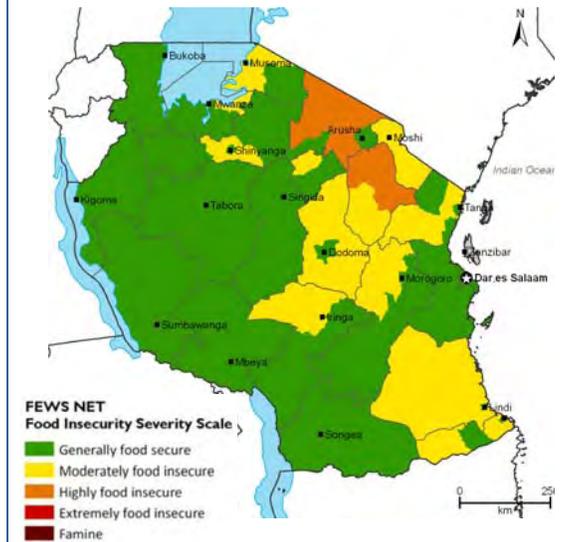


Tanzania Food Security Outlook

October 2009 to March 2010

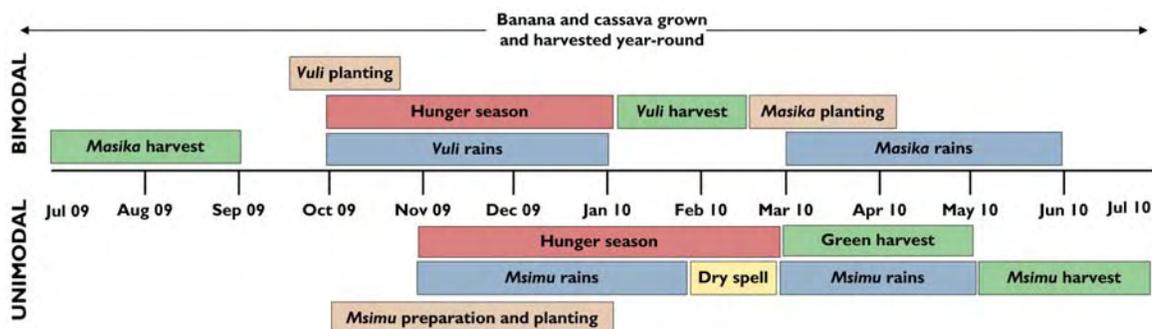
- Food security conditions have deteriorated in northern and northeastern parts of the bimodal areas of Ngorongoro, Longido, Monduli (Arusha Region), Simanjiro (Manyara Region), and the lowlands of Kilimanjaro and Tanga regions, affecting mainly pastoral and agropastoral households, and marginal agricultural households in the lowlands of Kilimanjaro. The September 2009 Rapid Vulnerability Assessment indicated that there are currently more than 1.5 million food insecure people in 63 districts (in 15 regions). Food needs for this population are expected to be met through free and subsidized government distributions beginning in November.
- Food security conditions in bimodal areas, particularly in the northern and northeastern districts, will begin to improve in October, following the start of anticipated above-normal *vuli* rains, which will replenish soil moisture, recharge water points, rejuvenate pastures, and improve livestock productivity, providing income and increased food availability and access for agropastoral households. Food security will also begin to improve in the Lake Victoria cassava-growing areas with the availability of locally grown wild vegetables, pulses, and green maize, and increased labor opportunities in October. In the southern regions of Mtwara and Lindi, food security will improve beginning in November with the start of the cashew marketing season.
- During the January to March period, food security conditions will continue to improve as the *vuli* harvest begins, particularly in the bimodal areas that have experienced *vuli* failure since 2007. With the start of *masika* rains in March, the main agricultural season in the bimodal lowland areas, food security in pastoral areas will continue to increase, as animal body conditions and productivity improve. In the central unimodal areas, food security conditions will begin to improve with the green harvest in March. The start of the *msimu* rains in March in the unimodal areas will regenerate pastures and increase water availability, resulting in improved livestock body conditions and productivity.

