

# Food Market and Supply Situation in Southern Somalia

## SOMALIA



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Data collected in  
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## **Acknowledgement**

This report is drawn from the findings of a programme mission by Annalisa Conte, Issa Sanogo and Simon Clements from August 30th to September 20th, which was undertaken to assess the suitability of cash-and-voucher based responses in southern Somalia.

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## I. Summary of Findings

1. The purpose of this report is to provide insights into markets and supply conditions in responding to food demand of famine-affected people in southern Somalia. It is based mainly on secondary data review and insights from key informant traders and partners. The dynamic nature of markets is acknowledged and therefore the findings are interpreted against the historical information available during the period of the mission (30 August-20 September 2011). The following are the major findings:
2. *Market Structure and Trader Response Capacity:* Trade is well established throughout Somalia. Supplies are secured by big traders who have the financial and logistic capacity to deal with restrictions on movement in order to ensure supply from import sources to wholesalers and retailers through their networks. While individual retailers may play a limited role in any supply-side intervention, those organized in associations (including women trader associations) could play a role in supplying local staple commodities (maize or sorghum) to the beneficiaries of humanitarian interventions;
3. *Food Supply Situation:* More than 60 percent of the Somalia food supply is imported. The share of rice imports in the total cereal supply has remained stable between 17-21 percent in recent years (2005-2010)--including during the global food price crisis of 2008. Recent increases of rice and wheat flour imports have not had any major impact on domestic retail prices due to transmission effect of global prices. Furthermore, imported cereals, rice in particular, are consumed mainly by urban and better-off households. Imported cereals and cross-border trade inflows are not enough to fill the overall domestic cereal (mainly maize and sorghum) supply gap. The 2011 maize and sorghum production of the main harvest (Gu) is estimated at 36,600 tons, 32% of the 5-year (2006-2010) average and 26% of the long-run (1995-2010) average. The 2011 domestic cereal supply gap is estimated at 10,000-15,000 MT per month based on FSNAU estimates of the contribution of 2011 domestic production to total supply. Maize and sorghum prices are dependent on domestic availability of maize and sorghum across southern Somalia. In the absence of significant improvement of the supply of maize and sorghum, cereal prices could remain abnormally high in the short run;
4. *Market integration:* Cereal markets are well integrated with global and regional markets. Domestic cereal-market integration has, however, been hampered by trade restrictions from neighbouring countries, internal trade-restrictions due to increased insecurity and domestic supply-failure in the main local-cereal source markets of the Shabelle and Juba Valleys and the Sorghum Belt. In general, markets are weakly integrated within Gedo region. The situation has also deteriorated between Mogadishu and the rest of Middle Shabelle since 2008 compared to 2003-2007. The districts of Adan-Yabal, Luuq, Belet Xaawa are also weakly integrated with the rest of Southern Somalia. Alongside interventions to meet nutrition, health, WASH and livelihoods needs, free food distribution would be an appropriate response in areas where humanitarian access is granted and markets are weakly integrated;
5. *Price Volatility:* Current cereal price-fluctuations point to a local cereal—in particular sorghum, price crisis which is by far more severe than in 2008. Red sorghum and white maize prices more than tripled in major markets of southern Somalia compared to 2003-2007 averages, which reflect better the long term seasonal patterns of local cereal prices in recent years. Although the current prices of both imported rice and wheat flour are lower than their peak levels of 2008,

they are more than 200% higher than 2003-2007 averages. Compared to April-June 2008, the average price of red sorghum more than doubled in many areas of Bay, Bakool, Gedo, Lower Shabelle and Mogadishu. Substantial white maize price increases, ranging from 30-100%, were also recorded in the same areas. Despite recent decreases in maize and sorghum prices driven by off-season harvests, price levels still remain significantly high above their 5-year (2003-2007) averages in most regions in southern Somalia.

6. *Economic Access to Food:* Households spend between 40 to 70% of their income to buy food from markets in southern Somalia. Failed production resulting in a substantial decline in crop incomes, high cereal prices due to limited supply of maize and sorghum and high global prices of rice, high transaction costs due to insecurity, reduced incomes from drought-affected livestock sales, limited labour opportunities and increasing burden of accumulated debts have all resulted in severe deterioration of household purchasing power and physical access to food. Compared to 2003-2007 averages, the decrease in the purchasing power of both daily wage rate and the price of goat in terms of sorghum ranges between 20-80% in all the regions. A protracted decline of households' purchasing power is seen in many regions, particularly in Bay and Gedo regions since 2007.
7. *Recommendation:* Based on the above findings, the mission concludes that in view of limited humanitarian access for free food distributions, an intervention to increase the supply of locally produced cereals through markets along with demand-side interventions (e.g. cash and vouchers) that improve purchasing power of the affected households are critical. From a nutrition perspective, a voucher programme would offer promise to improve beneficiaries' access to food commodities of improved nutrition quality in areas where such commodities are available on local markets and trade flows are not severely undermined by security problems.
8. Summary of findings on market functioning, challenges and intervention opportunities are further disaggregated at regional level in the table below.

		Regions								
		Gedo	Bakool	Hiiran	Bay	Lower Shabelle	Middle Shabelle	Middle Juba	Lower Juba	
Market Functioning	Structure	<b>Deficit or Surplus Status</b>	Surplus in normal year; deficit in 2011	Deficit in normal year, deficit in 2011	Surplus in normal year, deficit in 2011	Surplus in normal year, deficit in 2011	Surplus in normal year, deficit in 2011	Surplus in normal year, deficit in 2011	Surplus in normal year, deficit in 2011	Deficit in normal year, deficit in 2011
		<b>Physical Access</b>	- Humanitarian access limited and improving - Remoteness from the ports	- Humanitarian access limited and improving - Remoteness from the ports	- Humanitarian access limited and improving - Good road access to ports (Bossasso and Mogadishu) and to Ethiopia	- Humanitarian access highly limited - Good road and port access to Mogadishu	- Humanitarian access highly limited - Good road and port access to Mogadishu	- Humanitarian access limited and improving - Good road and port access to Mogadishu	- Humanitarian access highly limited - Good access to ports (Kismayo and Mogadishu)	- Humanitarian access limited and improving - Good access to port (Kismayo)
		<b>Trade environment</b>	Trade restrictions in some areas	Trade restrictions in some areas	Trade restrictions in some areas	None	None	None	None	Trade restrictions in some areas
	Conduct	<b>Competition</b>	Uncertain	Some competition	Markets are competitive	Some competition with potential hoarding	Some competition with potential hoarding	Some competition with potential hoarding	Some competition	Some competition
		<b>Price Volatility</b>	High volatility of prices of red sorghum and white maize. Prices higher than 2008 levels	High volatility of prices of red sorghum and white maize. Prices higher than 2008 levels	Low volatility of cereals compared to 2007/2008	High volatility of prices of red sorghum and white maize. Prices higher than 2008 levels	High volatility of prices of red sorghum and white maize, except in Afgooye. Prices higher than 2008 levels	High volatility of prices of red sorghum and white maize, especially in Mogadishu. Prices higher than 2008 levels	High volatility of white maize compared to 2007/2008	High volatility of white maize compared to 2007/2008
	Performance	<b>Price Integration</b>	Poor integration of maize and sorghum markets within the region. Low integration with the rest of Southern Somalia	Low integration with rest of Southern Somalia	High integration with rest of Somalia and Ethiopia	High integration with Mogadishu. Cereal markets are integrated within the region	High integration with Mogadishu. Cereal markets are integrated within the region	High integration with Central Somalia but integration of the sorghum market has deteriorated within the region	Cereal markets are integrated with rest of the Juba trade basin	High price integration
		<b>Cross-border trade Flows</b>	Small cross-border trade flows to Lugh through Beled Hawa	Small cross-border trade to El Barde from Ethiopia	Small cross-border trade flows with high potential for increase from Ethiopia	Limited or no potential for cross-border trade	Limited or no potential for cross-border trade	Limited or no potential for cross-border trade	Uncertain	Some potential for cross-border trade from Kenya though restricted
		<b>Market Availability and Stocks</b>	Highly limited availability and very low stocks of red sorghum	Availability of white maize and red sorghum below normal	Availability of red sorghum and white maize very low	Availability of red sorghum, white maize and red rice below normal	Very low availability for white maize, scarce for red sorghum and normal for red rice. Very low stocks	Very low availability for white maize, scarce for red sorghum and normal for red rice. Very low stocks	Low availability for white maize and red rice.	Low availability for white maize and red rice.
		<b>Capacity to increase supply</b>	Limited	Limited	Some capacity	Limited	Some capacity	Limited	Limited	Limited
		<b>Capacity to increase supply</b>	Limited	Limited	Some capacity	Limited	Some capacity	Limited	Limited	Limited

