TANZANIA Food Security Outlook July to December 2009

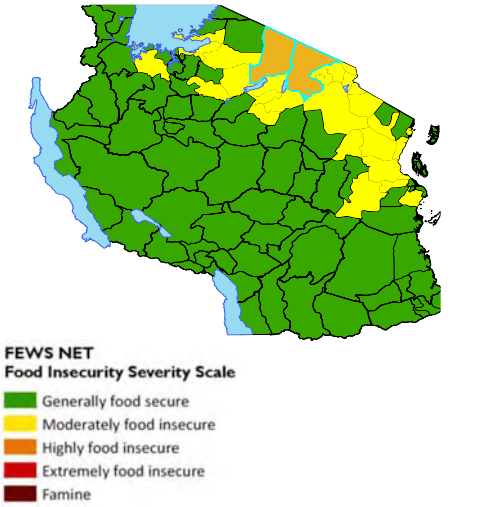
- The 2009 *masika* precipitation deficit, in combination with successive seasons (2005-2009) of below-average rainfall, have led to deterioration of pastures and browses and decreased livestock productivity in pastoral areas of Arusha, Manyara, and Kilimanjaro. Decreasing incomes from livestock products have limited food access of sedentary household members who do not migrate with animals.

- Sixty-one districts produced food crops below their requirements due to the below-average rainfall, and the hunger season is likely to start early in bimodal areas and in parts of the unimodal areas. The poor precipitation levels will most likely trigger abnormal migration patterns from pastoralist areas to cropping areas, increasing the potential for conflict in these areas, up to mid-September when the *vuli* rains are expected.

- *Vuli* rains expected in mid-September and *msimu* rains expected in mid-November are likely to increase agricultural labor opportunities. The green harvest expected from the *vuli* season in December will most likely decrease the extent of food insecurity in the country.

- According to the May 2009 preliminary crop forecast conducted by the Ministry of Agriculture, Food Security, and Cooperatives (MAFC), total food production during 2008/09 was estimated at 10.8 million MT, against total requirements of 10.53 million MT.

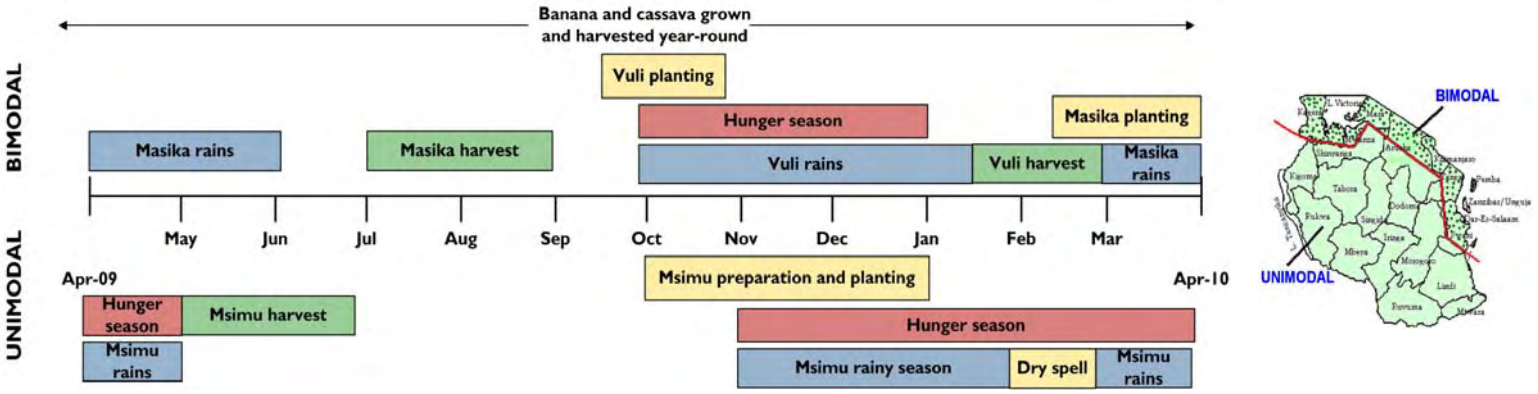
Figure 1. Current estimated food security conditions, July 2009



For more information on FEWS NET's Food Insecurity Severity Scale, please see: www.fews.net/FoodInsecurityScale

Source: *FEWS NET*

Seasonal calendar and critical events



Source: *FEWS NET*

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Current food security conditions