Figure 1. Current estimated food security conditions, September 2009



Source: FEWS NET

Seasonal calendar and critical events



Source: FEWS NET

Current food security conditions

Food security at the national level is generally satisfactory. However, since August, after depleting stocks from the below-average *masika* harvest in bimodal areas, food security conditions have deteriorated in northern and northeastern parts of the bimodal areas, and in the Lake Victoria zone (Mara, Mwanza and Shinyanga districts). Food insecurity has mainly affected pastoralists and agro pastoralists and households in the marginal crop agricultural zone in the lowlands of these areas. Food security conditions have also deteriorated in some parts of the unimodal areas that received below-normal *msimu* rains, including the central zone, particularly Dodoma and Singida regions, some parts of the lowland areas of the southern highlands (Iringa and Mbeya regions), and the southern regions of Mtwara and Lindi (Figure 1).

While the March 2009 Rapid Vulnerability Assessment (RVA) conducted by the Food Security Information Team (FSIT) across the country established that 279,607 people were food insecure in 40 Districts (in 11 regions), the September 2009 RVA has indicated that there are over 1.5 million food insecure people in 63 districts in 15 regions (Table 1). The food insecure population has increased between the two periods mainly because of poor food production resulting from the failed *masika* season in some parts of bimodal areas

and below-normal rains in some parts of unimodal areas. Agricultural activities were also affected by the poor rains, limiting the labor opportunities and thus income for households dependent on casual labor. The food stocks of households who were food secure in March continued to be depleted and by September, some generally food secure households had slipped into the moderately food insecure category, while moderately food insecure households became highly food insecure.

The affected population is expected to need food assistance amounting to 56,740 MT, from available in-country stocks. Out of this amount, 5,674 MT are recommended for free distribution to 156,989 poor people, and the remaining 51,066 MT are recommended for subsidized sales beginning in November 2009 to 1,412,901 people who cannot buy food at market prices. Food needs are expected to be met through these food distributions.

Prevailing food insecurity in the country is related to food access, as all markets are registering above five-year average prices for all monitored commodities (maize, rice, beans, millet, sorghum, and potatoes), indicating that poor households are constrained in accessing food from markets (see the Price Annex). The poor market-dependent households in both urban and rural areas generally spend a large proportion of their cash income on food so higher prices have forced them to reduce the quality of food consumed. As prices increase, the poor spend on less expensive, calorie rich staples (maize) and less on food rich in protein and vitamins (such as fish, dairy, fruits, and vegetables). Continued high food prices have limited the poor households' (mainly casual labour-dependant households and poor farmers) access to food from markets. Likewise, high fuel prices have increased the costs of transporting food to the market, increasing prices further. This has contributed to the increased prices of both food and non food essentials at the household level in both rural and urban areas and further reduced purchasing power of the poor households.

Northern and northeastern areas (bimodal)

The deterioration of food security in bimodal areas is due to extended dryness following the consecutive failed *vuli* and *masika* rain seasons since 2007 in the pastoral and agro pastoral areas of Ngorongoro, Longido, Monduli (Arusha Region), Simanjiro (Manyara Region), and the lowlands of Kilimanjaro region. Extended dryness in pastoral rangelands has led to deterioration of pasture and browse, resulting in poor livestock body conditions, decreased milk production, and increasing vulnerability to disease (field reports indicate increased livestock mortality from East Coast Fever, heart water and black quarter diseases in cattle and lumpy skin disease in goats). Water catchments and most shallow wells are dry, reducing availability of water for both livestock and domestic use. Decreased levels of milk production have reduced incomes from livestock products (milk and ghee sales) and thus limited pastoral households' ability to purchase grains. Decreased milk production has also negatively impacted the nutritional status of sedentary household members who do not migrate with

Table I. Food insecure population by region, September 2009

Region	Food insecure population
Arusha	277,653
Manyara	166,093
Kilimanjaro	122,427
Tanga	177,460
Dodoma	259,190
Singida	47,031
Mwanza	71,620
Shinyanga	79,866
Mara	98,233
Pwani	34,832
Morogoro	63,399
Lindi	48,637
Mtwara	90,135
Iringa	8,398
Mbeya	25,915
Total	1,570,889

Source: RVA September 2009

animals, especially children under five years of age. The major contributing factors to poor nutrition are the lack of safe water and sanitation facilities and constrained access to protein-rich food that is not affordable to poor households.

Deterioration of pasture and water in northern and northeastern areas has triggered abnormal migrations of pastoralists in search of pasture and water for livestock. In Longido, it is reported that 95 percent of livestock have out-migrated, mainly southwards to Kilindi and Handeni districts. Abnormal migration has resulted in long trekking distances, resulting in further deterioration of body conditions and increased mortality. Field reports indicate that there were also massive immigrant pastoral herds from Kenya in search of pasture and water, which has increased pressure on available pasture resources in some areas and resulted in increased levels of conflict. Migration of livestock has also decreased household incomes from livestock products. Although households with more livestock tend to be more resilient, successive years of drought have also pushed wealthier households towards food insecurity because of the reduced calving rate, limited stock building and unfavorable terms of trade that have persisted over time.