Households Economic Access to Markets	Dependency on markets	Food insecure are well connectd to markets	Food insecure spend 58% of household incomes on food purchased from markets	Food insecure spend 70% of household incomes on food purchased from markets	Food insecure spend 60% of household incomes on food purchased from markets	Food insecure spend 45% of household incomes on food purchased from markets	Food insecure spend 45% of household incomes on food purchased from markets	Food insecure spend 64% of household incomes on food purchased from markets	Food insecure spend 64% of household incomes on food purchased from markets
	Purchasing power	Terms of trade from 2003-2007 avg.: - Goat/Sorghum (- 80%) - Daily wage/Sorghum (-40%)	Terms of trade from 2003-2007 avg.: - Goat/Sorghum (-40%) - Daily wage/Sorghum (-80%)	Terms of trade from 2003-2007 avg.: - Goat/Sorghum (- 20%) - Daily wage/Sorghum (-20%)	Terms of trade from 2003-2007 avg.: - Goat/Sorghum (- 80%) - Daily wage/Sorghum (-80%)	Terms of trade from 2003-2007 avg.: - Goat/Sorghum (- 80%) - Daily wage/Sorghum (-60%)	Terms of trade from 2003-2007 avg.: - Goat/Sorghum (- 70%) - Daily wage/Sorghum (-70%)	Terms of trade from 2003-2007 avg.: - Goat/Sorghum (- 50%) - Daily wage/Sorghum (-40%)	Terms of trade from 2003-2007 avg.: - Goat/Sorghum (- 60%) - Daily wage/Sorghum (-40%)
Main Challenges	<ul style="list-style-type: none"> <li>- Internal trade restrictions undermining trade flows</li> <li>- Low market integration with rest of Southern Somalia</li> <li>- High price volatility</li> <li>- Low supplies</li> </ul>	<ul style="list-style-type: none"> <li>- Internal trade restrictions undermining trade flows</li> <li>- Low market integration with rest of Southern Somalia</li> <li>- High price volatility</li> <li>- Low supplies</li> </ul>	<ul style="list-style-type: none"> <li>- Internal trade restrictions undermining trade flows</li> <li>- Low supplies</li> </ul>	<ul style="list-style-type: none"> <li>- Limited humanitarian access</li> <li>- High price volatility</li> <li>- Potential hoarding behaviours</li> <li>- Lack of cross-border trade opportunities to increase supplies of red sorghum and white maize</li> </ul>	<ul style="list-style-type: none"> <li>- Limited humanitarian access</li> <li>- High price volatility</li> <li>- Potential hoarding behaviours</li> <li>- Lack of cross-border trade opportunities to increase supplies of red sorghum and white maize</li> </ul>	<ul style="list-style-type: none"> <li>- High price volatility</li> <li>- Potential hoarding behaviours</li> <li>- Lack of cross-border trade opportunities to increase supplies of red sorghum and white maize</li> </ul>	<ul style="list-style-type: none"> <li>- Limited humanitarian access</li> <li>- High price volatility</li> <li>- Low supplies</li> </ul>	<ul style="list-style-type: none"> <li>- Internal trade restrictions undermining trade flows</li> <li>- High price volatility</li> <li>- Low supplies</li> </ul>	
Interventions Opportunities	<ul style="list-style-type: none"> <li>- Food distribution</li> <li>- Direct supplies of maize / sorghum through markets combined with food vouchers</li> </ul>	<ul style="list-style-type: none"> <li>- Food distribution</li> <li>- Direct supplies of maize / sorghum through markets combined with food vouchers</li> </ul>	<ul style="list-style-type: none"> <li>- Food distribution</li> <li>- Direct supplies of maize / sorghum through markets combined with food vouchers or cash transfers</li> </ul>	<ul style="list-style-type: none"> <li>- Direct supplies of maize / sorghum through markets combined with food vouchers</li> </ul>	<ul style="list-style-type: none"> <li>- Direct supplies of maize / sorghum through markets combined with food vouchers</li> </ul>	<ul style="list-style-type: none"> <li>- Food distribution</li> <li>- Direct supplies of maize / sorghum through markets combined with food vouchers</li> </ul>	<ul style="list-style-type: none"> <li>- Direct supplies of maize / sorghum through markets combined with food vouchers</li> </ul>	<ul style="list-style-type: none"> <li>- Direct supplies of maize / sorghum through markets combined with food vouchers</li> </ul>	<ul style="list-style-type: none"> <li>- Food distribution</li> <li>- Direct supplies of maize / sorghum through markets combined with food vouchers</li> </ul>

Table 1. Matrix on the Market and Supply Situation in Southern Somalia<sup>1</sup>

<sup>1</sup> Source: Summary based on USAID, FSNAU and FEWSNET (July 2011), FSNWG (July 2011) and Authors' own analysis.



## II. Markets and Supply Conditions

### a. Market Structure and Trader Response Capacity

9. WFP undertook a review of the structure, conduct and performance of the cereal markets in Somalia in 2009<sup>2</sup>. This review showed that the main actors in the cereal markets included importers, wholesalers, shopkeepers and open-air retailers. Trade is widely established as a livelihood in Somalia, as most traders have more than 10 years of experience. Traders are well equipped in communication, transport and storage facilities. The higher-end of the supply chain actors (importers and wholesalers) have greater transport means (motor cars, trucks and ships) and storage facilities (warehouses and stores) than retail shopkeepers and open air retailers.

#### i. Importers

10. It is reported that there are many importers dealing mainly with sugar and rice through the ports of Bossasso, Mogadishu and Berbera. Some of these importers are also engaged in wholesale and retail activities to increase the turnover. WFP's 2009 assessment suggested that there was a high concentration of sellers at the import-level of the supply chain, with the five largest importers controlling over 45% of the market share in all three ports of Somalia (Bossasso, Mogadishu and Berbera). There are three types of transactional arrangements: Importers procure commodities overseas and mainly sell through their own network of wholesalers and retailers in Somalia and neighbouring countries; they source supplies and sell them to selected wholesalers in Somalia based on prior arrangements; and sell directly to other traders in Somalia, whether wholesaler or retailer, on a first-come-first-serve basis.
11. Despite the expansion of the TFG areas, domestic security remains a serious problem which constrains trade within Somalia. Mogadishu itself is divided into 16 areas under control of different warlords. Importers based in Nairobi told the mission that they most commonly sell directly to wholesalers and retailers from their warehouses. However, a number of importers use their own network of wholesalers and retailers, which are located in almost every region, to manage the movement of food-commodities and security-related issues. In general, these importers use primarily their own trucks to move goods and rely on their trusted transport companies to move additional quantities when necessary. To overcome security constraints and transport restrictions within Somalia, import companies hire drivers on a multi-clan basis, whereby clan members take responsibility for driving trucks through their respective regions.
12. These importers are generally contracted by humanitarian organizations including WFP to supply food commodities to beneficiaries. They are interested in supplying white maize or red sorghum to beneficiaries through vouchers, under the condition that partners participate in the monitoring of the actual delivery. They can arrange maize supplies from Uganda, Sudan and Ethiopia within two weeks, Southern Africa within three weeks and imports from as far as Pakistan and India within 4-8 weeks, as long as there is a clearly defined demand. They also anticipate that the end of high sea tide in end-September will reduce the necessity to import through big vessels.
13. The importers cautioned against a supply-side intervention that publicly identifies a partner as a donor of food commodities to serve for monetization purposes. Such an intervention would carry some security risks for them. The traders noted that leakage was an inevitable part of any

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<sup>2</sup> WFP (2009): An Analysis of the Structure, Conduct and performance of Cereal and Sugar Markets in Somalia: Understanding the Impacts of Food Aid on Market Performance, December.

humanitarian intervention. In their experience, food aid recipients give up or sell part of their food requirements to meet their local “taxation” requirements and other non-food needs.

14. Although they consider piracy as a major challenge, increased patrols and escorts by NATO forces, private companies and some foreign governments has made it less risky to import compared to last year. Given that Somali importers are most familiar with markets in the Middle East and South Asia, a shift to imports of red sorghum and white sorghum from neighbouring countries and Southern Africa could carry some challenges in establishing new trade partnerships and trade routes within the current time frame. Consequently, commercial imports of red and white sorghum could remain unchanged despite the current high prices unless there is a guaranteed demand.
15. From the meetings held with importers, there is evidence of limited availability of food commodities on local markets. Importers noted that food supply in Mogadishu has been further compromised by the recent increase in humanitarian activity. Reportedly, non-beneficiary households’ food access could be compromised by the fact that some humanitarian organisations are “buying up” food supplies from the markets. Furthermore, it was reported that some agencies are purchasing food from commercial ships given limited availability of commodities on local markets. Consequently, these commercial imports are declared at the customs as humanitarian food aid which affects official customs revenues.

*ii. Wholesalers*

16. There are two categories of wholesalers: those handling imported food stuffs (sugar and rice) and those dealing with locally-produced white maize and red sorghum. The WFP 2009 report (mentioned above) indicates a high number of wholesalers (Table 2) and a high degree of competition.
17. According to wholesalers, the interference of Al Shabaab has affected their supply capacity of locally produced maize and sorghum. Excessive taxation of farmers has resulted in migration and labour shortages for local production. Movement restrictions and harassment by Al Shabaab have led to an increased cost of doing business. The closure of Bakara market, the main wholesale market in Somalia, had undermined supplies temporarily in southern Somalia. Reportedly, other neighbouring satellite markets and warehouses in the port of Mogadishu could not handle the volumes and the number of wholesalers handled by Bakara market alone, resulting in supply distortions to other regions.

Type of trader	Market type				
	Satellite market in surplus region	Main market in surplus region	Main market in deficit region	Satellite market in deficit region	Import hub <sup>¶</sup>
<b>Maize &amp; Sorghum</b>					
Open air retailers	161	399	182	41	-
Wholesalers	27	44	99	18	-
<b>Sugar and rice</b>					
Shopkeeper retailers	-	-	314	179	514
Wholesalers	-	-	61	37	269
Importers	-	-	0	0	15

Table 2. Mean Number of Traders in Different Categories of Markets

<sup>¶</sup>Import hubs are classified as main markets and surplus for imports.

Source: WFP Somalia (2009): *An Analysis of the Structure, Conduct and Performance of the Cereal and Sugar Market*, January.

### iii. *Retailers and Female Participation in Trade*

18. *Retailers/Shopkeepers* engage more in the trade of rice and sugar than of maize and sorghum. They operate from fixed locations (either permanent or temporary) in specific main or satellite markets. They procure their supplies from wholesalers operating in the same markets or pool resources to buy supplies (sugar and rice) from importers at the port. They in turn sell their products to consumers frequenting the markets in which they are located.
19. *Open air retailers* are predominantly women, who trade mainly in maize and sorghum (both locally produced and food aid) and to a limited extent also in rice and sugar. They operate in open spaces or under temporary makeshift structures. Some of them move from one local market to another within the same district. During harvest periods they mainly procure maize and sorghum from producers and sell to consumers while during the lean periods they procure from wholesalers. Open air retailers also engage in the sale of food sourced from beneficiaries. Those operating in border markets engage in cross-border movements of limited volumes of food aid. In addition, they also act as food aid assembly agents for wholesalers.
20. Since these retailers deal mainly with locally produced staple food commodities, their numbers are higher in the markets located in surplus regions than in deficit regions. They account for approximately 86% and 90% of all sorghum and maize traders in satellite and main surplus markets respectively, compared to 70% and 64% in similar markets in deficit areas. This segment of the supply chain is less concentrated due to low barriers to entry and their limited asset base.
21. While individual women retailers may not be key players for large scale supplies, organized women trader associations could play a role in supplying locally produced staples for humanitarian interventions. The mission understands that the Somali Women's Entrepreneur Association (SWEA), a network of women businesses and retailers in Mogadishu as well as elsewhere, could be used to redeem food vouchers. However, it would be important not to focus only on female traders to avoid potential conflicts with male traders.
22. The mission had discussions with IIDA, a women's organisation that has recent experience implementing a one-month voucher programme for IDP populations, with an Italian-based NGO. The project was implemented using local knowledge and relationships with female-run *magazine* shops. Families were identified at three IDP settlements and were issued with a food voucher. The major challenge faced by IIDA during the implementation of the voucher programme was lack of supplies in the retail shops. The commanding role of multiple intermediaries (gatekeepers, transitional government district councils, etc.) was also seen as a bottleneck. It would therefore be important for humanitarian agencies to work closely with gatekeepers and sensitize them at the same time as the community. This would reinforce their community responsibility.