The *masika* season has ended in the bimodal areas, and seasonal rainfall totals have been below average, while average vegetation conditions in the northern, northeastern, central and coastal areas are below the long-term average (Figures 2 and 3). The *masika* harvest would have reduced market dependence, and eased pressure on food grain prices by June in bimodal areas. With the exception of Kagera and Kigoma regions which received adequate rains, the failure of *masika* rains in most parts of the bimodal areas has intensified the food insecurity situation in the localized areas that were experiencing food insecurity after *vuli* failure. The below-average rains, in combination with successive seasons (2005-2009) of poor rainfall, have also caused deterioration of pastures and browses, leading to decreased livestock productivity, especially in the districts of Ngorongoro, Monduli, Longido (Arusha Region), Simanjiro and Kiteto (Manyara Region) and Same and Lower Moshi (Kilimanjaro region). Decreased levels of milk production have reduced incomes from livestock products (milk, ghee, and skins sales) in these areas, thereby limiting pastoral households' access to grain. Decreased milk production also affects the nutritional status of sedentary household members who do not migrate with animals. Deterioration of pastureland has triggered abnormal migrations of pastoralists in search of pasture and water for livestock.

In the central zone (Dodoma region), below-normal *msimu* rains caused planted crops to wilt and dry in Chamwino, Bahi, Dodoma Rural and Dodoma urban areas, resulting in reduced production. Due to the above factors, the hunger season is most likely to start earlier than normal this year (the hunger season typically starts approximately in October in bimodal areas and in November in unimodal areas).

Msimu crop harvests (maize, rice, sorghum, potatoes, and pulses) are nearly completed in unimodal areas and are underway in parts of bimodal areas (Kagera, Kigoma, parts of Mwanza and Shinyanga regions) that received *masika* rains. Following these harvests, there has been some improvement in food availability across the country as traders continue to move food from the surplus producing areas (the southern highlands, the main maize surplus producers) to urban markets and other areas with food deficits (Dar es Salaam, Arusha, and Mwanza, Morogoro, Pwani, Mtwara, Lindi, Manyara, and Tanga markets). The National Food Reserve Agency (NFRA) is expected to start buying grain (maize and sorghum) from the surplus producing areas in July to replenish its stock. NFRA stocks are vital in mitigating domestic shortfall and are expected to moderate market supplies and prices in deficit areas. However, access to these foods is limited for weak resource market dependent households.

According to the preliminary crop forecast conducted by the Ministry of Agriculture Food Security and Cooperatives (MAFC) in May 2009, total food production during the 2008/09 agricultural cycle has been estimated at 10.8 million MT, including 5.0 million MT of cereals and 5.8 million MT of non-cereal food crops. This level of production is six percent greater than the five-year average, but only 0.2 percent higher than last year's production. The modest improvement in production this year has been attributed to the failure of the 2008/2009 *vuli* rains, poor performance of 2009 *masika in* most of the bimodal areas, soil degradation, low input (e.g. fertilizer) use due to increased input prices, and crop pests and diseases, including rodents, quelea-quelea, cassava mosaic virus, banana bacterial wilt, and bean flies.

Figure 2. RFE percent of normal March-30- June 2009

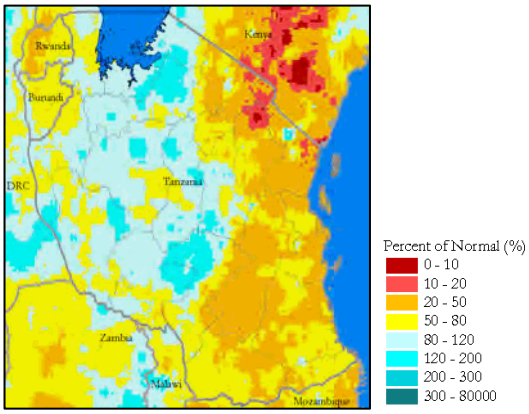
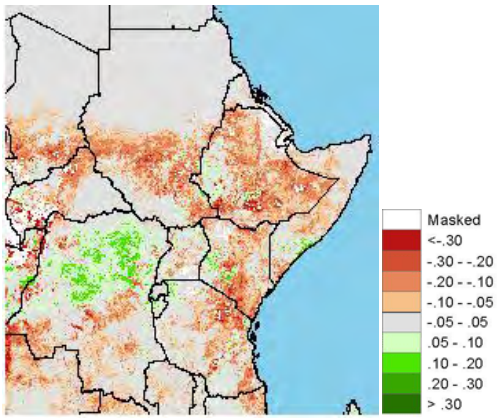


Figure 3. NDVI June 2009 dekad 3 compared to the long-term average



Source: *NASA/USGS*

Total food requirements for Tanzania, estimated based on population projections, are 10.53 million MT, indicating that production in the 2008/09 cycle meets roughly 103 percent of the total expected demand (Table 1). Disaggregated by crop type, cereal production is expected to meet 77 percent of expected demand, while non-cereal harvests are forecast to equal 145 percent of estimated requirements. Despite low cereal production, carry-over stocks from the previous harvest held by farm households, traders and the government's strategic grain reserve are likely to make up for any deficits.