In the marginal agricultural lowland areas of Rombo, Same, Mwanza, Hai (Kilimanjaro region), Meru, and Arusha (Arusha region), Babati, Hanang, and Mbulu (Manyara region), Kilindi, Handeni, Korogwe, Lushoto and Mkinga (Tanga region), poor rains have led to crop failure, which has reduced local food availability and increased pressure on food prices.

Central areas (unimodal)

In the central zone, particularly the Dodoma and Singida regions, below-normal and uneven distribution of *msimu* rains caused planted crops to wilt and dry in Chamwino, Bahi, Dodoma Rural and Dodoma urban districts (Dodoma Region), and Manyoni and Iramba districts (Singida region), resulting in reduced production. According to preliminary crop forecasts, Dodoma region produced 78 percent of its food requirements and Singida region produced only 69 percent of its cereal requirements. Reduced production has caused early depletion of food stocks and reduced incomes from crop sales. Thus, the hunger season that normally starts in November has started in August. Reduced purchasing power due to higher food prices and limited income sources has also affected food access.

Irrigation and hydropower generation in northeastern and central areas

Food security conditions in northeastern and central areas have also been affected by the impacts of the failed rains on irrigation. Extended dryness has limited irrigation activities in both northeastern areas (Kilimanjaro, Arusha, and Tanga regions) and in the central zone (Dodoma region) by reducing water discharge from catchment areas to streams, springs, and reservoirs. River basins are important in irrigation activities that contribute significantly in production of paddy, fruits, vegetables and pulses. The low water levels in lakes, rivers and ponds have also decreased inland fishing levels due to reduced fish catches, which has increased the prices of fish and sardines. Low water levels have also reduced hydropower generation, resulting in power rationing and reduced industrial productivity, limiting casual labor opportunities and incomes of poor households in urban areas.

Mwanza, Mara, and Kagera regions

Cassava mosaic disease (CMD) and cassava brown streak disease (CBSD) continue to threaten food security for households that depend on cassava for food, labor opportunities, and income in Mwanza, Mara, and some parts of Kagera regions. CMD and CBSD are reportedly spreading to the south. Sweet potato harvesting, which provided some relief in these areas, ended in July. Areas such as Rorya, Bunda and Musoma rural districts (Mara region), whose main staple food is cassava and who do not traditionally process and store sweet potatoes, have experienced early food insecurity. There has been a shortage of cassava due to decreased yield and quality of cassava, thus reducing the preference food (*udaga*) in the area. Cassava production in all other regions outside the Lake Victoria zone (Tanga, Kigoma, Mtwara, Morogoro, and Coast regions) has been stable and have slightly reduced the impact of poor performance of *masika* rains in localized coastal areas which did not receive optimal rains. CMD and CBSD have reduced food availability as well as incomes from cassava sales, thus limiting access to alternative food on the market.

In Kagera region, Banana Xanthomonas Wilt (BXW) has continued to devastate banana production in Bukoba, Muleba, Karagwe, Ngara and Chato districts. Cooking bananas represent a major source of food, as well as a major source of income for smallholder farmers, for the 2.2 million people in the region. This disease attacks all cultivated banana varieties, causing wilting of plants at all ages, and is suspected to spread from plant to plant by insects and farm operations. Continued spread of BXW will limit food availability and access for many small-scale farming households. Cassava is normally an alternative

crop in these areas, but due to the CMD and CBSD outbreaks in Mwanza, Mara and Kagera regions, cassava availability is limited.

Lindi and Mtwara regions

Cashew production is the main source of income for many farmers in Lindi and Mtwara regions, and provides casual labor opportunities to households during spraying and harvesting. Cashew harvesting and marketing is expected to start in mid-October in the cashew growing areas of Lindi and Mtwara regions. Field reports have indicated that the below-normal *msimu* rains have reduced cashew production, affecting food availability in these areas.