### b. *Food Availability and Supply Challenges*

23. Somalia is a structurally food deficit country, where cereal imports (mostly rice and wheat flour) cover roughly 60% of its food requirements (Figure 1)<sup>3</sup>. Over the last five years (2005-2010), the contribution of domestic supply (mainly maize and sorghum production) to the overall supply has been erratic, ranging from 26% to 57%. This is mainly due to successive seasons of rain

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<sup>3</sup> At the time of the mission in September 2011, the data posted by GIEWS was not adjusted for the last update of the cereal balance produced by FSNAU. The GIEWS data also overlaps on two years in line with the seasonal calendar. This would result in discrepancies when comparing with other sources. Regardless of the source, import data on Somali could suffer from two major shortcomings: (i) underestimation of imports due to incomplete coverage of all imported goods and cross-border trade; (ii) local- currency valuation of imports can fail to reflect current or appropriate exchange rates.

failure and drought, combined with inefficient and deteriorating irrigation infrastructure. The local cereal production is further undermined by increased conflict and civil insecurity, the worst the country has seen since the collapse of the state in the early 1990s.

24. The supply gap is generally covered by commercial imports of rice, wheat and food aid. It is noteworthy that the contribution of rice imports remained relatively stable between 17-21% of the total cereal supply over 2005-2010, suggesting that commercial rice import is relatively inelastic to price increases (Figure 2). The volume and share of rice imports to the total cereal supply remained almost unchanged during the global food price crisis of 2008 compared to before and after the crisis. Meanwhile the share of food aid increased substantially to 51% of the total cereal supply in 2008-09, in response to the global food price crisis. This adjustment compensated for the poor performance of the domestic supply in 2008-09. It is also apparent that between 2005 and 2010 with the exception of 2008, the share of food aid was relatively stable between 17-19% of the total supply in normal or good years of domestic production. The limited response of rice imports in 2008 could be due to a combination of factors, such as the signal effect of the arrival of food aid, lack of incentives to increase imports in the absence of effective demand in a context of high concentration of the import sector.
25. Based on the FSNAU estimate of the 2011 local cereal production at about 15-20% of food requirements and assuming that the additional supply gap is due to production failure in southern Somalia and that the shares of food aid and commercial imports (rice, wheat flour and others) remain unchanged from their 5-year (2005-2009) average, the local cereal supply gap necessary to meet the annual food requirements (about 700,000 MT) is estimated at 10,000-15,000 MT per month. However, the timing and quantities of supplies required to fill this gap should take seasonality and the next *Deyr* harvest into account.
26. The analysis of the composition of cereals supplies over the last five years suggests that commercial imports of rice, a high value staple food consumed preferably by urban households, are likely to respond to the demand of households with high purchasing power, including through cash transfers. In the absence of increased purchasing power and increased supply of maize and sorghum, the supply gap would be either filled in by food aid or it could lead to a further increase of the overall cost of the food basket. Increased supply of maize and sorghum in conjunction with imported cereals are therefore necessary to meet overall demand and stabilize local cereal prices in Somalia.

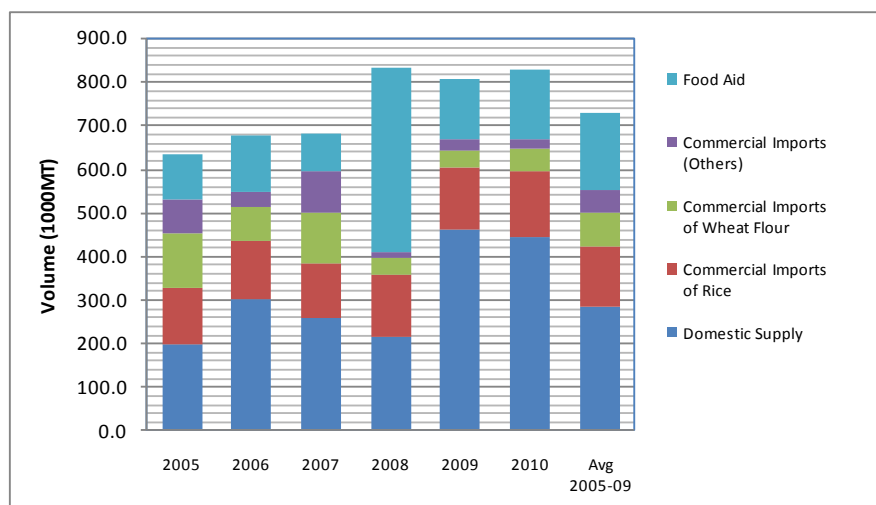


Figure 1. Trend and Composition of Cereals in Somalia

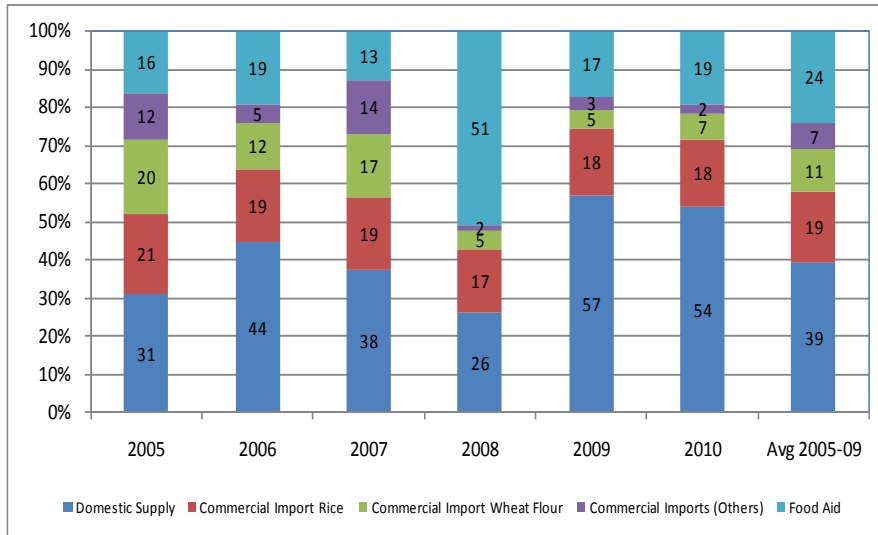


Figure 2. Trend and Composition of Cereals Supply in Somalia (in %) Data Source: FAO/GIEWS Cereal Balance Sheets.

27. The 2011 cereal production resulting from the main harvest (*Gu*) is estimated at 36,600 tons, which is 32% of the 5-year (2006-2010) average (115,100 MT) and 26% of the long-run (1995-2010) average (141,000 MT)<sup>4</sup>. Lower Shabelle and Bay, the two main sorghum and maize producing regions in Southern Somalia with a share of about 75% of the total cereal production in a normal year, faced a serious production failure. In Bay region, the harvest almost collapsed completely with a decline of 90% from last year, and 65% in Lower Shabelle. The production levels in those regions are largely inadequate and below their 5-year averages (-53% and -80%, respectively).
28. The performance of domestic production of maize and sorghum is dependent on rainfall patterns, in recent years (Table 3). Unlike other regions, the *Gu* production in Hiiran and the *Deyr* production of maize and sorghum in Middle Juba are not strongly associated with rainfall due to their dependence on irrigation schemes.

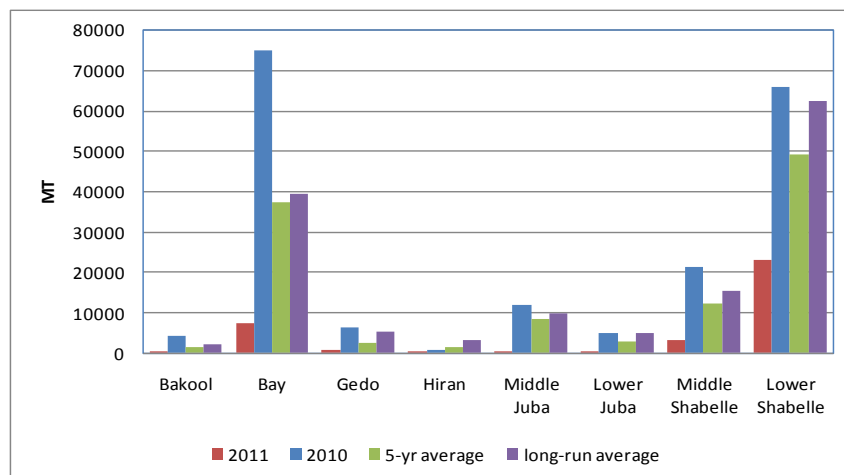


Figure 3. *Gu* Cereal Production Estimates in Southern Somalia in 2011 Data Source: FSNAU

29. In most of southern Somalia regions, local cereal prices are negatively associated with rainfall and production patterns. Good rainfall translates into increased production and availability of maize and sorghum on markets which in turn lead to price decreases. Alternatively, locally produced

<sup>4</sup> FSNAU and FEWSNET (2011): Somalia Dekadal Food Security and Nutrition Monitoring, August 24, Nairobi.

cereal price increases are associated with poor rainfall and production performance, suggesting that availability of locally produced cereals is key in stabilizing cereal prices on the markets. This negative relationship between local cereals production and their prices is illustrated by the recent joint FSNAU and FEWSNET market update<sup>5</sup>. It indicates that local grain prices (maize and red sorghum) declined from August to September 2011, due to off-season harvest in most southern Somalia markets. However, they remain considerably higher than last year.

Region	Coefficients of Correlation between Production, Prices and Rainfall*							
	Gu Production		Deyr Production		Prices (Gu Season)		Prices (Deyr Season)	
	White Maize	Red Sorghum	White Maize	Red Sorghum	White Maize	Red Sorghum	White Maize	Red Sorghum
Bakool	0.27	0.35	0.55	0.63	-0.66	-0.69	-0.25	-0.09
Bay	0.35	0.22	0.59	0.41	-0.71	-0.61	-0.51	-0.40
Gedo	0.23	0.39	-0.27	0.10	-0.53	-0.34	-0.28	-0.23
Hiiran	-0.40	-0.33	0.03	0.34	-0.66	-0.74	-0.29	-0.25
Lower Juba	0.60	0.35	0.27	0.27	0.09	-0.02	-0.48	-0.48
Middle Juba	0.15	-0.08	-0.07	-0.16	-0.22	0.31	-0.02	-0.04
Lower Shabelle	0.45	0.26	-0.36	0.36	-	-0.59	-	-0.60
Middle Shabelle	0.26	0.24	-0.57	0.28	-0.48	-0.48	-0.64	-0.72

Table 3. Correlations Between Maize and Sorghum Prices, Production and NDVI

Data Source: FSNAU (Production and Prices), SPOT-VGT (NDVI)

\* In the table above, NDVI (Normalized Difference Vegetation Index) was correlated with prices (Somali Shilling) and production (MT) figures from 2005 to 2011.

