Tanzania Food Security Outlook

January to June 2010

- Food security at the national level remains generally satisfactory. Markets are well supplied across the country, although food stocks continue to diminish as the hunger season approaches the end in bimodal areas and is at its peak in unimodal areas. As an increasing number of households are now purchasing food from markets, food prices have increased, which limits access to food for poor households in both urban and rural areas.

- Ongoing heavy rains in northeastern areas (Same and Handeni), the central zone (Dodoma, Morogoro Region), and the southern highlands (Songea) have displaced more than 10,000 people, caused sporadic flooding, and destroyed infrastructure and crops in low-lying areas. However, in the rice-growing areas of Kilombero, Kilosa, Bahi, Manyoni, Mbarali, Kyela, Mwanza and Shinyanga, the excess rains have benefited late-planted rice crops and provided for increased casual labor opportunities in both unimodal and bimodal areas.

- Rangelands conditions have significantly improved after the start of *vuli* rains in November/December in the northern and northeastern areas that were drier than normal from rainfall deficits and overgrazing. However, these areas continue to experience food insecurity following reduced milk availability and income from milk and animal sales due to deaths of mainly lactating and pregnant animals during the drought period. Milk production will most likely remain low during the January-June period because the gestation period for cattle takes nine months. If *masika* rains are normal and start on time (in March), the rangeland situation and animal body conditions will continue to improve. With the *masika* harvests, food availability will increase, and prices are expected to drop, thus improving food security conditions in the northern and northeastern areas.

- In the central zone, poor rains in 2009 caused an early start to the hunger season, resulting in moderate food insecurity in Dodoma region. The normal start of the 2010 *msimu* season has facilitated land preparation and planting, which is providing casual labour opportunities and improving the purchasing power of labor-dependent households. If the *msimu* rains perform well, food security conditions will most likely continue to improve in March, when the green harvest begins.

**Seasonal calendar and critical events**

![Seasonal calendar and critical events](image)

**Figure 1. Current estimated food security conditions, January 2010**

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Current food security conditions

Food security at the national level remains generally satisfactory. Markets are well supplied across the country; however as the hunger season approaches the end in bimodal areas and is at its peak in unimodal areas, food stocks continue to diminish, forcing many households to source their food from markets, thus increasing demand and food prices. Access to food for poor households in both urban and rural areas is most likely being hampered by continued high prices of grains that have remained above the five-year average in all markets across the country. However, agricultural labour opportunities have increased across the country in both unimodal and bimodal areas compared to the past two previous seasons, following the ongoing farm operations facilitated by the continuing rains across the country. This will continue to provide an important source of income to labour-dependent households in rural areas, thus increasing purchasing power.

The ongoing heavy rains in northeastern areas (Same and Handeni), the central zone (Dodoma and Morogoro regions), and the southern highlands (Songea) have destroyed crops in low-lying areas and displaced 10,839 people in Kilosa District in Morogoro region. In these areas, the maize crop has been destroyed by waterlogging and leaching; however, the excess rains have also favored rice growth. The government is providing food assistance and shelter to the displaced population.

In September 2009, the Food Security Information Team (FSIT) identified 1.5 million food insecure people in 63 districts during the Rural Vulnerability Assessment (RVA). This population has continued to receive food assistance from the Government, and the food insecure population is expected to have declined since the September RVA, due to the food distributions, as well as the impact of the vuli and msimu rains on pasture regeneration, livestock recovery, and labor opportunities.

Northern and northeastern areas (bimodal)

After the start of vuli rains in November/December, rangelands conditions have significantly improved in the northern and northeastern areas that were drier than normal from rainfall deficits and overgrazing. However, these areas continue to experience food insecurity following persistent reduced milk availability and income from milk and animal sales. Reduced animal productivity culminated in the deaths of mainly lactating and pregnant animals during the August-November drought period. At the onset of vuli rains in November/December, many animals suffered from bloating and diarrhea due to high consumption of pastures with low fiber content. The slow recovery of livestock conditions has continued to negatively affect cattle prices, thus making the terms of trade between cattle and grains unfavorable to pastoralists. However the return of pastoralists, who moved away with their animals from their households in search of pasture and water during the drought period, is most likely improving provisions at the household level.

Crop production, especially maize, beans, and sunflowers, is faring well, and crops are at different stages of growth between knee high and grain filling. Crops planted in the highland areas (banana, coffee, potatoes, fruits and vegetables) are doing well and are providing labour opportunities (for weeding) and green vegetables to farmers and markets. However, in some parts of Arusha, Kilimanjaro, and Tanga regions, the start of vuli rains was delayed, and some households chose to reduce area planted or not to plant at all due to consecutive failure of the vuli rains since 2007.