Most likely food security scenario (October 2009 to March 2010)

September to December is normally an important short-rains (*vuli*) agricultural season for the bimodal rainfall areas. *Vuli* harvests start in January and normally contribute 32 percent of production in bimodal areas and 18 percent of national production. In the highland areas of Rombo, Lushoto, and Korogwe districts and Kagera and Kigoma regions, the *vuli* harvest contributes 70 percent of the cereal harvests and 80 percent of pulses. In unimodal areas, *msimu* rains normally start in mid-November and last until May. According to the most recent Climate Outlook Forum for both the Southern Africa and East Africa regions, as well as the Tanzania Meteorological Agency (TMA) climatic outlook forecast, the September to December *vuli* rains will be normal to above normal due to the impact of the El Niño event.

Forecasted above normal rains will most likely recharge catchment areas, thus increasing water levels in lakes, rivers, and ponds, which will facilitate increased hydropower production in Hale and Nyumba ya Mungu (in the Pangani River Basin covering the Arusha, Kilimanjaro, and Tanga districts) and Mtera, Kidatu and Kihansi (in Rufiji River Basin). Hydropower supply will enable sustainable running of industrial activities and increase casual labour opportunities in urban centres. Increased water levels will also most likely increase irrigation opportunities in Pangani, Rufiji, Ruaha, and Ruvu river basins and increase water discharge in traditional irrigation reservoirs (important in Kilimanjaro, Tanga and Arusha regions). This in turn will increase food availability.

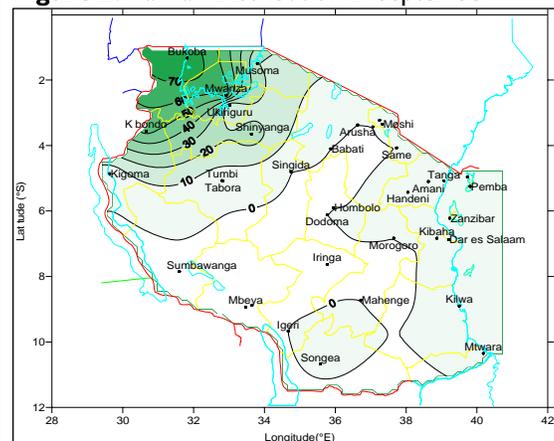
TMA has reported the start of rains in Kagera and Mwanza regions extending southwest in bimodal areas (Figure 2); however, rains have not started in the northern and northeastern parts where drought conditions are critical. As a result, pastoralists have not begun to move their herds back home and food security conditions are continuing to deteriorate.

Although the anticipated forecast is for normal to above normal rains due to El Niño, there is a less likely possibility that rainfall will be below normal. In the event of below-normal rains, food security conditions would deteriorate further. In the northern and northeastern zone, livestock body conditions would continue to deteriorate and livestock mortality would increase due to lack of pasture, water, and long trekking distances. In unimodal areas, reduced rains would shorten the length of the *msimu* crop growing period, crops would not reach maturity, and crop production would significantly be reduced. In addition, agricultural labor opportunities in both bimodal and unimodal areas would be limited. Household food stocks would be depleted further in many households, and more people would turn to markets to source food, placing upward pressure on prices. The food insecure population would increase as the current moderately food insecure population would likely become highly food insecure. However, the most likely scenarios in this Outlook are based on the forecast for normal to above normal rains during the September to December period.

Pastoral/agropastoral areas in northern and northeastern areas

Anticipated above-normal *vuli* rains in September to December are expected to replenish soil moisture, support crop growth, and recharge water points. These rains will most likely provide relief to pastoral areas through rejuvenation of pastures, increased water availability for both humans and livestock, and reduced conflict between crop farmers and pastoralists. This

Figure 2: Rainfall Distribution in September



Source: Tanzania Meteorological Agency

is likely to improve livestock productivity that would boost milk and ghee supply, which in turn will improve incomes of households dependent on livestock. The increased supply of milk, milk products, and vegetables will improve diet quality and the nutritional status of the pastoral and agro-pastoral households. *Vuli* rains will also provide casual labor opportunities in land preparation, planting, weeding and harvesting in rural bimodal areas, thus providing income for casual labor-dependent households and increase their access to food and non-food needs. Consequently, the food security status of pastoral and agropastoral areas is expected to improve during the outlook period (Figures 3 and 4).

However, heavy rains could also result in floods and potentially an outbreak of Rift Valley Fever (RVF) in the northeastern areas. In the event of an RVF outbreak, the Government would impose a quarantine in the area. Since RVF can affect humans in the event of an outbreak, beef consumption would be significantly reduced and households dependent on the livestock industry (e.g., milk vendors, butchers, and abattoir attendants) would lose income.