### c. Cereal Imports

30. In response to the poor performance of domestic cereal production, imported cereals increased significantly from last year in May (110% from 35,192MT), June (155% from 22,898 MT), and July (67% from 30,675 MT) (Figure 4). However, this increased supply is unlikely to have met the unprecedented supply gap created by the local cereals production failure. Furthermore, the substantial increase of cereal (rice and wheat flour) imports contains a seasonal dimension: import volumes are generally highest during the *Gu* rains (April-June) and following the end of the monsoon winds between end-September and early October<sup>6</sup>.

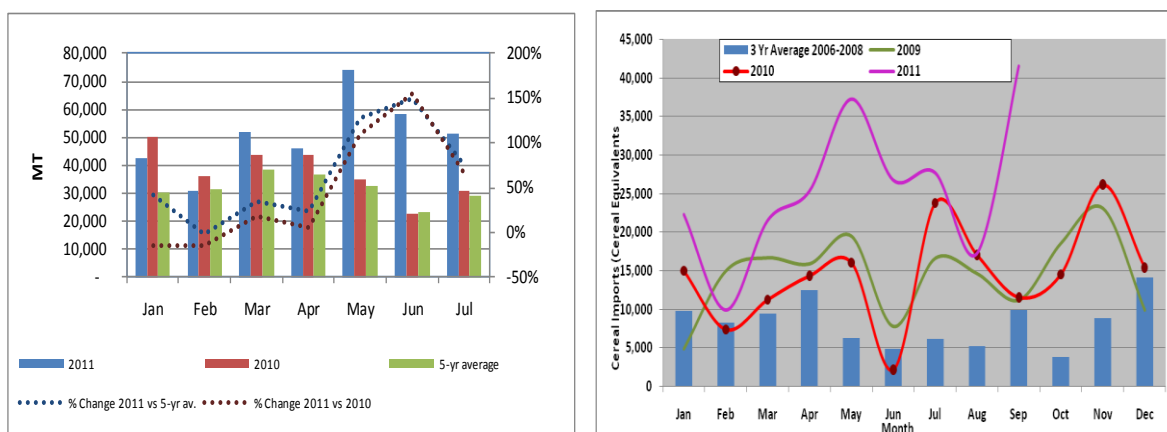


Figure 4. Imported Cereals (Volumes and % Changes)

Data Source: FSNAU

<sup>5</sup> FSNAU and FEWSNET (2011): Market Data Update, September.

<sup>6</sup> USAID and FEWSNET (2011): Executive Brief, Commercial Imports in Somalia, September.

31. The extent to which cross-border flows of cereals contribute to the domestic supply is unclear and requires a strengthening of the existing joint FEWS NET/FAO/WFP Joint Cross-Border Market and Trade Monitoring Initiative. The flows of cereals through cross-border trade indicate existence of potential outflows from Somalia to Ethiopia and Kenya during the first half of 2011 while inflows of cereals are too small to meet the supply gap in southern Somalia. Despite the overall reduction of cross-border trade in the Horn of Africa due to poor harvests in the region, trade restrictions imposed by Ethiopia and Kenya and restricted trade flows within Somalia, informal inflows of maize and sorghum into Somalia reached 4,760 MT between April and June<sup>7</sup>. This is driven largely by traders' reliance on cross-border inflows to replenish their stocks following the failure of both 2010 short rain crop and the 2011 long rains crop. However, the FSNWG and MAS report of July 2011 shows that around 8,000 MT of cereals crossed the border to Ethiopia and Kenya during first half of 2011. Almost 50% of this volume flowed into Kenya, through Doley cross-border market. Meetings held with traders suggest that the outflows are motivated by high internal transaction costs, low purchasing power and higher margins and demand in neighboring countries. Between July and September 2011, a net inflow of about 2,500 MT of maize and maize flour was recorded from Ethiopia<sup>8</sup>. Meanwhile, there was no report of cross-border flows between Kenya and Somalia, probably due to the acute demand of maize in Kenya which resulted from delays in harvest. Overall, the estimates of net in/outflows call for the existing cross-border trade monitoring system to be extended and strengthened.

32. From January to July 2011, about two-fifths of cereals imported from overseas (mainly rice and wheat flour) were brought in through Mogadishu port, the major wholesale entry point for southern Somalia (Figure 5). The main overseas entry-points of imports in Somalia are the ports of Mogadishu (Banaadir region), Bossasso in Puntland (Bari region), and Berbera in Somaliland (Woqooyi Galbeed region).

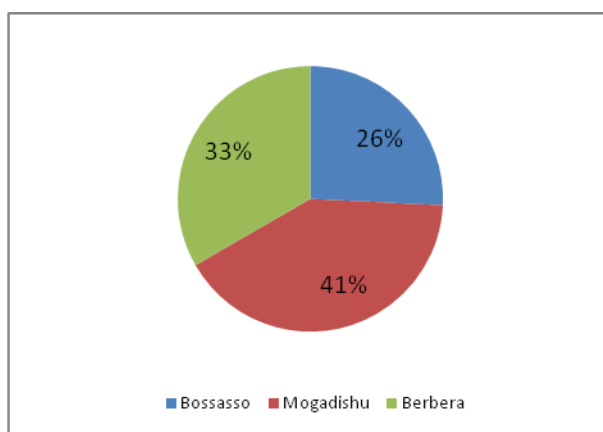


Figure 5. Average Volumes of Cereals Imported (% Contribution by Port in Jan-Jul 2011)  
Data Source: FSNAU

33. While rice imports were above their 5-year levels in May-June 2011 in all three ports, they moved back to their 5-year average levels in July, with the exception of Mogadishu. Wheat flour imports show similar trends, with a significant increase in May-June, especially in Mogadishu. However the significant increase of imports did not result in any substantial decrease in domestic retail prices of imported cereals (Figure 6). Indeed imported rice and wheat flour prices remained high, with a slight upward trend,<sup>9,10</sup> which indicates that increased imports of rice and wheat flour have

<sup>7</sup> FSNWG and MAS (2011): East Africa Cross-Border Trade Bulletin, Issue #2, July, Nairobi.

<sup>8</sup> FSNWG and MAS (2011): East Africa Cross-Border Trade Bulletin, Issue #3, October, Nairobi.

<sup>9</sup> FSNAU and FEWSNET (2011): Market Data Update, September.



little impacts on their retail prices on domestic markets. Alternatively import volumes of rice and wheat flour may have not increased enough to curb prices.

34. Traders' capacity to increase supplies of maize and sorghum is also in question. Reportedly, local grain stocks are almost depleted, regional trade is restricted by export bans (Ethiopia, Kenya and Tanzania) and domestic movements are restricted, further compounding movement of foods. Furthermore, forecasts of the next *Deyr* harvest are unlikely to compensate the supply gap and supplies through cross-borders are minimal<sup>11</sup>.
35. With the end of the monsoon winds in September, the volume of commodity imports for rice and wheat flour are likely to increase in early October. However, volatility in fuel prices and uncertainties on the Thai rice policy are likely to maintain some upward pressure on prices of imported commodities. On September 10, the Thai government reinstated the Paddy Pledging Program under which the government will buy rice at above-market prices and hold large rice stocks. This policy will likely drive international rice prices up in the short run, given the price making role of the Thai rice on the global market. Global rice prices have increased by 14% in Q3-2011 from the last quarter<sup>12</sup>. So far the impact of the Thai Paddy Pledging Program is contained to some extent by the shift in demand to cheaper rice in India. India has indeed lifted its export ban on rice but increased demand for Indian rice coupled with the Thai policy could maintain upward pressure on global rice prices. The impact of the flood in Thailand is likely to be seen also through the next harvest after January.

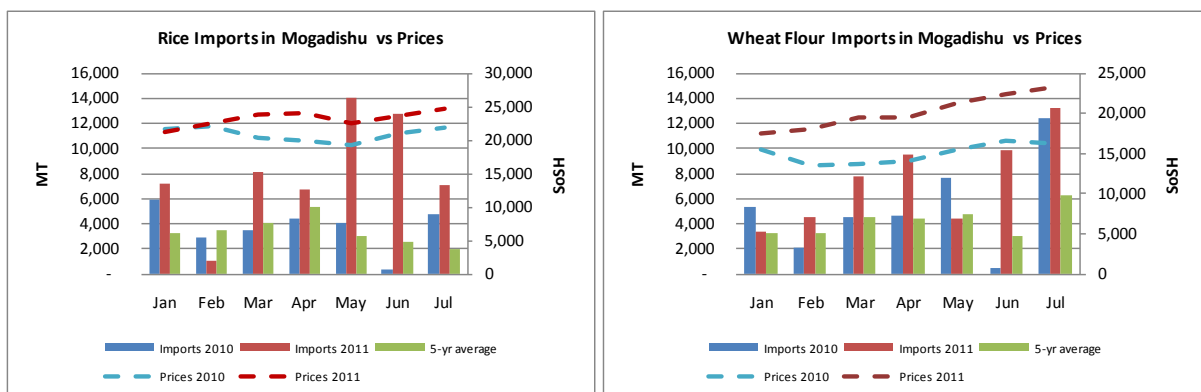


Figure 6. Trends of Cereal Import Volumes and Prices in Mogadishu Port in 2011

Data Source: FSNAU

#### d. Staple Food Markets Integration

36. Due to historical and geographical factors, Somalia increasingly relies upon enhanced market integration of local livelihoods and globalization of the Somali economy. These trends are well indicated by the heavy reliance on food imports (sugar, wheat and wheat flour, rice and cooking oil), livestock dominated exports and diaspora remittances to the national economy. It is estimated that 1.6 billion USD (more than 70% of the GNP) are remitted annually by Somalis in the diaspora via money transfer companies (*Hawalas*). These transfers account for up to 40 percent of the income of urban households in Somalia<sup>13</sup> and provide a conduit for hard currency entering and leaving the country, as well as an instrument for trade and commerce in Somalia and abroad.

<sup>10</sup> WFP (2011): The Market Monitor, September.

<sup>11</sup> USAID, FSNAU and FEWSNET (2011): Special Brief, Market Functioning in southern Somalia, July.

<sup>12</sup> WFP (2011): The Market Monitor, September.

<sup>13</sup> UNDP (2001): *Human Development Report 2001 Somalia*, Nairobi, UNDP.