Central areas (unimodal)

In central regions, the hunger season started earlier than normal due to below-normal crop production due to poor 2009 msimu rains, and currently all districts of Dodoma region are experiencing moderate food insecurity conditions.

The ongoing heavy msimu rains that started in December 2009 have significantly improved rangeland conditions, facilitated agricultural activities, increased agricultural labour opportunities for labor-dependent households, and improved vegetable availability and thus dietary diversity for many households. However these rains have led to localized flooding and destroyed infrastructure in Dodoma and Morogoro (rail and roads), limiting the movement of people and food.

Mwanza, Mara, and Kagera regions

Cassava mosaic disease (CMD) and cassava brown streak disease (CBSD) continue to reduce cassava production and limit labor opportunities and incomes from cassava production in Mwanza, Mara, and some parts of Kagera regions. The areas that received adequate rains, such as Tarime, Sengerema, and Bunda, have started harvesting early-planted vuli crops. Sweet potato harvesting has just begun and is also improving the food supply in these areas.
In Kagera region, Banana Xanthomonas Wilt (BXW) disease has continued to reduce 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. Ongoing heavy rains will facilitate banana (in areas that have not been infected by BXW), coffee and maize, yam and sweet potato growth. However, prolonged rains have hampered drying of beans causing them to rot in the field thus reducing farmers’ income and the supply of an important source of protein in the region.

Lindi and Mtwara regions
Although cashew production was reported to be lower than normal during the 2009 agricultural season following below normal rains, ongoing cashew sales are providing income to farmers. Likewise the ongoing msimu rains reported in the area are facilitating agricultural activities (planting and weeding) and thus providing labour opportunities.

Most Likely Food Security Scenario (January to June 2010)

The most likely scenarios are based on the following assumptions:

- **Vuli** rains will extend abnormally to the end of January and reduce the impact of its late start;
- **Masika** rains will be normal and start on time (the forecast has not yet been released for the March- May period);
- Agricultural casual labor opportunities will increase following increased rains;
- Input voucher system will increase production output of poor farmers;
- Crop harvests from **vuli** and **msimu** rains will increase food availability, reduce market dependency and thus lower grain prices;
- Milk and cattle offtake will remain low following high number of animal deaths;
- Armyworm outbreaks will be contained;
- Impact of CMD and CBSD in cassava will be reduced by switching to cereal consumption;
- **BXW** will continue spreading in Kagera region;
- Outmigrated pastoralists and animals will return back.

Food security conditions during the January to March period are expected to improve in bimodal areas following the harvests, improved livestock body conditions, and increased labor opportunities both in rural and urban areas. In unimodal areas food security for the identified insecure population will improve with the green harvest in March. If **msimu** rains and **masika** rains (expected to begin in March) perform well, food security conditions are expected to be satisfactory across the country by June, with the exception of some localized areas where crops could be washed away by floods or affected by pests.

January to June is normally an important agricultural season in both unimodal and bimodal areas. **Vuli** agricultural season harvests start in January in bimodal rainfall areas and normally contribute 32 percent of production in bimodal areas and 18 percent of national production. In the highland areas of Rombo, Lushoto, Korogwe districts and Kagera and Kigoma regions, the **vuli** harvest contributes 70 percent of the cereal harvests and 80 percent of pulses in these areas. The **masika** season starts in March through June. Both **vuli** and **masika** seasons are important for annual (maize, sunflower, beans, peas, cassava, potatoes and yams) and perennial (fruits, coffee, bananas, and tea) crops. They are also important for recharging water resources for irrigation, animals, fishery and domestic use.

In unimodal areas, **msimu** rains normally start in mid-November and last until May. Thus the January- June period is important in providing agriculture labour opportunities (planting, weeding, fertilizer application, and harvesting) in bimodal and unimodal areas. Increased labour opportunities during this period increase incomes of casual labour dependent households and improve their ability to access food. The harvests obtained during this period determine the household and national food production and thus the self sufficiency ratio for food production as well as levels of income from agriculture production.
Vuli rains that started in mid-November and in some places in early December 2009 in most parts of bimodal areas have abnormally extended into January. This will facilitate maturity of the late-planted crops (maize, beans and sunflower) and increase vuli harvests of these crops in most bimodal areas. However the late start of the vuli season will most likely prolong the hunger season, and prolonged vuli rains will most likely limit the drying of early planted crops, especially beans (in Kagera region, and Tarime district where rains started normally in September/October 2009) that require a dry spell to dry in the field. Prolonged vuli rains will also interfere with the dry spell that is important for masika season land preparation operations.

The ongoing heavy rains will most likely recharge catchment areas and increase water levels in lakes, rivers, and ponds, which will facilitate increased hydropower production in Hale and Nyumba ya Mungu dams (in the Pangani River Basin covering the Arusha, Kilimanjaro, and Tanga districts) and Mtera, Kidatu and Kihansi dams (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 exploitation of irrigation potential 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 production and availability at households and in markets in both rural and urban areas.