Although non-cereal production is greater than the estimated requirements, these crops (bananas, round and sweet potatoes, pumpkins, yams, fruits, and vegetables) are difficult to transport from surplus to deficit areas, both because they are perishable and because the price differential between surplus and deficit areas is often inadequate to cover transport costs. This hampers wide distribution of these food commodities, and is likely to keep grain prices at high levels in deficit-producing areas.

Although Tanzania has the potential to be self-sufficient in food production, with surplus available for export, its overwhelming dependency on rain-fed agriculture leads to highly variable production levels from year to year. Although food production in 2008/2009 exceeds demand, most of the foods are perishable non cereals. Tanzania also has an extensive and porous border with low-producing countries, which results in the outflow movement of grains.

Table 1. A comparison of cereal and non-cereal production, measured as a proportion of domestic consumption needs) from 2000/01-2008/09

Production year:	2003/04	2004/05	2005/06	2006/07	2007/08	**Average**	2008/09
National level SSR for cereal and non-cereal crops (%)	103	91	110	109	87	100	103
National level SSR for cereal crops (%)	93	90	85	93	133	98.8	77
National level SSR for non-cereal crops (%)	118	93	111	137	104	112.6	145

Source: *MAFC- AGSTATS for Food Security reports*

Coffee harvesting and marketing have started in the coffee/banana growing areas in Kagera, Kigoma, Mara, Kilimanjaro, Mbeya and Ruvuma regions. The current price offered for coffee farmers is lower than that of last year. In Kagera, for example, farmers have been offered 400 TZS while last year the price was 750 TZS. Reduced expected incomes from coffee sales will constrain farmers in their expected agricultural future investment, and thus limit agricultural labor opportunities for households dependent on casual labor. Cotton harvesting has also started in Mwanza, Mara, Shinyanga, and Tabora regions. Cotton production is likely to be lower than last year following market constraints that started to surface last year. This will most likely reduce cotton farmers' income, thus reducing their purchasing power and future investment in the next agricultural season.

Crop disease outbreaks

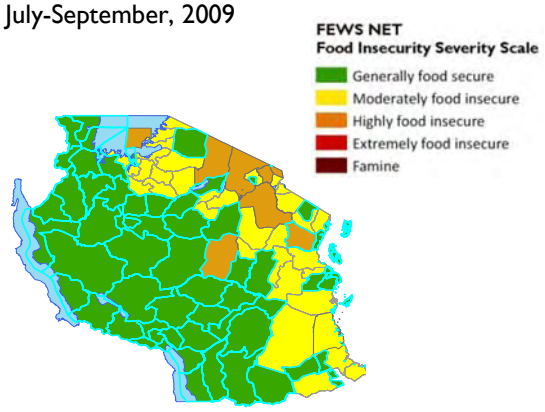
Cassava mosaic disease (CMD) and cassava brown streak disease (CBSD) continue to threaten the cassava-dependent livelihoods in Mwanza, Mara, and some parts of Kagera regions, and the diseases are spreading to the south. The MAFC food preliminary forecast has indicated that although the acreage of cassava in Mara region (where cassava is the main staple food) increased from 45,157 ha to 54,329 ha between 2008 and 2009, the forecasted production will decrease from 90,314 MT in 2008 to 81,344 MT in 2009. Sweet potato harvesting in these areas is providing some relief but is expected to end in July. Areas such as Rorya, Bunda and Musoma rural districts (Mara region), whose main staple food is cassava and which do not traditionally harvest sweet potatoes, are likely to have early food insecurity. Cassava production in all other regions outside the Lake Victoria zone (Tanga, Kigoma, Mtwara, Morogoro, and Coast regions) has been stable and is likely to reduce the impact of poor performance of *masika* rains in localized areas of the coastal areas which did not receive optimal rains.