37. The relationships between local cereal markets suggest that limited flows of locally produced cereals resulting from production failure in the major producing regions of Lower Shabelle (for maize) and Bay (for sorghum), which together account for 70 % of the cereal production in southern Somalia, have led to major price increases in major producing areas of Gedo (Bardera), Bakool (El Barde) and Bay (Baidoa). Notwithstanding other price determinants, the Granger causality analysis mapped below indicate that markets located in the Shabelle Valley (Jowhar, W. Wayne, Buale, Mogadishu, Qorioley, Merca, Kismayo, Jamaame, Jilib) are responsible for maize price transmission to the rest of Southern Somalia (Figures 7 and 8). These source markets are located along the major coastal routes including the three ports of Mogadishu, Kismaayo, and Merca. The area is a major livelihood sorghum and maize zone, where the greatest part of local crops is harvested, and where the drought impact in the last two seasons is considered severe. Xudur, Qansax Dheere and Diinsor in the Sorghum Belt and Afgooye and Merca in the Shabelle Valley tend to transmit sorghum price signals to other areas of Southern Somalia.

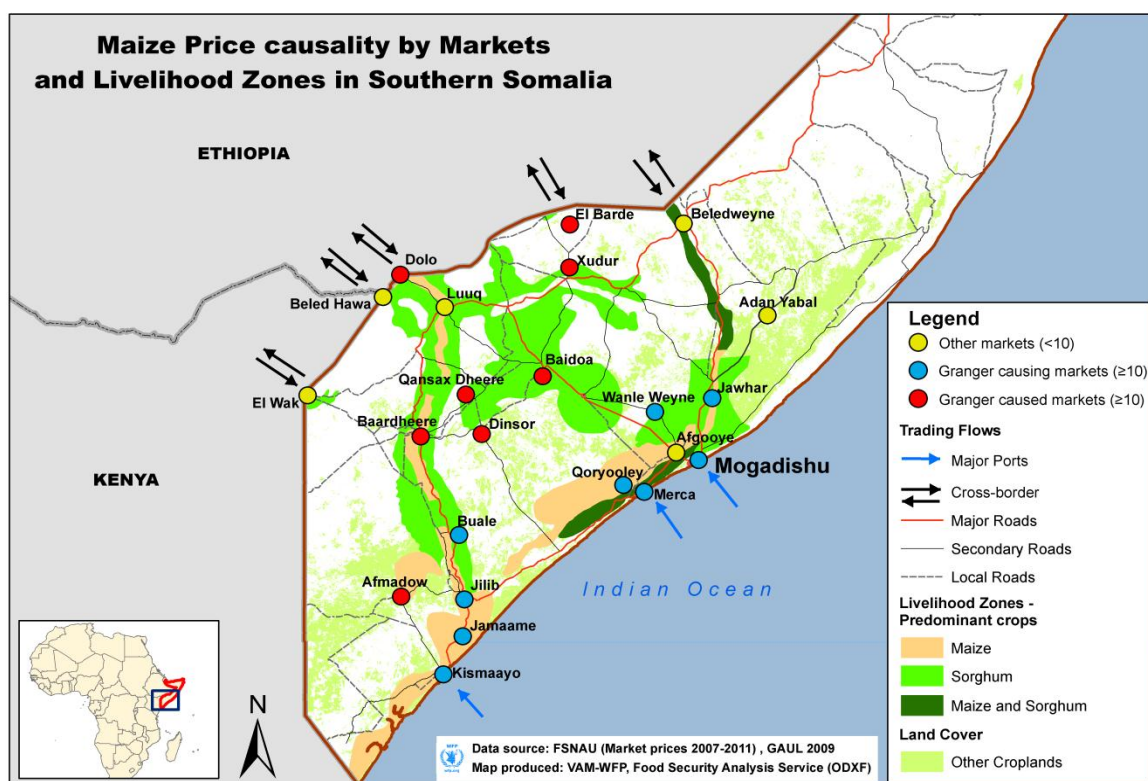


Figure 7. White Maize Price Transmission within Southern Somalia

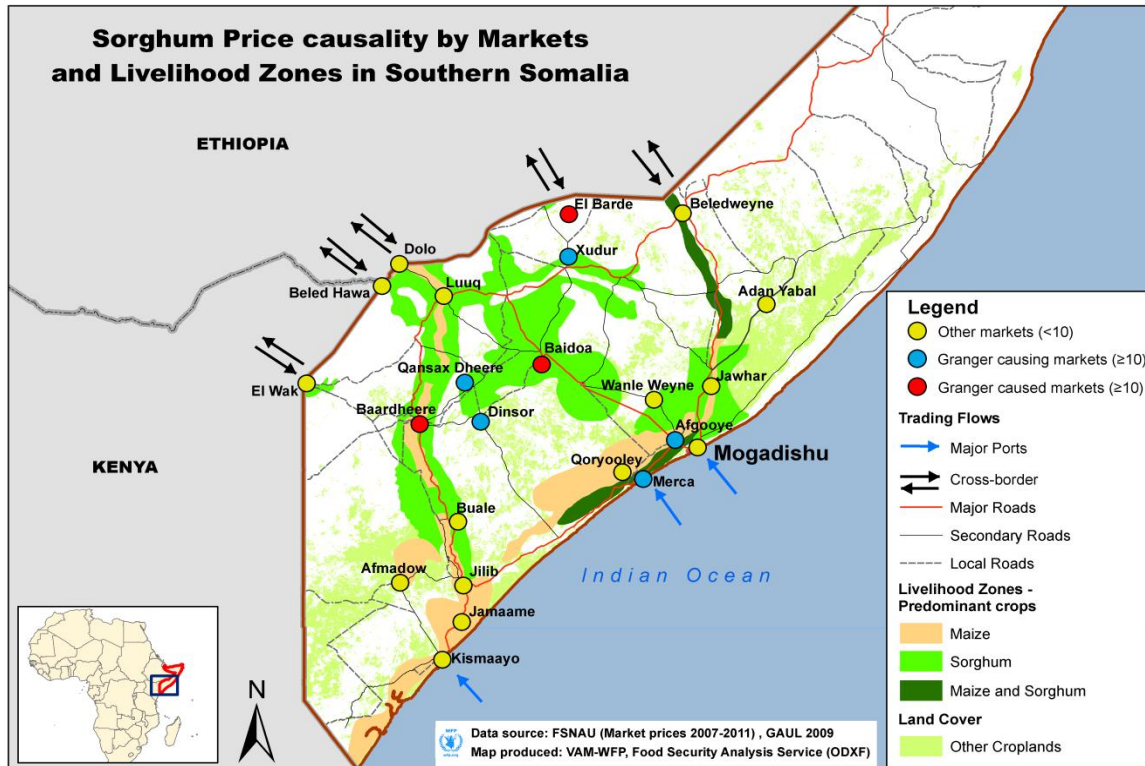


Figure 8. Red Sorghum Price Transmission within Southern Somalia

38. Imported cereal price fluctuations are not expected to affect much the prices of locally produced cereals. Relationships between markets, as indicated by the correlation coefficients between prices, indicate that domestic staple food commodity markets are relatively well integrated for imported cereals (rice and wheat flour) in southern Somalia both within and between trade basins, while the markets of locally produced cereals are weakly integrated in few areas. The degree of transmission (correlation coefficients) of the fluctuations of imported cereal (rice and wheat flour) prices to locally produced cereal (maize and sorghum) prices is low (28-45%). This suggests that the degree of integration between imported cereal markets and locally produced cereal markets is weak. Global factors that affect the domestic retail price of rice and wheat flour have a lesser impact on the retail prices of maize and sorghum than domestic factors such as the production performance and rainfall.

39. Price data from FSNAU (2003-2011) also indicates that locally produced cereal prices in Adan-Yabal are weakly integrated with the rest of the Shabelle Valley trade basin (Lower Shabelle and Middle Shabelle) (Annex 1). In the Sorghum Belt (Bay, Gedo, Bakool, Hiiran), the maize markets in Luuq and Belet Xaawa are weakly integrated with the other regions. Overall, locally produced cereal markets are weakly integrated in the Gedo region. Market integration has further deteriorated in Gedo for all the cereals since 2008, compared to before (2003-2007) (Table 5). This is due to increased movement restrictions between Gedo and the ports, further compounded by increased trade restrictions in some areas of the region. The situation has also slightly deteriorated for sorghum markets between Mogadishu and the rest of Middle Shabelle region. In a context of a supply shock like in southern Somalia and in the absence of limited humanitarian access, food aid would have been an appropriate intervention in areas where maize and sorghum markets are weakly integrated.

Region	Market Pairs	Coefficients of Correlation							
		2003-2007				2008-2011			
		White Maize	Red Sorghum	Rice	Wheat Flour	White Maize	Red Sorghum	Rice	Wheat Flour
Bakool	El Barde/Xudur	0.49	0.70	0.93	0.95	0.87	0.85	0.96	0.91
Bay	Baidoa/Diinsor	0.69	0.58	0.92	0.94	0.92	0.96	0.97	0.95
	Baidoa/Qansax-Dheere	0.67	0.57	0.94	0.92	0.88	0.96	0.95	0.90
	Diinsor/Qansax-Dheere	0.88	0.94	0.94	0.88	0.92	0.98	0.97	0.96
Gedo	Bardera/Belet-Xaawa	0.37	0.46	0.94	0.93	0.25	0.45	0.75	0.53
	Bardera/El Wak	0.92	0.62	0.94	0.80	0.78	0.86	0.72	0.56
	Bardera/Doolow	-	0.49	0.92	0.86	-	0.47	0.89	0.80
	Bardera/Luuq	-	0.09	0.94	0.95	-	0.88	0.93	0.85
	Doolow/Luuq	-	-0.19	0.88	0.91	-	0.30	0.86	0.76
	Doolow/El Wak	-	0.75	0.90	0.64	-	0.53	0.69	0.46
	Doolow/Belet-Xaawa	-	0.98	0.91	0.91	-	0.42	0.77	0.42
	El Wak/Belet-Xaawa	0.56	0.72	0.88	0.67	0.02	0.48	0.65	0.40
	Luuq/El Wak	-	-0.38	0.86	0.69	-	0.79	0.65	0.57
Luuq/Belet-Xaawa	-	-0.18	0.91	0.92	-	0.50	0.82	0.57	
Lower Shabelle	Afgooye/Merca	0.93	0.76	-	0.99	0.93	0.94	-	0.96
	Afgooye/Wanle-Wayne	-	0.86	-	0.99	-	0.98	-	0.98
	Afgooye/Qorioley	0.90	0.70	-	0.99	0.94	0.94	-	0.97
	Qorioley/Merca	0.96	0.62	0.98	0.99	0.98	0.97	0.99	0.98
	Merca/Wanle-Wayne	-	0.81	-	0.99	-	0.96	-	0.97
Qorioley/Wanle-Wayne	-	0.68	-	0.99	-	0.95	-	0.99	
Middle Shabelle	Jowhar/Adan-Yabal	-	0.71	0.97	0.75	-	0.48	0.89	0.76
	Jowhar/Mogadishu	0.91	0.65	0.96	0.98	0.93	0.95	0.85	0.93
	Mogadishu/Adan-Yabal	-	0.65	0.92	0.72	-	0.47	0.81	0.69
Lower Juba	Afmadow/Jamame	0.67	-	0.80	0.65	0.84	-	0.84	0.84

Table 4. Patterns of Cereals Market Price Integration in Southern Somalia

Data Source: FSNAU

### III. Food Access Situation

#### a. Food Price Trends and Volatility

40. The increase in rice and wheat flour imports and recent off-season harvest of maize and sorghum are yet to offset the severe staple food price increases in Somalia.

