmark not defined.**

4.1 Immediate-term interventions 12

4.2 Medium-term interventions 12

4.3 Long-term interventions 13

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Government Ministries and Institutions: Prime Minister's Office (PMO) - Disaster Management Department, Ministry of Agriculture Food Security and Cooperatives (MAFC) - National Food Security Division, Ministry of Livestock Development and Fisheries (MLDF), Tanzania Meteorological Agency (TMA), Tanzania Food and Nutrition Centre (TFNC) and Sokoine University of Agriculture (SUA).

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International and Local Organizations (NGOs): Care International and World Vision.

Regional and Local Government Authorities: Regional Administrative Secretaries (RAS) and Regional Agriculture Advisers (RAA) in 12 regions namely: Arusha, Dodoma, Iringa, Lindi, Kilimanjaro, Manyara, Morogoro, Mtwara, Mwanza, Shinyanga, Singida, and Tabora. District Executive Directors (DEDs) and District Agricultural and Livestock Development Officers (DALDOs) and their technical staff in 28 District Councils of Babati, Bahi, Chamwino, Hanang, Iringa, Kishapu, Kiteto, Kongwa, Kwimba, Lindi , Liwale, Longido, Manyoni, Masasi, Meatu, Morogoro, Monduli, Mpwapwa, Mtwara, Mwanga, Mvomero, Nanyumbu, Ngorongoro, Nzega, Ruangwa, Same, Simanjiro, Shinyanga and two Municipal Councils of Dodoma and Shinyanga

EXECUTIVE SUMMARY

The 2010 Food Security and Nutrition Assessment report provides detailed analysis of the assessment mission in 28 District Councils and two (2) Municipal Councils in 12 regions in Tanzania Mainland. The assessment was conducted by the MUCHALI Team for two-weeks between August 30 and 13 September, 2010. The assessed regions and their districts/municipal councils in brackets are: Arusha (**Longido, Ngorongoro and Monduli**), Manyara (**Simanjiro, Kiteto, Babati and Hanang**), Kilimanjaro (**Same and Mwanga**), Shinyanga (**Shinyanga Municipal Council, Kishapu, Shinyanga and Meatu**), Morogoro (**Morogoro, and Mvomero**), Mwanza (**Kwimba**), Singida (**Manyoni**), Dodoma (**Dodoma Municipal Council, Bahi, Chamwino, Mpwapwa and Kongwa**), Iringa (**Iringa**), Tabora (**Nzega**), Lindi (**Lindi, Ruangwa and Liwale**) and Mtwara (**Masasi, Nanyumbu and Mtwara**). These district/municipal councils were identified based on the Preliminary Food Crops Production Forecast report released by the MAFC in May 2010 and infomation from other food security and nutrition stakeholders.

The objectives of the assessment were 1) to ascertain the impact of the food production shortfall from the 2009/10 season on the livelihoods and food and nutrition security among the populations in Local Government Authorities (LGAs) previously identified by the Ministry of Agriculture, Food Security and Cooperatives (MAFC), Ministry of Livestock development and Fisheries (MLDF), USAID Famine Early Warning Systems Network (FEWS NET) and other food security and nutrition agencies to experience food access problems in the 2010/11 market year; 2) to identify the food insecure and vulnerable populations resulting from the food access problems and establish the magnitude of the problem; and 3) to determine and recommend appropriate interventions for the affected populations.

The methodology employed in the 2010 FSNA involved a comprehensive livelihood-based food security and nutrition (LFSN) approach using the Integrated Food Security Phase Classification (IPC) to guide the analysis and report writing. The main livelihood systems studied in the affected areas are agricultural, agro-pastoral, pastoral and fishing. The LFSN approach involved integrated broad livelihood-based indicators such as crop, livestock and fish production, supplies and prices, nutrition, access to water, livelihood assets and coping strategies, as well as, weather parameters, particularly rainfall, and other livelihoods systems. In addition, the measurement of the mid-upper arm circumference (MUAC) was used as a proxy for the prevalence of severe acute malnutrition (SAM) and global acute malnutrition (GAM). The MUAC and oedima measurements were obtained from 8,174 children aged 6 – 59 months in the 30 Councils.

Generally, the results established significant food security and nutrition improvements among the populations in the assessed Councils and the country, at large compared to the 2009/10 market year. Subsequently, a larger part of the population in the affected Councils is likely to have fairly stable access to food at least until December 2010 and early January 2011. Additionally, the results of nutritional assessment show that overall, the prevalence of SAM (MUAC <11.5 cm)

and GAM (MUAC <12.5 cm) were low. Oedema was present in only 1.3 percent of children in the studied population.

Detailed analyses reveal that the population in four of the predominantly pastoral livelihood systems in the Councils of Longido, Monduli, Ngorongoro and Simanjiro are moderate/ borderline food insecure with high risk of falling into a worsening phase, while the population in 15 Councils are moderate/borderline food insecure with moderate to low risk of falling into a worsening phase. Further analysis indicates the population in the 11 Councils to be generally food secure with low risk of falling into a worsening phase. Additionally, previous reports had indicated that the remaining Councils, which were not, included in this assessment to be generally food secure (Table 1 and Figure 1).

The overall results established that **423,530 people** (6% of most affected population) are acutely food insecure with very low resilience, whereas **830,032 people** are moderately food insecure. Access to food for these **830,032 people** is likely to remain fairly adequate until December 2010 and January 2011, when their physical stocks and their other means for accessing food will be running low.

Access to sufficient, clean and safe water for human use was identified a chronic problem in almost all assessed Councils as most households surveyed indicated accessing water from unprotected sources, boreholes and dams, with availability worsening during dry seasons. Consequently, the amount of water consumed per person per day (PPPD) in the sampled households was below the Sphere Standard (and WHO) threshold of 15 litres, which has severe nutritional, health and care consequences to the population.

The report is recommending the following short-term, medium-term and long-term food and non-food interventions.