Bananas, especially 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 Kagera region. Banana Xanthomonas Wilt (BXW) was first reported in 2002 in Uganda's Mukono district. BXW attacks all cultivated banana varieties, causing wilting of plants at all ages. Currently a BXW outbreak has been reported in Bukoba, Muleba, Karagwe, Ngara and Chato districts of Kagera. The government and farmers are advised to carry out eradication campaigns that helped to contain the disease in 2007.

Most likely food security scenario, July–December, 2009

The northern, northeastern and coastal bimodal areas experienced failed consecutive rain seasons (*vuli* and *masika*). These areas expected *vuli* harvests between mid-January and February and *masika* harvests in July, but both harvests failed. The failed seasons have eroded incomes and thus purchasing power of households dependent on casual labor. It is therefore most likely that the hunger period has extended from failed 2008/09 *vuli* rains and will continue until the start of the next *vuli* harvest in January in the northeast, northern and coastal areas. Decreased income from casual labor will limit the purchasing power of poor households and will most likely continue until the start of the *vuli* rains in September in bimodal areas. Lack of income from *masika* season production will most likely force households to sell their assets to buy food and non-food household needs. In the Central zone, where *msimu* rains were below normal, these areas may become food insecure and the hunger season may begin earlier than November when it is normally expected to start.

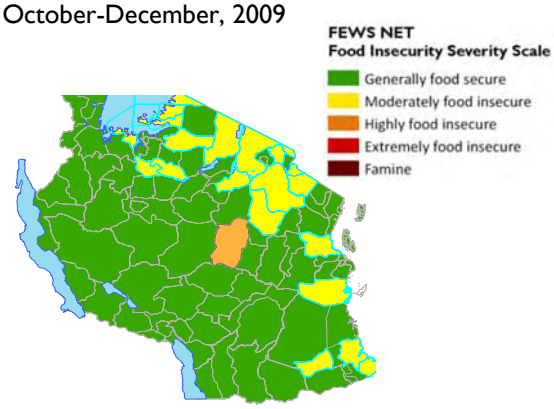
Figure 4. Most likely food security scenario, July-September, 2009



Source: *FEWS NET Tanzania*

Normally precipitation is not expected in July-September. Extended dryness following failed *vuli* and *masika* rains in bimodal areas and below normal *msimu* rains in the central zone will lead to soil moisture far below normal. This will most likely cause abnormal migration in the northern and northeast areas in search of pastures and water earlier than normal, which will increase pressure in areas with some pasture where pastoralists will graze up to October when *vuli* rains are expected to begin. The deteriorated pastures will most likely lead to increased deterioration of animal conditions due to increased animal trekking that may increase disease outbreaks. Deteriorated animal conditions will reduce incomes from animal sales and negatively affect the terms of trade between livestock and grains. In Kilimanjaro and Arusha coffee and banana highlands areas, where zero grazing is most common, it is most likely that the cost of feeding animals will increase due to depleted pasture and decreased crop residues following low production caused by below normal *masika* rains.

Figure 5. Most likely food security scenario, October-December, 2009



Source: *FEWS NET Tanzania*

September to December is normally an important short-rains *(vuli)* agricultural season for the bimodal rainfall areas of northern, northeastern, coast and Lake Victoria regions of Tanzania. Also, *msimu* rains start in mid-November. If *vuli* rains start on time, they will most likely replenish soil moisture in bimodal areas and provide relief to pastoral areas through rejuvenation of pastures and recharging of water points. The rains would also increase feed for animals kept under zero grazing. This is likely to improve livestock productivity that will boost milk and ghee supply which is likely to provide income to households dependent on livestock. The start of *vuli* and *msimu* rains will most likely provide agricultural casual labor opportunities in rural areas, thus providing incomes to the casual labor-dependent households and increase their access to food and non-food needs.

Despite the generally favorable harvest at the national level, concerns remain for localized areas where *vuli* and *masika* rains were not satisfactory for plant growth. The MAFC preliminary food crop production estimates indicate that production in 61 districts in the 17 regions (Arusha, Kilimanjaro, Manyara, Tabora, Singida, Shinyanga, Lindi, Mtwara, Pwani, Tanga, Mbeya, Ruvuma, Dodoma, Iringa, Morogoro, Mwanza, and Mara) will not meet total food requirements for the next six months until the next harvest occurs in bimodal areas and eight months in unimodal areas. This situation will cause many households including the net producers to be food insecure, especially in areas where production was below food

requirements as a result of poor rainfall performance. The number of people expected to be affected, and the duration and severity of food insecurity, will be reviewed by the August- September 2009 rapid vulnerability assessment.