##### i. Trends from 2003-2007 averages

41. Figure 9 shows a sorghum and maize price crisis in 2011 compared to 2008 when the price crisis affected both local and imported cereals. Compared to the 5-year average (2003-2007), the percentage increase of the July 2011 price of red sorghum (29% of the caloric contribution) in southern and central Somalia was 28% higher than the increase in 2008. This is due to the unusually low supply and low stocks of red sorghum (USAID, FSNAU and FEWSNET, 2011). Meanwhile, the average price of white maize (18% of the caloric contribution) was only 7% below the increase in 2008 (Figure 9). After the 2008 food price crisis, rice and wheat flour prices remain relatively stable at higher levels while maize and sorghum prices declined following the bumper harvests in 2009-2010. With the 2011 production failure, local cereals in particular sorghum prices reached their highest peak since 2003 (Figure 10).

42. Both imported rice (9% of the caloric contribution) and wheat flour (10% of the caloric contribution) price increases remained below their peak levels of 2008 in July 2011. However they were respectively 10% and 38% above July 2010 levels and more than 200% higher than

their long-term averages of 2003-2007 (Figure 9). The decreases (3-10%) recorded in August 2011 in sorghum and maize prices are too insignificant to affect the overall price trends in southern Somalia<sup>14</sup>. Reportedly, red sorghum average prices remain 110% higher than in August 2010 in the Sorghum Belt. Maize prices are also 191% and 166% higher than last year in Shabelle and Juba regions, respectively. It is noteworthy that the *Gu* season in 2010 was considered as a good harvest with consequently lower prices.

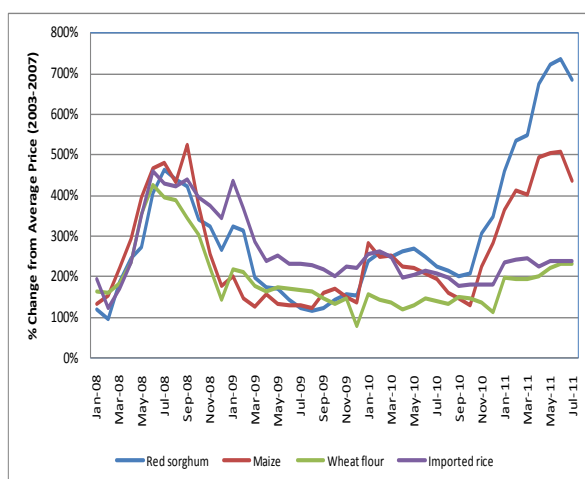


Figure 9. Cereal Price Changes Compared to Long-Term Average

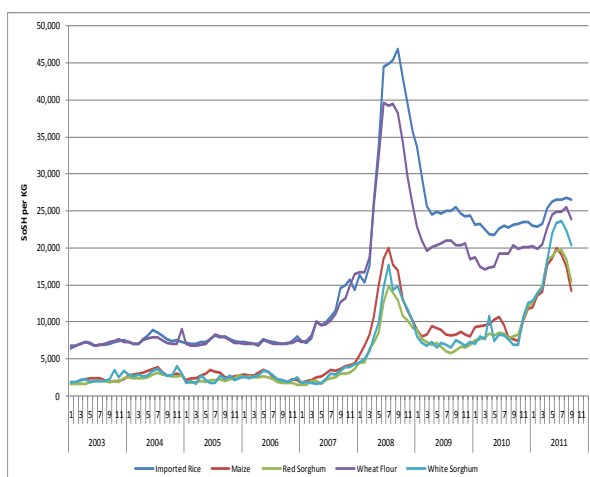


Figure 10. Nominal Cereal Price Trends

Data Source: FSNAU

43. Compared to the previous quarter (April-June), prices of locally produced cereals decreased or remained stable during Q3-2011 (July-September), mostly due to price decreases in September driven by off-season harvest. Significant nominal price decreases are observed for red sorghum in Bakool (-32%) and Gedo (-14%) and white maize in Bakool (-22%), Hiraan (-16%) and Middle Shabelle (-33%) in Q3-2011 compared to Q2-2011<sup>15</sup>. However, seasonally adjusted prices increased for white maize in Lower Juba (+24%), Middle Juba (+20%), and Banaadir (+10%)<sup>16</sup>. Nominal prices of imported rice have slightly increased from Q2-2011, except in Awdal and Gedo. Likewise, wheat flour prices have slightly increased, except in Gedo, Hiraan and Middle Juba.

<sup>14</sup> FSNAU and FEWSNET (2011): Somalia Dekadal Food Security and Nutrition Monitoring, September, Nairobi.

<sup>15</sup> WFP (2011): The Market Monitor, September.

<sup>16</sup> The seasonally adjusted price change from last quarter is calculated as a percentage change from the previous quarter. The adjustment is made using real prices, calculated by dividing each monthly price by its 5-year (2003-2007) average and then quarterly averaged.

Overall, cereal prices remain extremely high in Q3-2011, almost between two to eight times above their 5-year average.

*ii. Trends from 2008 food price crisis*

44. Table 5 shows a local cereal price crisis which is by far more severe than the 2008 food price crisis, with red sorghum prices almost tripling and white maize prices doubling in major markets of southern Somalia.
45. Compared to April-June 2008, the average price of red sorghum more than doubled in Bay (Baidoa, Diinsor, Qansax-Dheere), Bakool (Xudur), Gedo (Bardera, Luuq), Lower Shabelle (Merca, Qorioley, Wane-Wayne) and Mogadishu. Substantial white maize price increases, ranging from 30-100%, were also recorded in the same areas. The lowest white maize and red sorghum price increases are observed in Bakool (El Barde), Hiraan (Belet-Weyne), Gedo (Doolow) and Lower Shabelle (Afgooye). These trends could be due to small cross-border trade inflows in Bakool, food aid flows in Hiraan and small supplies of red sorghum and white maize on markets in Lower Shabelle where farmers have a tendency to sell more their produce than other regions.
46. In July 2011, the magnitude of red sorghum price increases was relatively lower than in April-June but still substantially higher than in July 2008 in most of the regions of southern Somalia. Unlike red sorghum, white maize prices were slightly lower than in July 2008, except in Bay (Qansax-Dheere), Lower Shabelle (Merca, Qorioley), Middle Juba (Buale) and Mogadishu. Compared to April-June 2008, the prices of imported cereals (rice and wheat flour) increased less than those of locally produced cereals in all the regions, except in Gedo (Belet-Xaawa, El Wak).
47. In a context of low stock levels of red sorghum and white maize and in the absence of additional supplies, local grain prices would remain higher than normal in most of the regions of southern Somalia till the next *Deyr* harvest in January-February 2012. Interviews with key informant food importers/transporters, suggested that the large number of humanitarian organizations “buying up” imported food supplies could also contribute to the upward pressure on imported cereal prices.

Region	Market	Price Change in 2011 from	Imported Commodities		Locally Produced Commodities	
			Rice	Wheat Flour	White Maize	Red Sorghum
Bay	Baidoa	Apr-Jun 2008	-34%	-32%	38%	159%
		July 2008	-45%	-34%	-6%	53%
	Diinsor	Apr-Jun 2008	-27%	-28%	100%	206%
		July 2008	-50%	-40%	-2%	39%
	Qansax-dheere	Apr-Jun 2008	-17%	-31%	100%	247%
		July 2008	-40%	-49%	37%	61%
Bakool	Xudur	Apr-Jun 2008	-17%	-22%	28%	114%
		July 2008	-40%	-37%	-27%	12%
	ElBarde	Apr-Jun 2008	-19%	-32%	-	-57%
		July 2008	-41%	-41%	-	0%
Hiraan	Belet-Weyne	Apr-Jun 2008	-26%	-18%	19%	-65%
		July 2008	-39%	-41%	-27%	-100%
Gedo	Bardera	Apr-Jun 2008	-24%	-21%	31%	205%
		July 2008	-41%	-26%	3%	63%
	Doolow	Apr-Jun 2008	-8%	-33%	-1%	-
		July 2008	-30%	-32%	3%	11%
	Belet-Xaawa	Apr-Jun 2008	20%	21%	56%	67%
July 2008		-23%	-27%	-13%	-4%	
El Wak	Apr-Jun 2008	13%	9%	-	-	
	July 2008	-30%	-32%	-	-13%	
Luuq	Apr-Jun 2008	-5%	-13%	-	285%	
	July 2008	-40%	-53%	-	120%	
Lower Shabelle	Merca	Apr-Jun 2008	-35%	-31%	39%	149%
		July 2008	-44%	-31%	52%	73%
	Qorioley	Apr-Jun 2008	-31%	-30%	49%	169%
		July 2008	-44%	-43%	40%	113%
Afgooye	Apr-Jun 2008	-29%	-26%	-25%	17%	
	July 2008	-44%	-43%	-40%	13%	
Wanle-Wayne	Apr-Jun 2008	-29%	-26%	55%	159%	
	July 2008	-44%	-38%	9%	53%	
Middle Shabelle	Adan-Yabal	Apr-Jun 2008	-21%	-17%	-	26%
		July 2008	-40%	-29%	-	0%
Jowhar	Apr-Jun 2008	-25%	-21%	27%	86%	
	July 2008	-35%	-29%	-11%	53%	
Middle Juba	Buaale	Apr-Jun 2008	-25%	-16%	56%	-
		July 2008	-48%	-50%	48%	-
Jilib	Apr-Jun 2008	-26%	-29%	40%	-	
	July 2008	-50%	-38%	4%	-	
Lower Juba	Afmadow	Apr-Jun 2008	-21%	-25%	47%	-
		July 2008	-45%	-18%	1%	-
	Jamame	Apr-Jun 2008	-29%	-32%	16%	-
July 2008		-48%	-38%	-9%	-	
Kismayo	Apr-Jun 2008	-32%	-41%	8%	-	
	July 2008	-47%	-40%	-16%	-	
Banadir	Mogadishu	Apr-Jun 2008	-27%	-29%	28%	132%
		July 2008	-28%	-32%	31%	67%

Table 5. Cereal Price Volatility in Southern Somalia Compared to 2008

#### b. Impacts on Household Purchasing Power

48. In southern Somalia, failed production has resulted in a substantial decline of crop incomes and led to an economic access crisis. The situation is compounded by high cereal prices due to insufficient imports to cover the domestic supply gap, high transaction costs due to insecurity,



reduced incomes from drought-affected livestock sales, limited labour opportunities and increasing burden of accumulated debts. The food security situation has deteriorated for all livelihoods. However agro-pastoral, cattle pastoral and riverine areas of Bakool, Lower Shabelle, Middle Shabelle, Gedo, Bay and IDP population in Afgooye and Mogadishu are hardest hit<sup>17</sup>.