As the *vuli* harvest begins in January, the food security situation will continue to improve, particularly in areas that have experienced *vuli* failure since 2007. The *vuli* season is the main season for higher-altitude areas (Lushoto, Rombo and Meru districts), where the *vuli* harvest contributes up to 70 percent of total production. The harvest will increase stocks at the household level and decrease the number of people dependent on the market for food purchases. This in turn will most likely reduce prices and provide relief to market-dependent households. Following the harvest, remittances and gifts from relatives in urban areas will most likely drop and government food assistance will be stopped, though school feeding programs in some areas are likely to continue.

March is normally the start of *masika* rains, the main agricultural season in the bimodal lowland areas (with the exception of the higher altitude areas of Lushoto, Rombo, and Meru districts). If March rains are normal and start on time, the pastoral situation will improve further, as animal body conditions and productivity will improve.

Central zone in unimodal areas

While *msimu* rains normally start in November in most parts of unimodal areas, they begin in December in the central zone (Dodoma and Singida regions). In Dodoma and Singida regions, most households derive income from livestock sales, labor, and crop sales. Beginning in December, most casual labor-dependent households will shift from sourcing income from handicrafts to the provision of agricultural labor, as labor opportunities for planting and weeding increase after the start of the *msimu* rains. Increased incomes will improve their ability to purchase food and non-food household needs.

As the rains begin, wild vegetables, rich in vitamins and minerals, will begin to sprout, providing a source of improved nutrition at the household level starting in January. During this period, many households in these areas also collect and dry wild and cultivated vegetables for use in the dry season. In March, the green harvest normally starts in unimodal areas, which will most likely further improve food security conditions in the central zone. Forecasted good rains will motivate farmers in other areas such as the southern highlands (Iringa, Mbeya, Rukwa, and Ruvuma) to release stocks to the market from November to get income for input purchases and to pay farm labor. Together with the expected start of the *vuli*

Figure 3. Most likely food security scenario, October-December, 2009

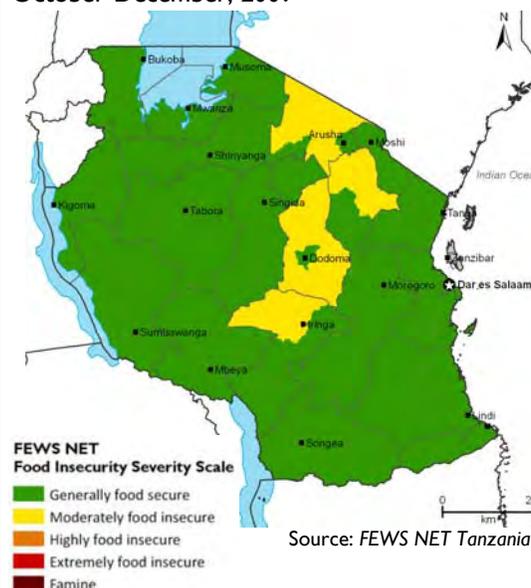
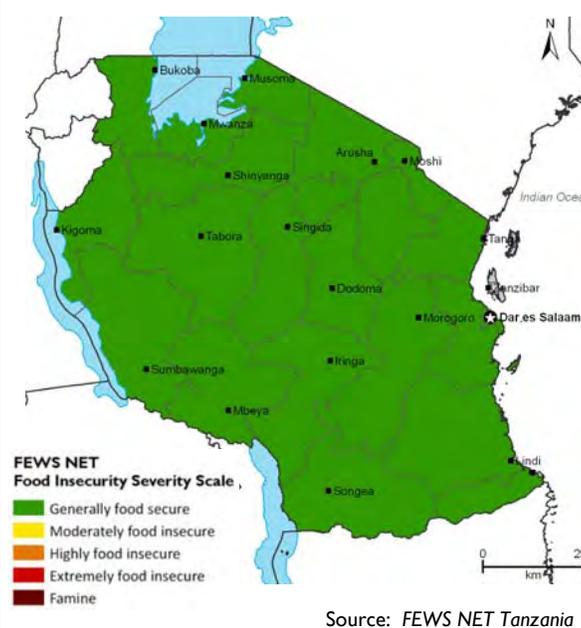


Figure 4. Most likely food security scenario, January-March, 2010



harvest in bimodal areas, this is likely to increase food availability in markets and stabilize prices. Consequently, food security will begin to improve in the central zone during the January to March period (Figure 4).