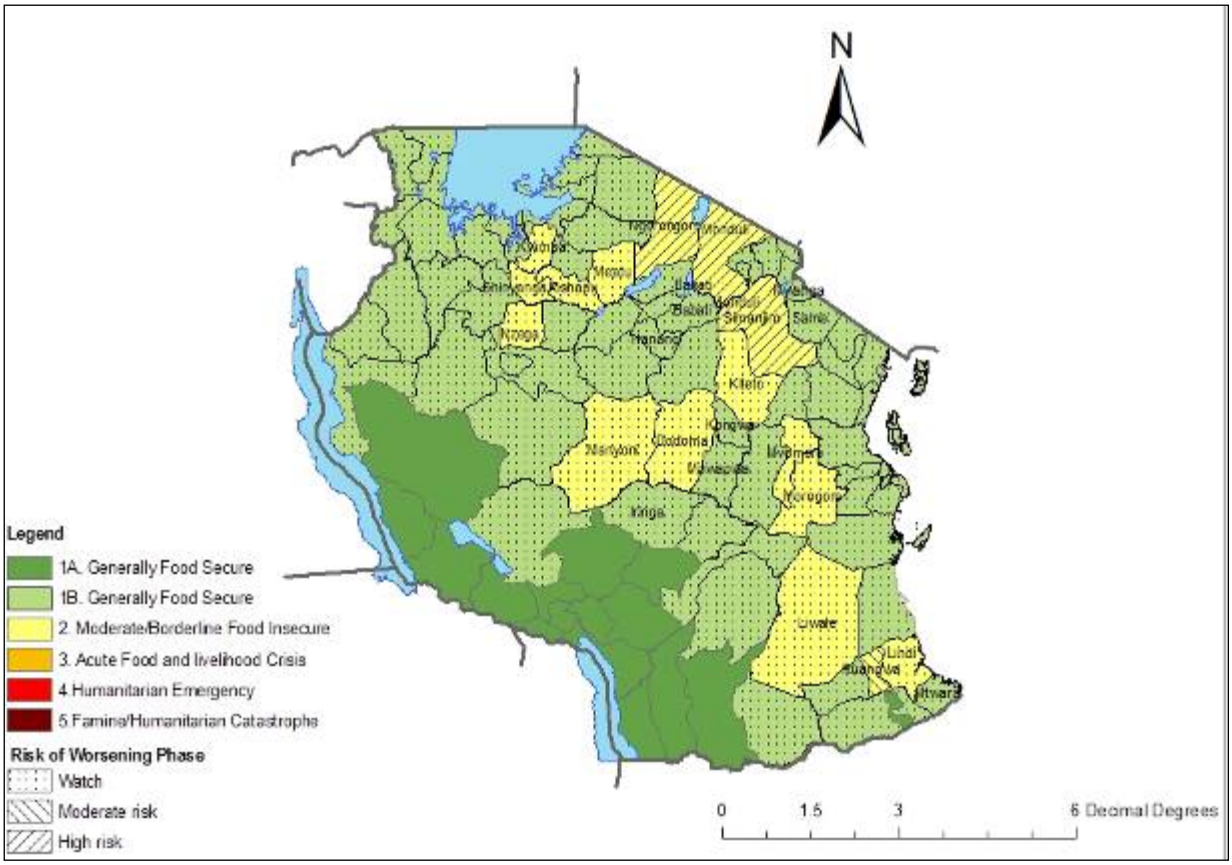
1. The identified **423,530 food insecure people require** food assistance amounting to **13,766** MT for the period of November 2010 to January 2011. Out of this, **1,376** MT are recommended for free distributions to **42,353** extremely resource weak people with low resilience; and the remaining **12,386** MT are recommended for subsidized prices for **381,177** people (Table 2).

2. The report recommends distributing **3,208** MT of different kinds of seeds (maize equivalent) to the resource week households (whose resilience is low) before their next planting season in November 2010 for the unimodal and February 2011 for the bimodal rainfall regime Councils, respectively (Table 3).

3. There is immediate need for construction and rehabilitation of water sources and better health services, which will improve water quantity and quality. Additionally, provision of household education and awareness creation on basic nutrition and water hygiene practices should be given priorities in the Councils.

4. An assessment to determine the food security and nutrition status for **the populations** who are currently moderately food insecure in January/February 2011.

Figure 1: Tanzania Integrated Food Security and Nutrition Situation Post Main Season2009/10 with Projections to February 2011



Source: MUCHALI Food Security and Nutrition Assessment, 2010

1. INTRODUCTION

1.1 Background

The Ministry of Agriculture Food Security and Cooperatives (MAFC) conducted a Preliminary Food Crop Production Forecast for 2010/2011 food security in May 2010. The report by MAFC, estimated the overall national food crop production to reach 12.825 million metric tonnes (MMT) of food, comprising of 7.698 MMT of cereals and 5.127 million MMT of non cereals. The report further established the total food requirement for 2010/2011 to amount to 11.415 MMT. A comparison of the estimated production in the 2009/10 with the 2010/2011 food requirement indicates overall, the country will attain a Food Self Sufficiency Ratio (SSR) of 112 percent. The 2010/2011 SSR is above that of the 2009/2010 consumption year, which was 102 percent, indicating a general surplus of about 1.410 MT.

Although MAFC forecasted a satisfactory overall food availability for the 2010/11 at national level, it highlighted major inter and intra-regional and district variations due to localized food crop failures of varying magnitudes. Based on this forecast and complemented by assessments of MLDF, FEWS NET and other food security and nutrition agencies, some 30 Councils in (12) regions were likely to experience food shortage and in-depth assessment was recommended to establish the specific areas affected by food shortage, the number of food insecure people and appropriate interventions in two municipalities and 28 Councils in 12 regions of Tanzania Mainland.

1.2 Objectives of the Assessment

The objectives of the assessment were to:-

(i) Ascertain the impact of the food production shortfall including other hazards on food availability, access and utilization among food insecure populations in affected areas;
(ii) Identify populations likely to experience food insecurity during the 2010/11 consumption year most vulnerable to food insecurity in the affected areas; and
(iii) Determine and recommend appropriate short, medium and long term interventions for those populations.

1.3 Methodology

1.3.1 Background and Logistics

The 2010 FSNA was organized by the national MUCHALI Team, involving a total of 16 teams, which were deployed from the national level to team up with regional and district Government officials and those from local NGOs in specific areas. The teams visited and collected information at regional, district, village and household levels using a set of questionnaires and a combination of methodologies involving a more

comprehensive food security and nutrition approach, which integrates broad livelihood-based indicators such as food supplies and prices, nutrition, access to water, livelihood assets and coping strategies. This holistic approach in food insecurity and vulnerability analysis also incorporated parameters like weather particularly rainfall; crops, livestock and fish production; nutrition, and other livelihoods systems (assets, strategies and capabilities).

The information collected were nutrition data (anthropometric measurements) by using cluster sampling techniques for the under fives and their mothers/guardians. Food availability and accessibility comprised of food crops, livestock and fisheries production, food sources and market performance. Food utilization examined dietary diversity, meal size and composition; health and sanitation including diseases (communicable and vector-borne), water quality and quantity per person per day and toilet facilities. Further information was collected on current and anticipated hazards as well as coping strategies employed by communities. In addition, information on livelihood assets in each particular district/area visited was gathered. All teams used the same set of tools to facilitate consistent information collection from the field as elaborated below.

1.3.2 Geographical coverage

In order to identify geographical areas likely to experience food shortages, villages in each district visited were classified into three categories according to crop and livestock production performance during the 2009/10 season. Levels of food production by households were used as a basic entry point for assessment of the food security situation given that agriculture and livestock constitute the main source of livelihood for most of the rural communities, thus taking into account the food security situation in pastoral and agro-pastoral livelihoods.