49. In Bakool, the deterioration of the terms of trade (daily labour rate / red sorghum price) started in late 2009, reaching the minimum level of August 2008 when a daily wage was exchanged with 1.65 Kg of red sorghum, i.e. 83% less than the peak recorded in December 2006. The terms of Trade (goat local quality / red sorghum price) also started to decline in late 2010, reaching as low as 22.7 Kg of red sorghum for a goat in June 2011, compared to 25.17 Kg during the food price crisis in July 2008.

50. In Lower Shabelle (Southern Somalia), the purchasing power of daily labourers against red sorghum price has fluctuated throughout 2009 and 2010 with seasonal improvements stimulated by daily wage increases during the *Gu* (August- September) and *Deyr* (December – January) harvests. However, the purchasing power started to deteriorate progressively from October 2010 onwards with a loss of about 70% recorded in July 2011. The loss in purchasing power is sharper in 2011 than in 2008. In July 2011, 3.41 kg of red sorghum was exchanged with a daily wage against 4.24 Kg in July 2008. Similarly the amount of red sorghum gained by selling a goat was much lower in July 2011 than the same month in 2008, with a reduction of almost 50%. Similar patterns were also observed in Middle Shabelle with a decrease of the purchasing power of daily wage rate and the price of goat (local quality) ranging between 60-80% in July 2011. Likewise the decrease of the purchasing power of both daily wage rate and the price of goat ranged between 40-60% in Lower Juba, compared to their 5-year (2003-2007) average levels.

51. In Bay and Gedo regions a protracted decline of households' purchasing power is ongoing since 2007 (Annex 3). The terms of trade (daily wage rate against red sorghum price) remained stable in 2008 and 2009, due to the fact that the income effects of labour wage increases were associated with red sorghum price increases. In 2010 and 2011 sorghum price increased substantially while labour wages decreased slightly. As a result, the purchasing power of labour wage reduced substantially. The same trend was observed in the purchasing power of goat (local quality) against red sorghum price. As of July, the decrease of the purchasing power of both goat and wage labour reached 80% and 40%, respectively, compared to their 5-year (2003-2007) average levels. According to FSNAU and FEWSNET, one goat can only be exchanged for 40 kg of cereals, versus 180kg in August 2010. Similar patterns are also observed in Gedo region where the average daily wage rate could barely buy 4kg of white maize in August 2011, compared to 10 kg in August 2010 (FSNAU and FEWSNET, 2011).

52. In Hiraan, the terms of trade (daily wage rate/red sorghum and goat/red sorghum) have decreased from their peak level of mid-2009 to about 20% below their 5-year (2003-2007) average levels.

### c. Impact on Urban Population

53. High cereal prices, coupled with reduced incomes as a result of declining crop and livestock products and sales, limited labour opportunities and increasing burden of accumulated debts, continue to erode urban households' ability to afford food<sup>18</sup>. Urban food insecurity is a major concern throughout Somalia, with the Afgooye-Mogadishu corridor considered as an area of

<sup>17</sup> FSNAU and FEWSNET (2011): Somalia Dekadal Food Security and Nutrition Monitoring, September, Nairobi.

<sup>18</sup> FSNAU and FEWSNET (2011): Somalia Dekadal Food Security and Nutrition Monitoring, August, Nairobi

particular concern<sup>19</sup>. In this corridor, humanitarian needs are considered to be very severe, with 88 percent of the population estimated to be in crisis. The IDP populations in Afgooye and Mogadishu are classified by the FSNAU as having fallen into the famine category. A total of 450,000 people in Mogadishu and 135,000 in Afgooye are estimated to be in crisis. The area is reported to host around 410,000 IDPs, a figure which is reported to be increasing daily as IDPs continue to flee drought and conflict affected areas.

54. Internally-displaced persons are a significant majority of the population in both Mogadishu and Afgooye. The food security and nutrition situation for IDPs is severe, with roughly 40 percent of IDP children in both areas suffering from acute malnutrition and over 15 percent suffering from severe malnutrition.

Location	Survey	GAM	SAM	CDR	<5 Mortality
Afgooye	July 2011	40.7	17.7	4.33	13.21
Mogadishu	July 2011	39.4	15.3	4.37	15.04

Table 6. Nutrition Situation in Mogadishu and Afgooye

Data Source: FSNAU

55. Interventions to address nutrition, health and sanitation problems faced by famine-affected are required alongside interventions that improve food availability and households' access to food. IDPs depend on food purchases and access to food aid to meet their food needs. Rising food prices and declining labour opportunities has eroded access to food. Discussions with the Country Office highlighted that although food was an important driver of under-nutrition, the health and sanitation situation was also a major concern. WHO reports that there were 4,272 cases of cholera and AWD in Banadi hospital in Mogadishu, during the period to January through August.
56. Since January 2011, an unprecedented number of IDPs have migrated to Mogadishu for drought-related reasons. The largest inflow of IDPs occurred in January 2011 (Table 7). The vast majority of IDPs have come to Mogadishu as a result of what UNCHR and the IASC Population Movement Tracking data describes as drought-related displacement.

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Total
Arrivals	24,200	6,500	800	1,100	1,700	5,700	27,700	6,200	73,900

Table 7. IDP Arrivals to Mogadishu

57. Problems associated with health and sanitation conditions in Mogadishu are considered to be a major driver of high rates of malnutrition, specifically measles-related Kwashiorkor, child-feeding practices and lack of safe water supplies. In Mogadishu, lack of access to good quality food and fresh food compound these problems, by lowering immunity and resistance to disease.

#### IV. Conclusion

58. The purpose of this analysis was to provide insights into markets and supply conditions in responding to food demand of famine-affected people in southern Somalia. The analysis showed that several factors are constraining the functioning of local cereal markets: domestic production failure, inadequate formal import network of maize and sorghum, insecurity, regional trade restrictions, internal movement restrictions, reduced market integration, high price volatility, etc. In such a context where the situation is compounded by a drought/famine, general food distribution would be an appropriate response, as part of a larger multi sectoral response to meet nutrition, health, WASH and livelihoods needs.

<sup>19</sup>OCHA (2011): Mogadishu and Afgooye Corridor Fact Sheet, August.



59. Supply of imported cereals (rice and wheat flour) has limited impact on cereal prices on domestic markets. The extent to which import volumes of rice and wheat flour have increased enough to curb local retail prices is uncertain. Retail prices of imported cereals are more dependent on global trends than domestic factors. With regards to cross-border trade, the extent to which actual supplies remain within Somalia remain also uncertain, suggesting to strengthen the cross-border trade monitoring system.
60. An estimated 10,000 to 15,000 tons of maize and sorghum per month is required to meet the food needs of famine-affected households in Somalia. Given the context of limited access to general food distribution, interventions that will increase maize and sorghum supplies on markets while supporting the purchasing power of the affected households, for instance through cash and voucher interventions, are necessary. In the absence of sufficient supply of local cereals (maize and sorghum) on markets, food prices would remain high and the scaling up of cash or value-based vouchers could further fuel food prices.
61. From a nutrition perspective, a voucher programme would offer promise to improve beneficiaries' access to food commodities of improved nutrition quality in areas where such commodities are available on local markets. Such an intervention can promote the purchase and consumption of foods that are not available in standard food aid baskets.

## Annex 1. Market Integration Tables

Coefficients of Correlation of Sorghum Prices in the Shabelle Valey Trade Basin (Lower and Middle Shabelle)

	AFGOI	MERCA	QORIOLEY	WANLE_WAY	ADAN_YABAL	JOWHAR	MOGADISHU
AFGOI	1.000000						
MERCA	0.879223	1.000000					
QORIOLEY	0.874270	0.974374	1.000000				
WANLE_WAY	0.880608	0.969926	0.964230	1.000000			
ADAN_YABAL	<b>0.615680</b>	<b>0.576964</b>	<b>0.581409</b>	<b>0.638108</b>	1.000000		
JOWHAR	0.909901	0.956885	0.954483	0.966011	<b>0.655336</b>	1.000000	
MOGADISHU	0.862664	0.958211	0.958628	0.981057	<b>0.656677</b>	0.962972	1.000000

Coefficients of Correlation of Maize Prices in the Sorghum Belt Trade Basin (Gedo, Bakool, Hiiran)

	ELBARDE	XUDUR	BARDERA	BELET_XAAWA	CEEL_WAAQ	DOOLOW	LUUQ	BELET_WEYNE
ELBARDE	1.000000							
XUDUR	0.980905	1.000000						
BARDERA	0.939726	0.941751	1.000000					
BELET_XAAWA	0.701844	<b>0.648177</b>	<b>0.661839</b>	1.000000				
CEEL_WAAQ	0.892963	0.855196	0.821404	<b>0.674291</b>	1.000000			
DOOLOW	0.838257	0.815116	0.776677	0.860798	0.731299	1.000000		
LUUQ	<b>0.639264</b>	<b>0.605407</b>	<b>0.564585</b>	<b>0.614819</b>	0.821193	<b>0.508588</b>	1.000000	
BELET_WEYNE	0.952799	0.946328	0.975426	<b>0.646423</b>	0.854454	0.710171	<b>0.623005</b>	1.000000

Coefficients of Correlation of Sorghum Prices in the Sorghum Belt Trade Basin (Gedo, Bakool, Hiiran)