Banana bacterial wilt disease (BXW) in Kagera region is expected to spread from July to September, when farmers thin plants and trim banana dry leaves, which increases the chances for spreading BXW. There is also a tendency during this period for low producer households to source their banana plantain requirements from the market, which increases chances for spreading the disease.

October to December is a hunger season in the bimodal areas, while the hunger season in the unimodal areas is from November to May. During the hunger season, food prices are normally at peak levels in Mtwara, Lindi, and Pwani regions but will most likely coincide with increased incomes from cashew sales. However in other areas, high prices will most likely limit household access to food. Although the government has imposed a cereal export ban since May 2008, informal trade is likely to continue due to Tanzania's porous borders, the country's poor marketing system, and price differentials between Tanzania and its neighbors which favor exporters. Close monitoring of informal trade flows is recommended given their likely impact on food prices and supply in Tanzania.

In Dodoma, where most crops wilted during the *msimu* season due to insufficient soil moisture, food insecurity is likely to intensify during this period. However bimodal areas that will be highly food insecure are likely to start recovering as December approaches, as the green harvest increases food availability. On the other hand, recovery is expected to start in Dodoma in March when the green harvest begins (Figure 5).

Decreased incomes of coffee farmers due to reduced coffee prices will most likely affect access to alternative sources of protein (sardines, fish, beef, and milk) other than beans that is grown locally in coffee growing areas. Low coffee prices are also most likely reducing investment in agriculture and asset acquisition by coffee farmers. This is likely to limit the casual labor opportunities that are financed by incomes from coffee sales.

Table 2. Events that could affect the food security outlook

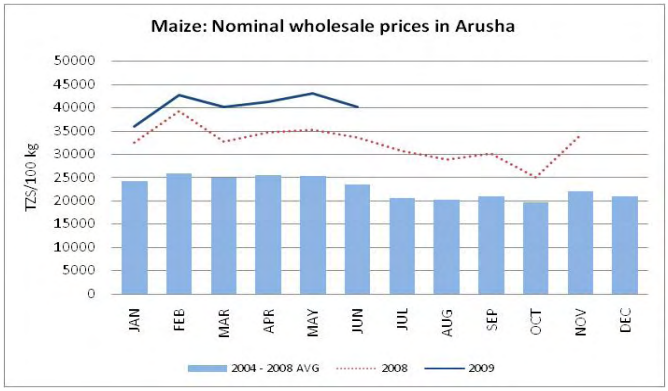
Geographic Focus Area	Possible events in the next 6 months that would change the most likely scenario in this area	Impacts on food security conditions	Likelihood of occurrence *	Key variables to monitor
Northern, northeast, and northern coastal areas in the bimodal areas	Households will respond to reduced productivity and purchasing power by increasing livestock sales and labour migration	Pastoralists will earn substantial income from livestock sales and buy food grains.	Unlikely	Size of food insecure population
Cotton-growing areas in Mwanza, Shinyanga, Mara, and parts of Kagera and Tabora	Market for cotton is available and offering good prices to cotton growers	Cotton-growing farmers will earn substantial incomes from cotton sales.	Unlikely	Cotton market and cotton prices
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	Increased productivity of banana crop.	Unlikely	The spread and intensity of

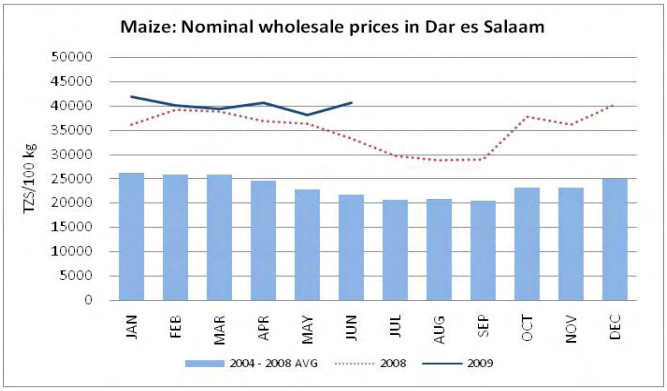
	slows down in affected areas			BXW

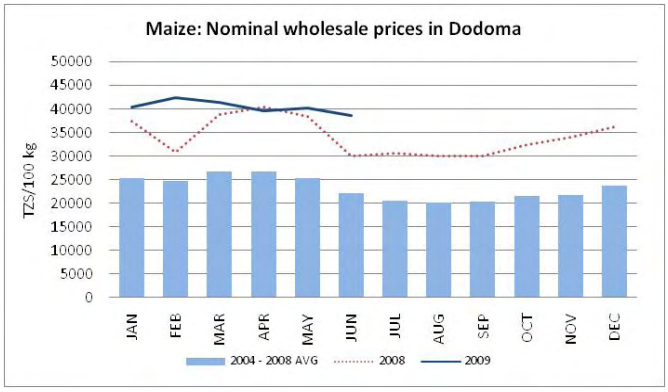
* Probability levels	Description
Unlikely	Could occur in the time period if conditions changed moderately
Very unlikely	Could occur in the time period if conditions changed significantly