- Category No. 1: Acute crop failure, i.e. 0 to 30% crop and livestock production compared to normal production
- Category No. 2: Mild crop failure, i.e. 31 to 60% crop and livestock production compared to normal production
- Category No. 3: Normal crop and livestock production, i.e. 61% and above compared to normal production.

The assessment mainly focused on villages where food and livelihood security were acute (Category No. 1 above) and therefore where most households experiencing food inadequacies are likely to be found. However, category 2 villages (mild crop and livestock failure) were also considered because the resource weak households in this category may drift into food insecure category in the event of increased hazards such as food prices rising beyond affordable levels and available coping mechanisms are exhausted. Areas with near normal to normal food production were also identified but not assessed as it is assumed that people will continue to lead their normal lives. The acute food deficit villages were mapped in order to identify the agro-economic zones to which they belong. Three villages per district were then selected as representative villages for collecting information.

1.3.3 Instruments used (Interviews and questionnaires)

Interviews and questionnaires were used in each village visited. Focus group discussions were held with key informants including Village Government and opinion leaders. Thereafter, the key informants helped to group households found in their village into three (3) wealth categories namely resource weak, middle and better off, which resulted in the determination of percentages of households falling into each category. The wealth ranking categories were pre-defined based on food and livelihood security parameters like acreage under cultivation, livestock holding, type of assets owned and other key income generating activities. The different percentages of households falling in the three wealth ranks determined in the visited villages in each particular agro-economic zone (using proportional piling technique), were used to generate the overall percentages of households falling in a particular wealth category (rank) in all villages encompassed in the same agro-economic zone.

Twelve households in each village were interviewed using a semi-structured questionnaire; these households were representative of each of the identified wealth groups where four households represented each wealth rank category. Wherever necessary, the selection considered inclusion of female and male headed households independently. The core of the discussion focused on current food availability, accessibility and utilization as compared to previous seasons and normal.

For nutritional assessments, eligible sampled households were the ones with a child of less than five years of age. Data on MUAC were collected from 100 children aged 6-59 months in the sampled villages. Data were collected systematically so that they are representative of children in the village. The nutrition assessment team walked through the village in a 'transect line' and collected information from children in every household. The teams spin a pen on the ground to determine the direction in which they should walk. In the event the team reached the edge of the village before collecting data on 100 children, they spin the pen again and walked on a new direction to collect data on more children. In case there were less than 100 children in the village the team moved to the next nearest village to make up the shortfall.

Information on the food security problems encountered by different wealth groups for each zone and the required interventions were identified based on the current options they are using to meet their basic requirements in terms of food and non-food items. The sustainability of the present coping strategies and alternative sources of food and cash for the forthcoming months (until the next harvest) were explored. Food commodity prices were also ascertained in the interview process.

Information on livelihood assets, hazards and coping strategies that households currently use or plan to resort to in the coming months should food shortages arise was also gathered.

1.3.4 Data Analysis

The Integrated Food Security Classification (IPC) tools formed the basic instruments for data analysis. Prepared templates for data entry were provided to each team and

instructions for transferring data from questionnaires given. The national MUCHALI teams began data entry into their computers. Products generated on those templates include production and prices trend analysis (2004-2009) in crop, livestock and fish; calculations of food balance sheets, self-sufficiency rations (SSRs), consumptions patterns and dietary diversity; health and care (immunization and vaccination); disease prevalence; water availability and access; structural and livelihood characteristics. Production of different graphs was conducted using the data entry template, which were automatically linked to different graphs.

The analysis was done in order to estimate the number of households/people likely to be highly vulnerable to food, nutrition and livelihood insecurity. This took into consideration the fact that resource weak households that are able to cope with the current situation devoid of external assistance until next harvest should be excluded from those who would require immediate intervention according to the agro-economic zones visited. Specifically, the identification criteria considered the following:

- Councils with a likelihood of suffering from food, nutrition and livelihood security problems for year 2010/11.
- Available coping mechanisms in the respective areas visited.
- Specific underlying causes of food, nutrition and livelihood insecurity.
- Focus on rural households and communities with livelihoods dependent entirely on crop production and livestock keeping rather than on other economic activities.
- Exclusion from Central Government's intervention, districts with localized food shortages in small administrative areas, which can be managed by their respective Local Government Authorities.

The following indicators for nutrition data were determined for each district

- Percentage of children with MUAC <125 mm (12.5 cm) ('Proxy Global Acute Malnutrition' - GAM)
- Percentage of children with MUAC <115 mm (11.5 cm) ('Proxy Severe Acute Malnutrition' - SAM)
- Percentage of children with oedema – suggests presence of clinical/medical complications as a result of malnutrition.

- The data on MUAC can be used as a proxy for the prevalence of severe acute malnutrition (SAM) (MUAC <11.5 cm) and global acute malnutrition (GAM) (MUAC <12.5 cm). Acute malnutrition, also known as wasting, reflects current nutritional status which is a result of recent diseases and/or inadequate dietary intake.

2. FOOD SECURITY AND NUTRITION ANALYSIS

2.1 Key Sector Analysis

2.1.1 Food Crop Production

The August/September 2010 FSNA findings established that food security conditions continue to be stable following the good *msimu* and *masika* harvests realized during the 2009/2010 crop season in most parts of the country. Consequently, foods stocks in most households have remained fairly well supplied, reducing prices and dependence on markets and with satisfactory access to food within different livelihood systems. However, at household level findings suggest that food produced during the season (2009/10) was likely to run out between October 2010 and March 2011. This suggests that the "vuli" rains performance has a crucial role to play to the vulnerability levels of affected people particularly in bimodal areas.

2.1.2 Livestock Production

Livestock production is among the major agricultural activities in Tanzania whereby out of 4.9 million agricultural households in the country, about 36% of them keep livestock. Livestock production is largely subsistence despite its significant contribution to the national economy, food supply (meat, milk and eggs), and food security; income generation, employment, provision of manure and draught power; and also used for cultural purposes. Therefore, it contributes to sustainable agriculture and livestock production. Livestock populations have been increasing steadily in recent decades (ranking the third in Africa). Currently, the country has about 19.2 million cattle, 17.3 million shoats, 1.8 million pigs and 58 million poultry. More than 90% of the livestock population in the country is of indigenous types, kept in the traditional sector, having a characteristically low productivity but well adapted to the existing harsh environment and resistant to diseases.

About 80% of the traditional livestock keepers are agropatoralists and the rest (20%) are typical pastoralists whose livelihoods entirely depend on livestock production. The pastoral and agro-pastoral production systems are commonly practiced in the central semi-arid areas and adjacent dry lands. Typical pastoralists have dominance in semi arid areas of Ngorongoro, Longido, Simanjiro, Kiteto and Monduli districts. Most of these areas experience minimal amount and poor distribution of rainfall in both *Vuli* and *Masika*.