In 2008, the government introduced an inputs (fertilizer, seeds and pesticides) voucher system in all regions across the country targeting poor farmers with a view to boost crop yield and farmers’ incomes. This year the number of beneficiaries has increased from 700,000 to 1.5 million households. Increased use of agricultural crop inputs will most likely increase crop production if the rains perform well through the season. This will most likely increase food availability, farmers’ incomes and also most likely reduce food prices.

**Pastoral/agro pastoral areas in northern and northeastern areas**

In northern and northeastern areas, vuli rains start was erratic. In some places it started mid-November while in other places it started early December 2009. The amount of rains received also varied from place to place. In some parts of Arusha, Kilimanjaro, and Tanga regions, the start of the vuli rains was delayed, and some households, especially in the lowlands of Siha, Moshi rural and Hai districts (Kilimanjaro region), and Arusha rural and Meru districts (Arusha region), chose to reduce area planted or not to plant at all due to consecutive failure of the vuli rains since 2007. This will most likely reduce the vuli season production potential and the delayed start of vuli rains in some areas will most likely prolong the hunger season in those areas to January when green harvest is expected to start.

During the January to June 2010 period, animal body conditions will most likely improve following improved pasture and water availability. However livestock off take will continue to be low due to rebuilding of stocks following the high incidence of animal deaths during the drought period and at the onset of the vuli rains. Milk production will most likely remain low during this period because many lactating and pregnant animals died during the drought period and the gestation period for cattle takes nine months. As a result, milk availability and incomes from milk sales will remain low. On the other hand sheep and goats (which have a shorter gestation period and are less affected by drought) will most likely fill the gap created by the reduced number of cattle for sale. If the rains continue to perform well, grain availability in the area will increase and food prices will most likely decline. Income from sheep and goats and reduced grain prices will improve the ability of pastoral and agro pastoral households to access food and reduce the ongoing food assistance in the area.
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 that do not grow *masika* crops). If *vuli* rains continue unusually up to end of February, they will interfere with land preparation and planting of *masika* crop, thus reducing *masika* crop production. If *masika* rains are normal and start on time, the rangeland situation will improve further, animal body conditions will continue to improve, and those who did not plant *vuli* crops in fear of crop failures will plant their crops during *masika* season. *Masika* harvests will increase food availability and thus improve food security conditions in the area.

**Central zone in unimodal areas**

*Msimu* rains normally start in December in most parts of central zone areas (Dodoma and Singida regions). In these regions, most households derive income from livestock sales, labour, handicrafts, charcoal, and crop sales. Starting in January, most casual labor-dependant households normally 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. Field reports have indicated the normal start of rains, with a few areas receiving above-normal amounts, facilitating the improvement of rangelands and agriculture operations, and providing casual labour opportunities. At the end of *msimu* rains in April, grain harvesting is expected to start and improve the availability of food. *Msimu* rains will also increase casual labour opportunities in the grape farms in Dodoma region. Increased incomes from casual labour opportunities will most likely improve their ability to purchase food and non-food household needs. Improved rangelands will improve animal body conditions and productivity that will increase livestock keepers’ incomes through sales of animals and animal products. In this zone, poultry keeping and sales are important economic activities that provide significant incomes to many households. Government efforts to control the Newcastle disease in poultry, which was killing up to 80 percent of the animals every year, will most likely facilitate building and stabilizing poultry stocks for household consumption and sales, thus improving incomes and protein supply in their meals.

As the *msimu* rains continue production of wild vegetables and fruits (baobab and tamarind) rich in vitamins and minerals will start. This will provide incomes and vitamins and minerals to many households 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/April, the green harvest will start in unimodal areas; this will most likely further improve food security conditions in the central zone. The grain harvest in the central zone is expected to start in May. This will increase food availability in markets and most likely stabilize prices.

The start of the rains has improved pastures and water availability for livestock resulting in improved livestock body conditions and productivity, which will most likely 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. However, the ongoing heavy rains have continued to destroy communication infrastructure (roads and rail) and crops in the flood-prone areas, of Dodoma and Morogoro regions which will most likely cause localized food insecurity by hindering farm operations and washing away crops in the field. This may provide local labor opportunities in road construction and rice production.

Sunflower and groundnuts are important oil crops grown in the central zone. Recently there has been an increased demand for these crops after increased oil extraction processors at farmers’ level. If *msimu* rains continues to perform well, sunflower and groundnuts production will increase and increase farmers’ incomes and thus improve their purchasing power for food and non food commodities.