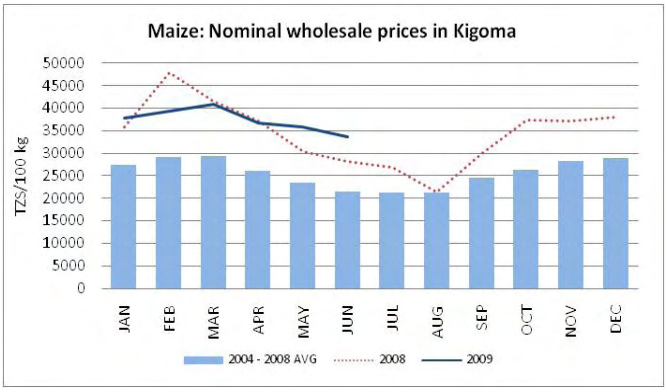
Monthly prices are supplied by FEWS NET enumerators, local government agencies, market information systems, UN agencies, NGOs, and other network and private sector partners.

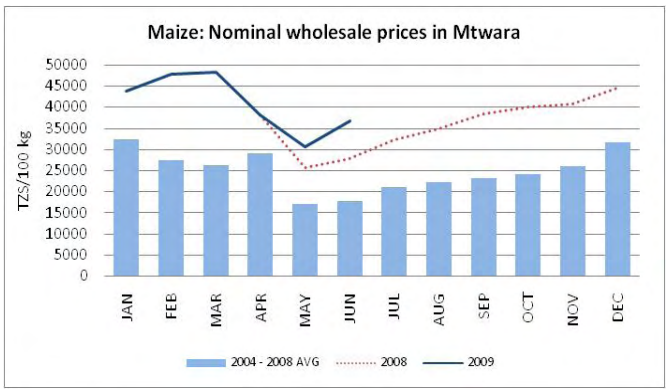
Maize is the main staple crop in Tanzania. Rice and beans are also very important, the latter constituting the main source of protein for most low- and middle-income households. Dar es Salaam is the main consumer market in the country. Arusha is another important market and is linked with Kenya in the 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.