Food insecurity among pastoral communities especially the Maasai is a bit complicated compared to the agro-based communities. Approaches used in addressing food insecurity needs to be reviewed and look into specific plausible solutions to the problem. The September 2010 assessment conducted in predominantly pastoral areas of Simanjiro, Kiteto, Longido, Monduli and Ngorongoro districts shows that currently livestock condition is relatively normal. Improved conditions of livestock are attributed to the 2009/10 *masika* rainy season which improved pasture and water conditions. Water for livestock and pasture condition especially in high and midland areas is normal but getting worse in lowland areas.

Generally, availability of pasture and water would continue declining in the central and north eastern pastoral areas until the next rains. The severity of the situation has led to an observed massive influx of livestock migration to mid and highlands in search of pasture and water for livestock resulting into overgrazing and some degree of environmental degradation. Lack of adequate pasture worsens livestock condition; resulting in increased livestock deaths, reduced market prospects, impairing income generation and weakening the ability of households to access staple foods.

Poultry production contributes significantly to food security and incomes of the rural populations despite its susceptibility to a number of diseases. For example, Newcastle disease (ND) and Fowl-Pox were identified as major diseases hindering local chicken production in the surveyed districts. The risks of the diseases to chicken production are fatal compelling households to rebuild their stocks every year. It was revealed that the I-2 vaccine for ND is not readily available at village level and when available is expensive and beyond the reach of most households. Regardless of its contribution in addressing food insecurity, poultry are largely not kept by typical pastoralists especially Maasai. Hence, poultry contribution in pastoralist communities is negligible.

Despite the large number of livestock in the country, the local market has not been fully developed particularly in the pastoral and agro-pastoral areas. For instance, Ngorongoro District, which has 380,000 cattle and more than 550,000 shoats has only one livestock market infrastructure, which is neither in use nor in order. The country's livestock marketing system and infrastructures are poor. This has been a setback for pastoralists and agro-pastoralists who are willing to harvest (sell) their stock for the purpose of buying food and meeting other household expenses. Livestock prices normally rise in January, reach a peak in July – August and decline from September to the lowest in December. Compared to 2009/10, current livestock prices are relatively higher due to better livestock condition given modest availability of pasture and water. Given that forage conditions are steadily declining in the country and the forecasted poor rainfall prospects in most pastoral areas, prices will probably continue falling over time until next rainy season. Shoats' prices will rise as they will maintain normal body condition because of their ability to withstand harsh conditions.

2.1.3 Fish Production

In those Councils, which responded to questions related to fish production, show that there is a significant number of fishers directly employed in fishery industry and others are engaged in other income generating activities, which are done along with fisheries related activities. Fish sales contribute significantly to the income of surveyed households. As the food security situation has become a critical concern in the country and the world at large, there is a need to mobilize effort towards improving fishery activity to the existing food security information.

2.1.4 The 2010-2011 Season Rainfall Performance

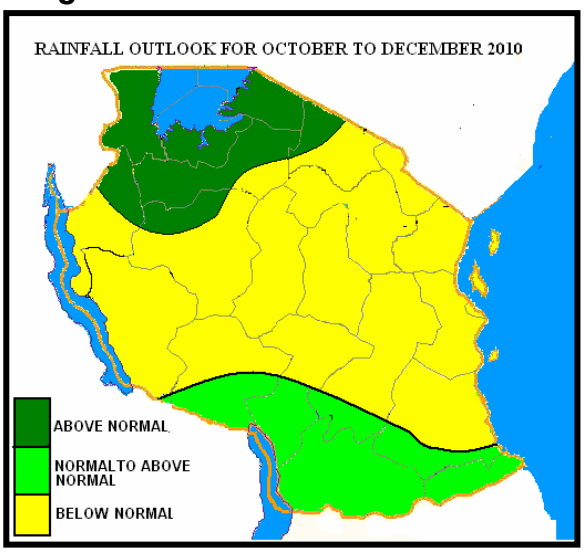
Sea Surface Temperatures (SSTs) in the central equatorial Pacific Ocean have been anomalously cool for the past two months and show a trend towards enhanced cooling which implies that *La Niña* condition is present across the equatorial Pacific and is projected to persist through March 2011. The current cooling over the western Indian Ocean (off the coast of East Africa) coupled with increased gradual warming over Indonesia is expected to weaken the low level easterly winds towards the country. Enhanced westerly wind flow during September will influence rainfall activities over Lake Victoria Basin, western parts of Northeastern Highlands and western regions (northern parts of Kigoma and Tabora). However, during November-December 2010 a weakening of westerly winds due to warming over northern Atlantic Ocean is likely to reduce rainfall over the Lake Victoria Basin and western parts of the country. Slight warming over northern Madagascar during late November and December is likely to enhance rainfall activities over the southern sector of the country.

2.1.5 Rainfall outlook for October to December 2010

(a) Short Rains (*Vuli*)

The rains are expected to be above normal over Lake Victoria Basin and western parts of Arusha region. Below normal rainfall performance is expected over the northeastern highlands, northern coast and its hinterlands. Onset dates for the short rains season over bimodal areas are likely to delay, resulting in a shorter *vuli* season.

Figure 2:



Lake Victoria Basin: (Kagera, Northern Kigoma, Mara, Mwanza and Shinyanga regions): Rains are expected to start during the third week of September 2010 over Kagera region and gradually spreading to other areas (Mwanza, Shinyanga , northern Kigoma (Kibondo) and Mara regions) during the second week of October, 2010. The rains are expected to be mainly above normal over most areas. However, eastern parts of Shinyanga are likely to experience below normal rainfall.

Northern coastal areas and hinterland: (Dar es Salaam, Tanga, Coast, and northern Morogoro regions and the Isles of Unguja and Pemba): The rains are expected to commence during the second week of October 2010. These rains are expected to be below normal over most areas and poorly distributed during the season.

Northeastern highlands: (Kilimanjaro, Arusha and Manyara regions): The onset is expected during the second and third week of October 2010. These areas are expected to receive below normal rainfall.

(b) Seasonal Rains

The November to April rainfall (*Seasonal rains*) is more significant for the Western, Central, Southwestern highlands, Southern regions and Southern coast. The rains are likely to be suppressed over western and central regions of the country. Most areas of Southwestern highlands, Southern regions and part of Southern coast are expected to receive mainly normal rains

Western areas: (Tabora, Rukwa, southern Kigoma, and parts of eastern Shinyanga regions): The rains are likely to start during the first to second week of November, 2010 and are expected to be below normal. However, northern parts of Tabora and Kigoma are expected to experience normal rains.

Central (Singida and Dodoma regions): Onset of the seasonal rains over these areas is expected in the first week of December 2010, with a likelihood of being below normal.