**Lake Victoria cassava-growing areas**

There was a delay in the start of *vuli* rains in most areas of Lake Victoria zone except for Kagera region, and some parts of Mara and Mwanza regions where *vuli* rains started in September. In other areas *vuli* started in November. As a result, there was a delay in crop planting in many parts that will consequently delay the start of crop harvests. Extended *vuli* rains however will be beneficial to the late planted crops (sorghum, pumpkins, vegetables and sweet potatoes and maize) that are expected to be harvested in February. 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. Following reduced cassava production there will be increased cereal demand as many households will shift from cassava to alternative crops. As this zone is traditionally a maize deficit area, increased cereal demand will most likely increase maize prices. The ongoing Government agriculture input voucher
system will most likely boost up cereal (sorghum, millets and maize) production and consumption, which were constrained by poor soil fertility and low input use in the past.

Cotton is an important cash crop in the Lake Victoria zone. It provides casual labor opportunities during planting, weeding, thinning, spraying, harvesting and transporting from the fields. Some households tend to rely on cotton to substitute food crop production. The possibility of farmers shifting to growing cotton, along with the government inputs subsidy for cotton and cereals, will most likely reduce the impact of cassava disease threat by June when cotton marketing is expected to start and the *masika* crop matures.

**Mtwara and Lindi cashew-producing areas**
Cashew is an important cash crop in Mtwara and Lindi, and provides labour opportunities, capital for investment, and a means for purchasing food for many households. The 2009 poor *msimu* rains caused below-normal cashew production that has reduced incomes from cashew sales and most likely reduced cashew farmers’ purchasing power for food and non food items. Although income obtained from cashew sales is likely to carry farmers to the next cereal (maize, sorghum and rice) harvest expected to start in March, this income will most likely not last until the next cashew harvest expected to start in November 2010. Limited cashew sales will most likely limit food purchases in the cashew production zone. In areas that grow coconuts, groundnuts, cassava, and sesame, that are expected be harvested starting March through June, production of these crops will most likely increase food availability and incomes at household level and significantly improve food security conditions.

**Armyworm outbreaks (nationwide)**
Armyworm outbreaks typically occur during February. This year the outbreak started earlier than normal (January). Depending on the intensity of infestation, the amount of rains, and how fast the government responds to control an outbreak, the outbreaks could reduce crop production and lead to localized food insecurity in both bimodal and unimodal areas (Iringa, Dodoma, Morogoro, Shinyanga, Kilimanjaro, Mtwara, Lindi). It is important to continue monitoring moth traps that are laid in various places to provide early warning information to combat potential infestations.

**In Kagera region**, continued spread of BXW will limit food availability and access for many small-scale farming households. Ongoing heavy rains will facilitate banana (in areas that have not been infected by BXW), coffee and maize, yam and sweet potato growth. However, prolonged rains have hampered drying of beans causing them to rot in the field thus reducing farmers’ income and the supply of a main source of protein in the region.
Table 2. Events that could affect the food security outlook

<table>
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<tr>
<th>Geographic Focus Area</th>
<th>Possible events in the next 6 months that would change the most likely scenario in this area</th>
<th>Impacts on food security conditions</th>
<th>Likelihood of occurrence*</th>
<th>Key variables to monitor</th>
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<tr>
<td>Northern, northeast, and northern coastal areas in the bimodal areas</td>
<td>RVF outbreak in pastoral areas following heavy rains Failure of <em>masika</em> rains</td>
<td>Pastoralists will lose substantial income from livestock sales to buy food grains. Reverse the food security improving situation</td>
<td>Unlikely</td>
<td>RVF outbreak <em>Masika</em> start, amount distribution and cessation</td>
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<tr>
<td>National wide</td>
<td>Uncontrolled armyworm outbreak Widespread floods</td>
<td>Reduced food and pasture production Increased malaria and water borne diseases</td>
<td>Unlikely</td>
<td>Armyworm outbreak, intensity Floods incidences</td>
</tr>
<tr>
<td>Central Zone</td>
<td>Poor performance of <em>msimu</em> <em>Quelea-quelea</em> outbreak</td>
<td>Food security condition deteriorate further</td>
<td>Unlikely</td>
<td><em>Msimu</em>, amount distribution and cessation <em>Quelea-quelea</em> outbreak, intensity</td>
</tr>
<tr>
<td>Cassava-growing areas in</td>
<td>Infestations and spreading of Cassava CMD and CBSD slows down in affected areas</td>
<td>Increased production of a buffer crop.</td>
<td>Unlikely</td>
<td>Spread and intensity of CMD and CBSD; size of food insecure population</td>
</tr>
<tr>
<td>Kagera region</td>
<td>Infestation and spreading of BXW slows down in affected areas</td>
<td>Increased productivity of banana crop in BXW affected areas.</td>
<td>Unlikely</td>
<td>The spread and intensity of BXW</td>
</tr>
</tbody>
</table>

* 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.