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TZS/100 kg
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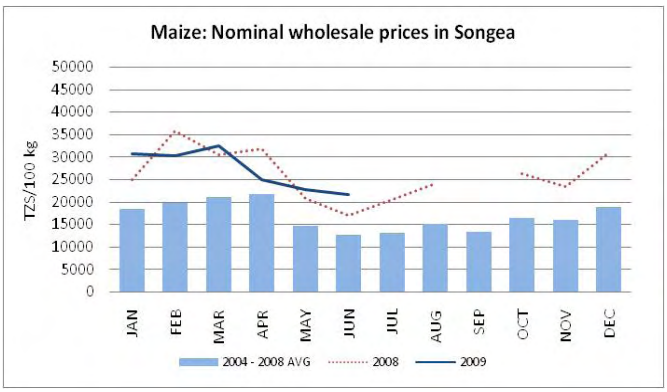
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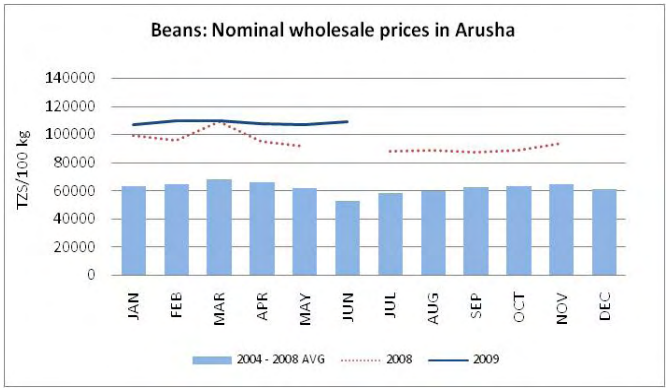
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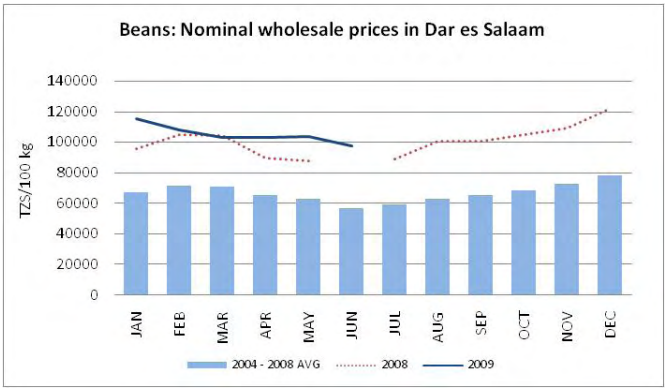
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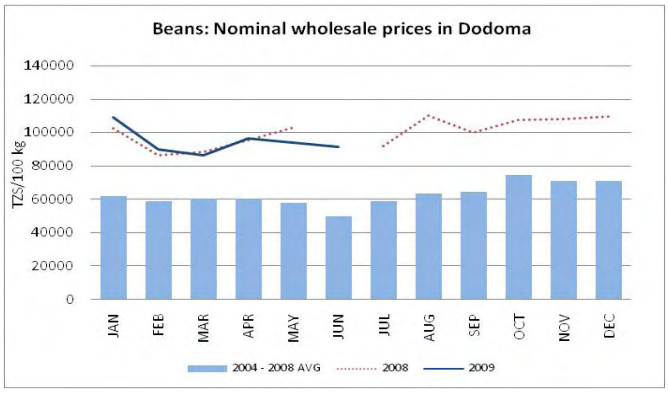
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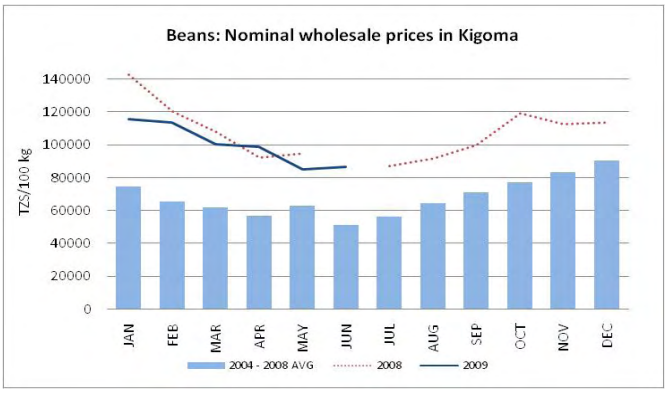
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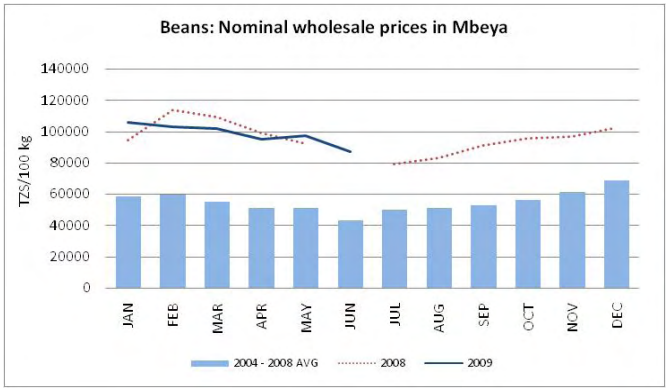
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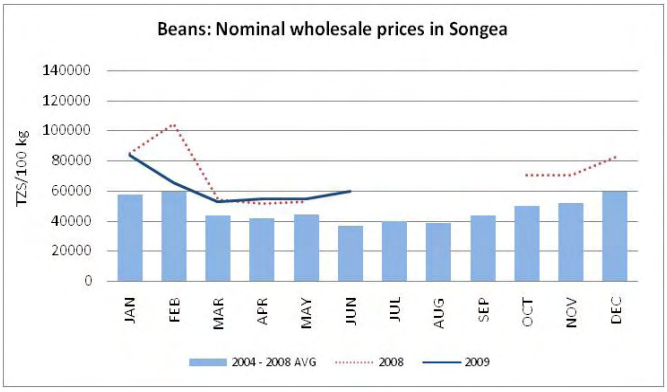
2004 - 2008 AVG
2008
2009