Southwestern highlands: (Mbeya, Iringa and Morogoro regions): Onset of the seasonal rains over these areas is expected in second and third week of November 2010, with a likelihood of being normal. Northern parts of these regions are expected to receive below normal rainfall.

Southern region and Southern Coast: (Ruvuma, Mtwara and Lindi regions): Onset of the seasonal rains over these areas is expected in the fourth week of November 2010, with a likelihood of receiving normal rainfall. However, the greater part of Lindi region is expected to receive below normal rainfall.

2.2 Food Availability and Access

The food crop production realised in the 2009/2010 crop season has improved the availability of staple foods in most of the assessed areas to meet households' requirements and market supplies. Food crop supplies to the market have generally been steady and prices have been fairly stable. At household level, there is great concern over low purchasing power of the resource weak households in accessing food from markets.

However, poor rainfall prospects in the coming *Vuli* season as predicted in the Seasonal Weather Outlook by TMA could trigger food crop prices to rise particularly in the in bimodal and unimodal areas, which could force many households to continue depending on food purchases, thus constraining the ability of poor households to access food.

Given the steadily declining forage conditions in the country and the forecasted poor rainfall prospects in most pastoral areas, livestock prices will probably continue falling until the next rainy season. Therefore, livestock dependent households should be encouraged to sell livestock and purchase food other household expenses fairly early while prices are still good.

2.2.1 Terms of Trade

During the assessment, livestock conditions were generally good in most assessed areas due to availability of pasture and water. This has contributed to better Terms of Trade in favour of livestock keepers. The terms of trade between selling livestock and buying food are better in 2010 compared to 2009 between the months of June through August. Moreover, in areas where indigenous poultry keeping is an important activity, the terms of trade are favourable to poultry keepers. For example, in Ngorongoro district, one goat sold in August 2010 could purchase 240 kilograms of maize against only 130 and 150 kilograms of maize in August 2009 and in five-year average respectively. Likewise, in Mvomero District Council, one chicken sold in July 2010 could purchase 25 kilograms of maize against only 23 and 20 kilograms of maize in July 2009 and in five-year average respectively (**Figures 3 and 4**).

Figure 3

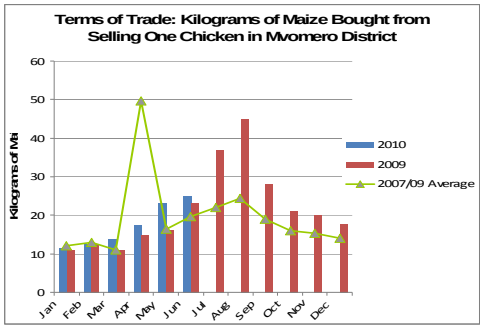


Figure 4

Source: MUCHALI Food Security and Nutrition Assessment, September 2010

3. VULNERABILITY ASSESSMENT RESULTS

3.1 Vulnerable Population

The assessment has established that **423,530** people or **6%** of **7,638,550 (**the estimated total population in **28** district councils in **12** regions) are likely to be **generally food insecure** between November 2010 and January 2011. These district councils include Arusha (**Longido, Ngorongoro and Monduli**), Manyara (**Simanjiro, Kiteto and Babati**), Kilimanjaro (**Same and Mwanga**), Shinyanga (**Shinyanga Municipal Council, Kishapu, Shinyanga and Meatu**), Morogoro (**Morogoro and Mvomero**), Mwanza (**Kwimba**), Singida (**Manyoni**), Dodoma (**Dodoma Municipal, Bahi, Chamwino, Mpwapwa and Kongwa**), Iringa (**Iringa**), Tabora (**Nzega**), Lindi (**Lindi , Ruangwa and Liwale**) and Mtwara (**Masasi and Nanyumbu**).

The affected population in those areas would need immediate interventions between November 2010 and February 2011. During this period, they will need food assistance amounting to **13,768** MT. Out of this, **1,376** MT are recommended for free distributions to **42,353** weak resource-base people and the remaining **12,386** MT for subsidized prices for **381,177** people, who cannot afford to buy food at market prices (**Table 2**).

However, while the assessment report recommends deferring food aid distributions until close monitoring of food security situation determines so, it has been established that the majority of households especially the resource weak, which had poor production during the 2009/10 crop season will have difficulties of obtaining seed for planting in their own farms in the 2010/11 crop season starting November. In view of this, the report recommends distributing **3,208** MT of different kinds of seeds (maize equivalent) to the vulnerable households for planting during the 2010/11 crop season (Table 3). In unimodal rainfall areas, seeds should be distributed before the planting season which begins in November. In bimodal rainfall areas, seed distributions should take place before the "*vuli"* season in October 2010 and *"masika"* season in March 2011.

Furthermore, the assessment has also established that a total of 830,032 people in 28 districts (11 percent of the total population in the moderately affected districts) are potentially vulnerable to mild food insecurity (Table 4). This population might fall into acute food insecurity category should rainfall in the coming *vuli* season perform poorly.

3.2 Nutritional Status of Children aged 6– 59 months

The MUAC measurements were obtained from a total of 8,174 children aged 6 – 59 months in 30 districts. Of the children 4,059 were girls and 4,114 boys. Overall, the prevalence of proxy SAM (MUAC <11.5 cm) was 0.4 percent and the prevalence of proxy GAM (MUAC <12.5 cm) was 2.9 percent. The percentage of proxy GAM (MUAC <12.5 cm) was Acceptable in 28 districts, Serious in two districts: Liwale (5.1%) and Simanjiro (5%) and Very critical in one district: Longido (16.5%), **Table 5**.

The presence of Oedema was observed in 1.3 percent of the assessed children in Longido, Babati, Hanang, Monduli, Kiteto and Simanjiro in northeastern Tanzania; Mtwara DC in the south and Mpwapwa and Bahi in central zone and in Nzega in the Western Zone. The districts have repeatedly (e.g. in the September 2009 RVA) been observed to have a high prevalence of low MUAC- a proxy for Acute malnutrition (GAM and SAM).

3.3 Other Indicators

3.3.1 Water

Access to sufficient, clean and safe water was for human use was identified a chronic problem in almost all assessed Councils as most households surveyed indicated accessing water from unprotected sources, boreholes and dams, with availability worsening during dry seasons. Consequently, the amount of water consumed per person per day (PPPD) in the sampled households was below the Sphere Standard (and WHO) threshold of 15, which has severe nutritional, health and care consequences to the population. The average time taken to collect water (to and fro) from the main source in assessed areas is approximately 2.25 hours.

3.3.2 Diseases

The assessment has revealed that the prevalence of Malaria for under-fives in most districts is high higher than the district average as given in Tanzania HIV and Malaria Indicator Survey 2007-8. On the other hand the immunization against measles and polio has registered very good success as all surveyed district have reported higher rates than the national average.