The start of the rains will improve pastures and water availability for livestock resulting in improved livestock body conditions and productivity, which will increase the incomes of agropastoralists from sales of livestock products and improve their accessibility to food in the central zone. The terms of trade between livestock and cereals will most likely favor livestock holders as animal body conditions will have improved and livestock prices will be high.

Lake Victoria Zone cassava-growing areas

Food security conditions are expected to begin improving in the Lake Victoria cassava-growing areas in October, following the availability of agricultural labor opportunities for poor households, which will provide income for food purchases. By December, farmers are expected to begin harvesting greens, and *vuli* harvests of sorghum, pumpkins, vegetables, sweet potatoes, and maize are expected to start in January. Although food security will improve during this period, CMD and CBSD will continue to reduce the yield and quality of cassava in Mara, Mwanza, Shinyanga and parts of Kagera, where the contribution of cassava to the food basket is very significant. The shortage of cassava will reduce the main staple and preference food of cassava flour meal (udaga) in the area. Following reduced cassava production there will be increased cereal demand. Farmers will increase cereal (sorghum, millets and maize) production and consumption, which are not preferred foods and which have lower yields than cassava in these areas. Reduced cassava production will also reduce casual labor opportunities for planting and weeding of cassava fields, thus reducing incomes for purchasing food and non-food household items for households that are dependent on agricultural casual labor.

The normal to above normal expected rains around the Lake Victoria zone are likely to increase leaching of soil crop nutrients during the *vuli* season, mainly in Kagera, Mwanza, and Kigoma. Water logging affects crop production, mainly for beans and maize crops, because excessive soil water causes yellowing and rotting of the plants due to lack of soil oxygen. Depending on the intensity of rains, water logging is most likely to significantly reduce maize and bean crop production in lowland areas in the Lake Victoria zone. However, excessive soil water will increase paddy production in the area and most likely lead to improved food security during January- March.

Mtwara and Lindi cashew-producing areas

In the Mtwara and Lindi cashew-producing areas, food security conditions are expected to begin improving after the start of the cashew season in November. Although the 2009 poor rains caused below-normal cashew production that will most likely reduce incomes from cashew sales and reduce the purchasing power of cashew farmers, the small income obtained beginning in November when marketing starts will improve food security conditions in these regions. However, limited cashew sales will most likely limit future farmer investments in agricultural activities, which would reduce the level of agricultural casual labor opportunities for households in rural areas.

Armyworm outbreaks (nationwide)

Armyworm outbreaks typically occur during February. Depending on the intensity of infestation, the amount of rains, and how fast the government responds to control an outbreak, their effect could reduce crop production that can lead into food insecurity in both bimodal and unimodal areas. It is important to continue monitoring moth traps that are laid in various places to provide early warning information to combat potential infestations.

Table 2: Events that could affect the food security outlook

Geographic Focus Area	Possible events in the next 6 months that would change the most likely scenario in this area	Impacts on food security conditions	Likelihood of occurrence*	Key variables to monitor
Northern, northeast, and northern coastal areas in the bimodal areas	RVF outbreak in pastoral areas following heavy rains	Pastoralists will lose substantial income from livestock sales to buy food grains.	Unlikely	RVF outbreak
Maize and pastoral areas	Uncontrolled armyworm outbreak	Reduced food and pasture production	Unlikely	Armyworm outbreak
Cassava-growing areas in Kagera, Mwanza, Mara, Kigoma, and Tabora regions	Infestations and spreading of Cassava CMD and CBSD slows down in affected areas	Increased production of a buffer crop.	Unlikely	Spread and intensity of CMD and CBSD; size of food insecure population
Kagera region	Infestation and spreading of BXW slows down in affected areas	Increased productivity of banana crop.	Unlikely	The spread and intensity of BXW

* Probability levels	Description
Unlikely	Could occur in the time period if conditions changed moderately
Very unlikely	Could occur in the time period if conditions changed significantly



Maize is the main staple crop in Tanzania. Rice and beans are also very important, the latter constituting the main source of protein for most low- and middle-income households. Dar es Salaam is the main consumer market in the country. Arusha is another important market and is linked with Kenya in the north. Dodoma represents the central region of the country, a semi-arid, deficit area. Kigoma is an important cross-border market with connections to both the Democratic Republic of Congo and Burundi. Mtwara sits in a south coastal deficit area while Songea and Mbeya represent the southern highlands. Tanga is also a coastal town in the north, with trade connections with Kenya.

Monthly prices are supplied by FEWS NET enumerators, local government agencies, market information systems, UN agencies, NGOs, and other network and private sector partners.