Beans: Nominal wholesale prices in Songea
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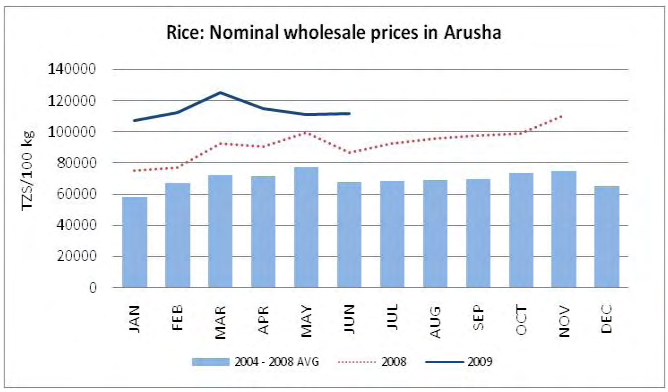
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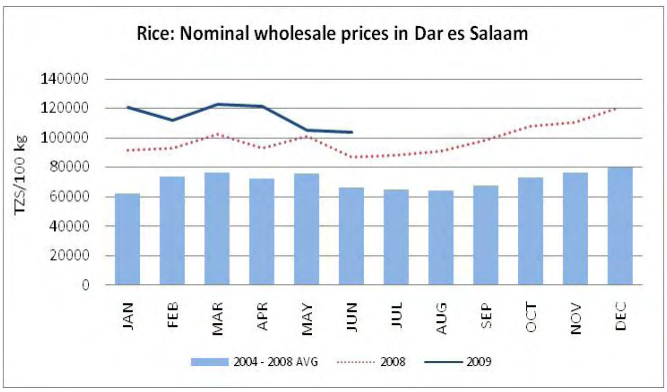
Rice: Nominal wholesale prices in Dar es Salaam
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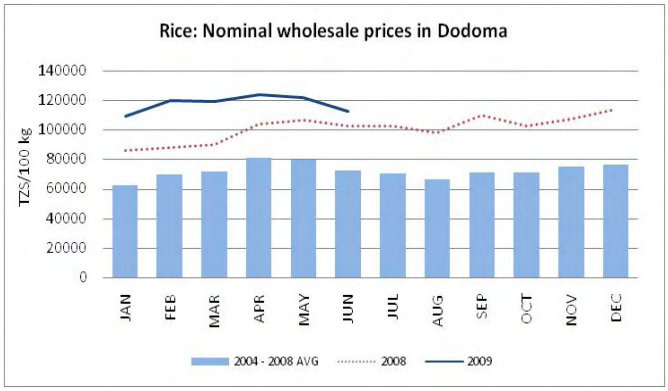
Rice: Nominal wholesale prices in Dodoma
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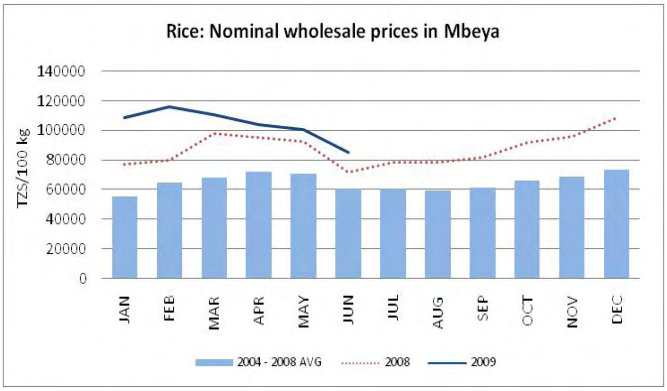
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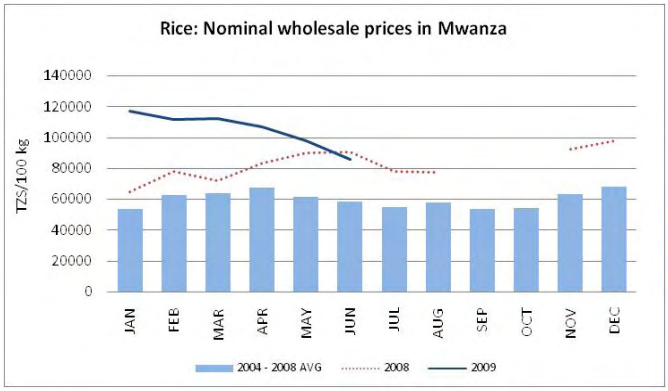
2009


Rice: Nominal wholesale prices in Mwanza
TZS/100 kg
140000
120000
100000
80000
60000
40000
20000
0
JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC
2004 - 2008 AVG
2008
2009

Rice: Nominal wholesale prices in Tanga
TZS/100 kg
140000
120000
100000
80000
60000
40000
20000
0
JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC
2004 - 2008 AVG
2008
2009