3.3.3 Dietary diversity

Generally dietary diversity in the surveyed districts was good mainly due to the fact that the harvesting period just came to an end; there are still a variety of options available although there was a notable decreased protein intake for poor pastoral households.

3.3.4 Coping strategies

Coping strategies are important measures that enable people to absorb the impact of a shock to a greater or lesser extent, depending on how resilient the livelihood or individual /household is. In the assessed areas, coping strategies varied from place to place and livelihood to livelihood. However, there were no distressing coping strategies observed in the assessed areas. Normal livelihood strategy activities such as petty trading, agricultural labour, non-agricultural labour, fish farming, sales of livestock, mining, firewood collection, charcoal burning, wild food collection (*mlenda*) were carried out.

Additionally, it is likely that the agricultural labour opportunities available will continue to be limited, with many poor households continuing to depend on poultry, charcoal, firewood, and vegetable sales. Some resource weak households will need to rely on assistance from their neighbours and relatives, which is not adequate to meet their basic food needs.

4. RECOMMENDATIONS

The report is recommending short-term, medium-term and long-term interventions to enable households recovery from the shocks, as well as to address the root causes of food insecurity and nutrition in assessed areas which could also be applicable to other areas of the country.

4.1 Immediate-term interventions

4.1.1 Food aid distributions

It is recommended that a total of **13,766** MT of food assistance should be distributed to the affected population as an **immediate intervention** for the period between November 2010 and January 2011. Out of this amount, **1,376** MT are recommended for free distributions to **42, 353** destitute people and the remaining **12,386** MT for subsidized prices for **381,177** people, who cannot afford to buy food at market prices.

4.1.2 Seed distributions

It is recommended that **3,208** MT of different kinds of seeds at maize equivalent be distributed to 320,828 vulnerable households in the acutely affected areas for planting during the 2010/11 agricultural year.

4.1.3 Conduct nutrition survey in Selected Councils

It is recommended that follow-up surveys using anthropometric indices (stunting, Wasting, underweight and MUAC) with a robust sampling design be conducted in the districts of Longido, Babati DC, Hanang, Monduli, Kiteto, Simanjiro and Ngorogoro. Considerations **may** also be exteded to the districts of Liwale, Mtwara DC, Bahi, Mpwapwa and Nzega where oedema cases were observed.

4.2 Medium-term interventions

The Government and partners should put in place mechanisms to ensure adequate availability of food in local markets through encouraging traders to distribute food especially in areas with limited food supplies. It is estimated that a total of **25,608** MT of food is required by **830,032** people who are moderately food insecure for the period between November 2010 and February 2011.

4.3 Long-term interventions

4.3.1 Non-food multi-sectoral interventions

It is recommended that long-term non-food multi-sectoral interventions aimed at addressing the root causes of food insecurity in assessed areas be undertaken. These interventions include appropriate food utilization practices and provision of complementary support programmes in health, water and sanitation, continuous monitoring of market conditions (supplies and prices) and promoting proper food storage at household level.

4.3.2 Developing appropriate approaches to address food insecurity in pastoral areas

It is recommended that apart from food assistance and seed distribution to food insecure populations, it is advised that in pastoral areas a bulls seed stock should be supplied to improve breeding of their herds which was decimated during the 2008/2009 prolonged drought. Moreover, approaches used in addressing food insecurity needs be reviewed and look into specific plausible solutions to the problem in pastoral areas.

a) There is a need to mobilize efforts towards improving fishery activities to enhance food security for households by popularising fish ponds.

b) It is recommended that constant construction and rehabilitation of water sources, roads, improving human health service and market infrastructure should be given priorities.

c) Close monitoring of markets performance in terms of supply and prices.

d) It is recommended that household education and awareness creation on basic nutrition and water hygiene practices should be given priorities in the Councils.

Table 1: SUMMARY of Integrated Phase Classification and Risk Analysis for Assessed District Councils, September 2010

Region	District	Total population	Food Insecure population	% of Food Insecure population	Phase Classification	Risk level
Dodoma	Mpwapwa	310,982	21,157	7	Generally Food secure	Watch
	Kongwa	301,570	20,786	7	Generally Food secure	Watch
	Total	612,552	41,943	7		
Kjaro	Mwanga	138,598	2,886	2	Generally Food secure	watch
	Same	254,600	23,301	9	Generally Food secure	watch
	Total	393,198	26,187	7		
Iringa	Iringa R	272,707	13,384	5	Generally Food secure	Watch
	Total	272,707	13,384	5		
Manyara	Babati	407,777	3,325	1	Generally Food secure	Watch
Manyara	Hanang		-	-	Generally Food secure	Watch
	Total	407,777	3,325	1		
Mtwara	Masasi	519,418	1,065	0.2	Generally Food secure	Watch
	Mtwara R		-	-	Generally Food secure	Watch
	Total	519,418	1,065	0		
Shinyanga	Shinyanga (U).	200,599	3,795	2	Generally Food secure	Watch
	Total	200,599	3,795	2		
Tabora	Nzega	545,303	14,548	3	Generally Food secure	Watch
	Total	545,303	14,548	3		
	Grand Total	2,951,554	104,246	4		
Arusha	Longido	89,136	19,291	22	Moderate/borderline Food Insecure	High risk
	Monduli	233,164	19,000	8	Moderate/borderline Food Insecure	High risk
	Ngorongoro	159,861	67,800	42	Moderate/borderline Food Insecure	High risk
	Total	482,161	106,091	22		
Dodoma	Bahi	185,783	5,713	3	Moderate/borderline Food Insecure	Watch
	Chamwino	234,586	32,476	14	Moderate/borderline Food Insecure	Watch
	Manispaa	484,935	6,568	1	Moderate/borderline Food Insecure	Watch
	Total	905,304	44,757	5		
Lindi	Lindi (R)	248,830	9,784	4	Moderate/borderline Food Insecure	Watch

	Ruangwa	146,985	3,727	3	Moderate/borderline Food Insecure	Moderate
	Liwale	88,884	5,480	6	Moderate/borderline Food Insecure	Watch
	Total	484,699	18,991	4		
Manyara	Simanjiro	187,482	25,034	13	Moderate/borderline Food Insecure	High risk
	Kiteto	189,579	12,009	6	Moderate/borderline Food Insecure	Watch
	Total	377,061	40,367	11		
Morogoro	Morogoro R	299,066	12,315	4	Moderate/borderline Food Insecure	Watch
	Mvomero	303,298	17,109	6	Moderate/borderline Food Insecure	Watch
	Total	602,364	29,424	5		
Mtwara	Nanyumbu	154,960	9,435	6	Moderate/borderline Food Insecure	Watch
	Total	154,960	9,435	6		
Mwanza	Kwimba	377,322	7,435	2	Moderate/borderline Food Insecure	Watch
	Total	377,322	7,435	2		
Singida	Manyoni	262,563	14,817	6	Moderate/borderline Food Insecure	Watch
	Total	262,563	14,817	6		
Shinyanga	Shinyanga R	372,943	11,328	3	Moderate/borderline Food Insecure	Watch
	Kishapu	327,386	14,457	4	Moderate/borderline Food Insecure	Watch
	Meatu	340,233	25,508	7	Moderate/borderline Food Insecure	Watch
	Total	1,040,562	51,292	5		
	Grand Total	4,686,996	322,608	7		

Table 2: Regions and Councils with Populations Experiencing Acute Food Shortages and Recommended Food Interventions

Region	District	Total population	Food Insecure population	% of Food Insecure population	Duration of intervention (Months)	Food Requirement MT	Destitute population	Free Food Relief Required MT	Able Body population	Subsidized Relief Food MT
Arusha	Longido	89,136	19,291	22	3	694	1,929	69	17,361	625
	Monduli	233,164	19,000	8	3	684	1,900	68	17,100	616
	Ngorongoro	159,861	67,800	42	3	2,441	6,780	244	61,020	2,197
	Total	482,161	106,091	22	3	3,819	10,609	382	95,481	3,437
Dodoma	Bahi	185,783	5,713	3	3	206	571	21	5,142	185
	Chamwino	234,586	32,476	14	3	1,169	3,248	117	29,228	1,052
	Mpwapwa	310,982	21,157	7	3	762	2,116	76	19,041	685
	Kongwa	301,570	20,786	7	3	748	2,079	75	18,707	673
	Manispaa	484,935	6,568	1	3	236	657	24	5,911	213
	Total	1,517,856	86,700	6	3	3,121	8,670	312	78,030	2,809
Kjaro	Mwanga	138,598	2,886	2	3	104	289	10	2,597	94
	Same	254,600	23,301	9	3	839	2,330	84	20,971	755
	Total	393,198	26,187	7	3	943	2,619	94	23,568	848
Iringa	Iringa R	272,707	13,384	5	2	321	1,338	32	12,046	289
	Total	272,707	13,384	5	2	321	1,338	32	12,046	289
Lindi	Lindi (R)	248,830	9,784	4	2	235	978	23	8,806	211
	Ruangwa	146,985	3,727	3	2	95	373	9	3,354	81

	Liwale	88,884	5,480	6	2	132	548	13	4,932	118
	Total	484,699	18,991	4	2	461	1,899	46	17,092	410
Manyara	Babati	407,777	3,325	1	2	80	332	8	2,992	72
	Simanjiro	187,482	25,034	13	2	601	2,503	60	22,531	541
	Kiteto	189,579	12,009	6	2	288	1,201	29	10,808	259
	Total	784,838	40,367	5	2	969	4,037	97	36,331	872
Morogoro	Morogoro R	299,066	12,315	4	3	443	1,231	44	11,083	399
	Mvomero	303,298	17,109	6	3	616	1,711	62	15,398	554
	Total	602,364	29,424	5	3	1,059	2,942	106	26,481	953
Mtwara	Nanyumbu	154,960	9,435	6	2	226	944	23	8,492	204
	Masasi	519,418	1,065	0	2	26	107	3	959	23
	Total	674,378	10,501	2	2	252	1,050	25	9,451	227
Mwanza	Kwimba	377,322	7,435	2	1	89	743	9	6,691	80
	Total	377,322	7,435	2	1	89	743	9	6,691	80
Singida	Manyoni	262,563	14,817	6	3	533	1,482	53	13,335	480
	Total	262,563	14,817	6	3	533	1,482	53	13,335	480
Shinyanga	Shinyanga R	372,943	11,328	3	3	408	1,133	41	10,195	367
	Kishapu	327,386	14,457	4	3	520	1,446	52	13,011	468
	Meatu	340,233	25,508	7	3	918	2,551	92	22,957	826
	Shinyanga (U).	200,599	3,795	2	2	91	379	9	3,415	82

	Total	1,241,161	55,086	4	3	1,938	5,509	194	49,578	1,744
Tabora	Nzega	545,303	14,548	3	2	262	1,455	26	13,093	236
	Total	545,303	14,548	3	3	262	1,455	26	13,093	236
	Grand Total	7,638,550	423,530	6	3	13,768	42,353	1,376	381,177	12,386

Table 3: Seed Requirements for Vulnerable and Resource Week Households by Region and Council

Region	District	Total population Estimate 2010	Food Insecure population	Number of households	Period of need Month	Seed Requirement MT
Arusha	Ngorongoro	159,861	67,800	25,776	.Nov 2010	258
	Total	159,861	67,800	25,776		258
Dodoma	Bahi	185,783	5,713	8,136	.Nov 2010	82
	Chamwino	234,586	32,476	32,117	.Nov 2010	321
	Mpwapwa	310,982	21,157	18,618	.Nov 2010	186
	Kongwa	301,570	20,786	20,309	.Nov 2010	203
	Manispaa	484,935	6,568	16,414	.Nov 2010	164
	Total	1,517,856	86,700	95,594		956
Kjaro	Mwanga	138,598	2,886	2,850	.Oct 2010	29
	Same	254,600	23,301	15,329	.Nov 2010	153
	Total	393,198	26,187	18,179		182
Iringa	Iringa R	272,707	13,384	15,858	.Nov 2010	159
	Total	272,707	13,384	15,858		159
Lindi	Lindi (R)	248,830	9,784	11,545	.Nov 2010	115
	Liwale	88,884	5,480	4,167	.Nov 2010	42
	Total	337,714	15,264	15,712		157
Manyara	Babati	407,777	3,325	5,731	.Feb 2011	57
	Simanjiro	187,482	25,034	9,319	.Feb 2011	93
	Kiteto	189,579	12,009	26,642	.March 2011	265
	Total	784,838	40,367	41,692		417
Morogoro	Morogoro R	299,066	12,315	8,599	.Nov 2010	86
	Mvomero	303,298	17,109	11,400	.Feb 2011	114
	Total	602,364	29,424	19,999		200
Mtwara	Nanyumbu	154,960	9,435	10,275	.Nov 2010	103
	Masasi	519,418	1,065	1,480	.Dec 2010	15
	Total	674,378	10,501	11,755		118
Singida	Manyoni	262,563	14,817	15,432	.Nov 2010	154
	Total	262,563	14,817	15,432		154
Shinyanga	Shinyanga R	372,943	11,328	8,983	.March 2011	90
	Kishapu	327,386	14,457	16,890		169
	Meatu	340,233	25,508	18,837		188
	Shinyanga (U).	200,599	3,795	6,616		66

	Total	1,241,161	55,086	51,326		513
Tabora	Nzega	545,303	14,548	9,505	.Nov 2010	95
	Total	545,303	14,548	9,505		95
	Grand Total	6,791,943	374,077	320,828		3,208

Table 4: Regions and Councils with Populations Experiencing Moderate Food Shortages and Recommended Interventions

Region	District	Total population	Food Insecure population	% of Food Insecure population	Duration of intervention	Food Requirement MT
Arusha	Longido	89,136	11,072	12	3	398
	Monduli	233,164	16,601	7	3	598
	Total	322,300	27,673	9	3	996
Dodoma	Bahi	185,783	58,161	31	3	2,094
	Chamwino	234,586	49,800	21	3	1,793
	Mpwapwa	310,982	31,120	10	3	1,120
	Kongwa	301,570	73,073	24	3	2,631
	Manispaa	484,935	27,563	6	3	992
	Total	1,517,856	239,715	16	3	8,630
Kjaro	Mwanga	138,598	25,119	18	3	904
	Same	254,600	44,609	18	3	1,606
	Total	393,198	69,728	18	3	2,510
Iringa	Iringa R	272,707	20,077	7	2	482
	Total	272,707	20,077	7	2	482
Lindi	Lindi (R)	248,830	21,321	9	2	512
	Ruangwa	146,985	66,617	45	-	1,599
	Liwale	88,884	19,142	22	-	459
	Total	484,699	107,079	22	2	2,570
Manyara	Babati	407,777	50,807	12	2	1,220
	Simanjiro	187,482	57,963	31	2	1,391
	Kiteto	189,579	11,434	6	2	274
	Hanang	275,062	17,747	6	-	426
	Total	1,059,900	137,951	13	2	3,311
Morogoro	Morogoro R	299,066	14,777	5	3	532
	Mvomero	303,298	23,234	8	3	836
	Total	602,364	38,011	6	3	1,368
Mtwara	Nanyumbu	154,960	10,256	7	2	245
	Masasi	519,418	4,777	1	2	115
	Mtwara (R)	20,533	4,107	20	2	99
	Total	694,911	19,139		2	459

				3		
Mwanza	Kwimba	377,322	21,750	6	1	261
	Total	377,322	21,750	6	1	261
Singida	Manyoni	262,563	25,817	10	3	929
	Total	262,563	25,817	10	3	929
Shinyanga	Shinyanga R	372,943	16,991	5	3	612
	Kishapu	327,386	68,699	21	3	2,473
	Meatu	340,233	17,716	5	3	638
	Shinyanga (U).	200,599	2,413	1	-	58
	Total	1,241,161	105,819	9	3	3,781
Tabora	Nzega	545,303	17,275	3	2	311
	Total	545,303	17,275	3	3	311
	Grand Total	7,774,284	830,032	11	3	25,608

Table 5 Nutritional Status

DISTRICT		ALL	MUAC								STATUS	OEDEMA*			
			≥12.5 cm		11.5-12.4 cm		<11.5 cm		<12.5cm		<12.5 cm	NO		YES	
		N	n	%	n	%	n	%	n	%		n	%	n	%
1	Longido	260	217	83.5	35	13.5	8	3.1	43	16.5	Very Critical	235	90.4	25	9.6
2	Liwale	197	187	94.9	8	4.1	2	1.0	10	5.1	Serious	197	100	0	0
3	Simanjiro	200	190	95.0	7	3.5	3	1.5	10	5.0	Serious	197	98.5	3	1.5
4	Ruangwa	225	214	95.1	10	4.4	1	0.4	11	4.9	Acceptable	225	100	0	0
5	Ngorongoro	201	192	95.5	9	4.5	0	0	9	4.5	Acceptable	201	100	0	0

6	Babati DC	300	287	95.7	13	4.3	0	0	13	4.3	Acceptable	279	93	21	7
7	Chamwino	300	287	95.7	10	3.3	3	1.0	13	4.3	Acceptable	300	100	0	0
8	Same	296	284	95.9	10	3.4	2	0.7	12	4.1	Acceptable	296	100	0	0
9	Manyoni	200	193	96.5	5	2.5	2	1.0	7	3.5	Acceptable	300	100	0	0
10	Mtwara DC	300	290	96.7	10	3.3	0	0	10	3.3	Acceptable	290	96.7	10	3.3
11	Dodoma MC	300	290	96.7	8	2.7	2	0.7	10	3.3	Acceptable	300	100	0	0
12	Monduli	258	250	96.9	7	2.7	1	0.4	8	3.1	Acceptable	250	96.9	8	3.1
13	Nzega	215	209	97.2	6	2.8	0	0	6	2.8	Acceptable	210	97.7	5	2.3
14	Masasi	300	292	97.3	7	2.3	1	0.3	8	2.7	Acceptable	300	100	0	0
15	Hanang	300	292	97.3	7	2.3	1	0.3	8	2.6	Acceptable	284	94.7	16	5.3
16	Shinyanga DC	300	293	97.7	7	2.3	0	0	7	2.3	Acceptable	300	100	0	0
17	Kongwa	300	293	97.7	5	1.7	2	0.7	7	2.3	Acceptable	300	100	0	0
18	Meatu	300	294	98.0	4	1.3	2	0.7	6	2.0	Acceptable	300	100	0	0
19	Kishapu	300	294	98.0	4	1.3	2	0.7	6	2.0	Acceptable	300	100	0	0
20	Kiteto	300	294	98.0	6	2.0	0	0	6	2.0	Acceptable	286	95.3	14	4.7
21	Nanyumbu	300	295	98.3	4	1.3	1	0.3	5	1.7	Acceptable	300	100	0	0
22	Bahi	300	295	98.3	5	1.7	0	0	5	1.7	Acceptable	298	99.3	2	0.7
23	Lindi DC	300	295	98.3	5	1.7	0	0	5	1.7	Acceptable	300	100	0	0

24	Mvomero	298	294	98.7	2	0.7	2	0.7	4	1.3	**Acceptable**	**298**	**100**	**0**	**0**
25	Mwanga	229	226	98.7	3	1.3	0	0	3	1.3	**Acceptable**	**229**	**100**	**0**	**0**
26	Mpwapwa	200	198	99.0	2	1.0	0	0	2	1.0	**Acceptable**	**197**	**98.5**	**3**	**1.5**
27	Shinyanga MC	300	298	99.3	2	0.7	0	0	2	0.7	**Acceptable**	**300**	**100**	**0**	**0**
28	Kwimba	300	298	99.3	2	0.7	0	0	2	0.7	**Acceptable**	**300**	**100**	**0**	**0**
29	Morogoro DC	300	299	99.7	1	0.3	0	0	1	0.3	**Acceptable**	**300**	**100**	**0**	**0**
30	Iringa DC	294	293	99.7	1	0.3	0	0	1	0.3	**Acceptable**	**294**	**100**	**0**	**0**