	ELBARDE	XUDUR	BARDERA	BELET_XAAWA	CEEL_WAAQ	DOOLOW	LUUQ	BELET_WEYNE
ELBARDE	1.000000							
XUDUR	0.932742	1.000000						
BARDERA	0.873059	0.903962	1.000000					
BELET_XAAWA	0.745554	0.706307	0.757394	1.000000				
CEEL_WAAQ	0.880958	0.877825	0.904660	0.848677	1.000000			
DOOLOW	0.877409	0.840286	0.754956	0.817694	0.848680	1.000000		
LUUQ	0.780737	0.833824	0.925569	0.805214	0.892745	0.702443	1.000000	
BELET_WEYNE	0.861527	0.884648	0.714576	<b>0.534467</b>	0.727321	0.795451	<b>0.609836</b>	1.000000

## Annex 2. List of Stakeholders

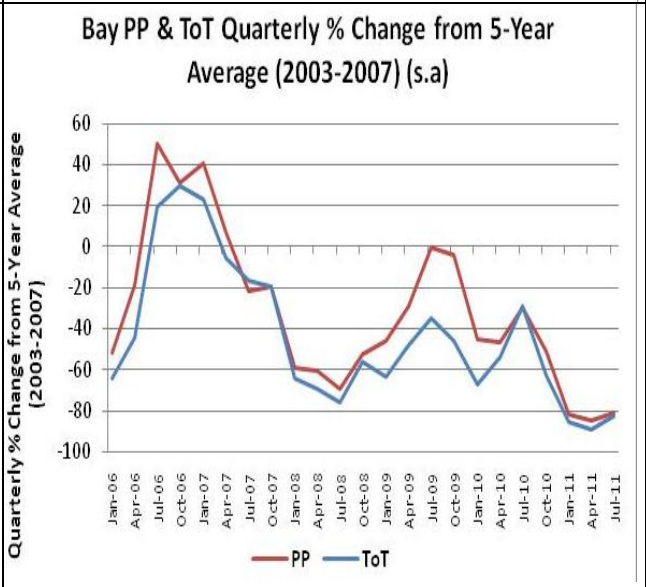
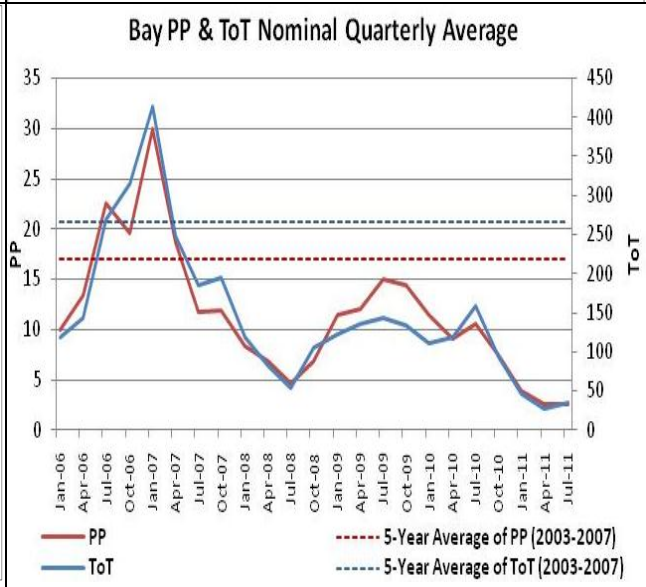
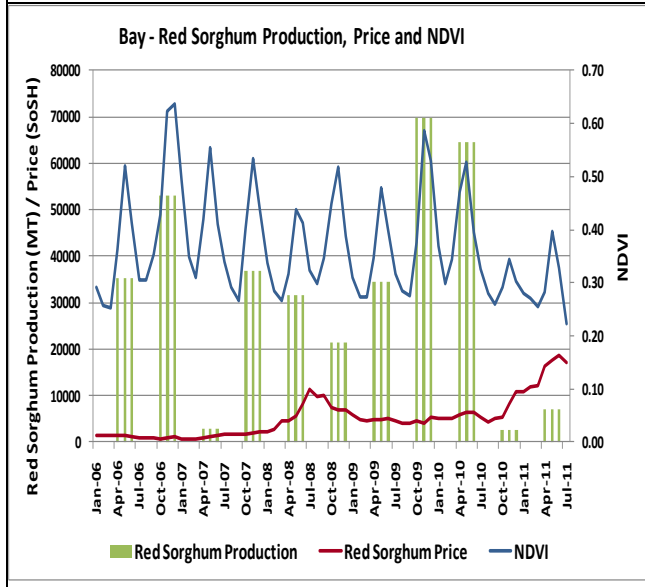
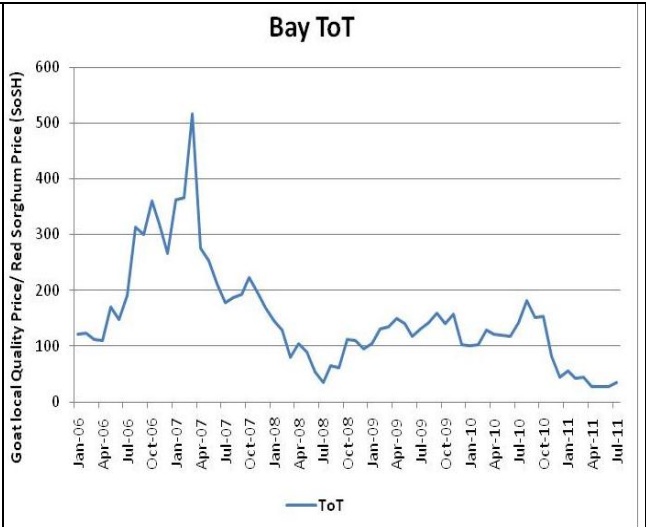
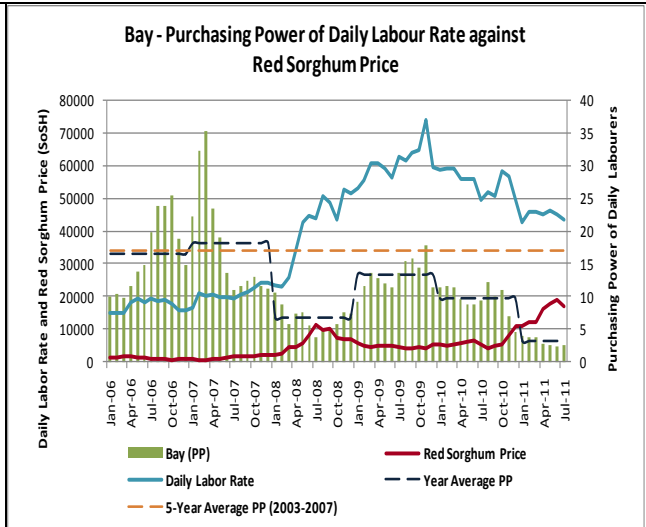
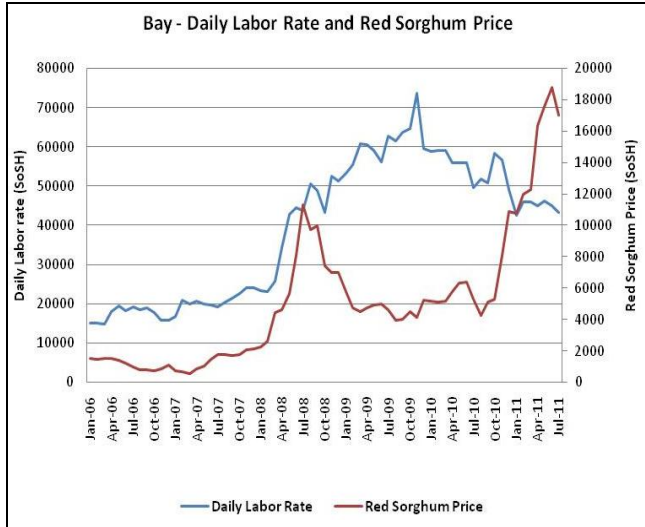
### Internal Discussions

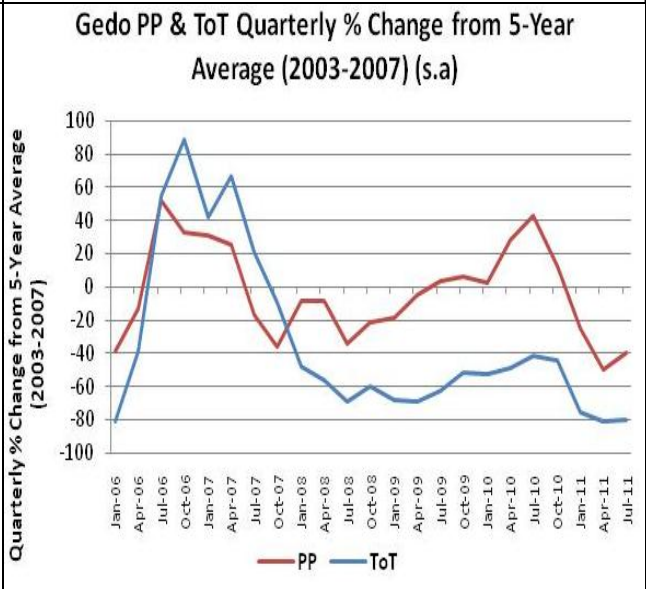
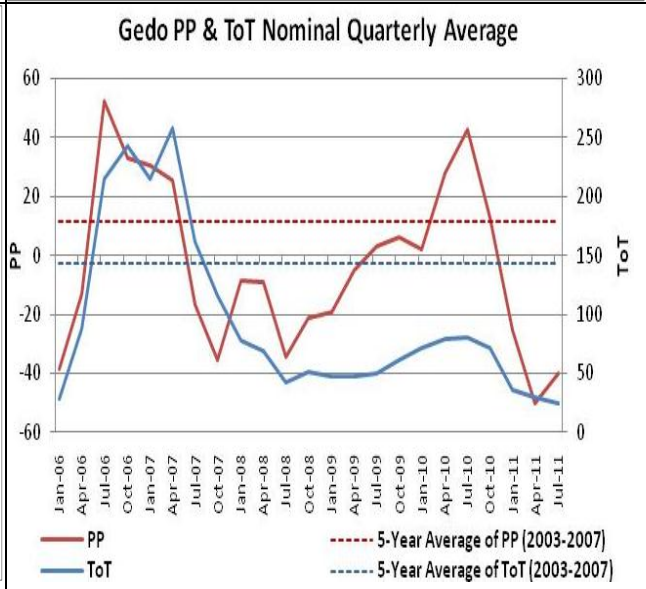
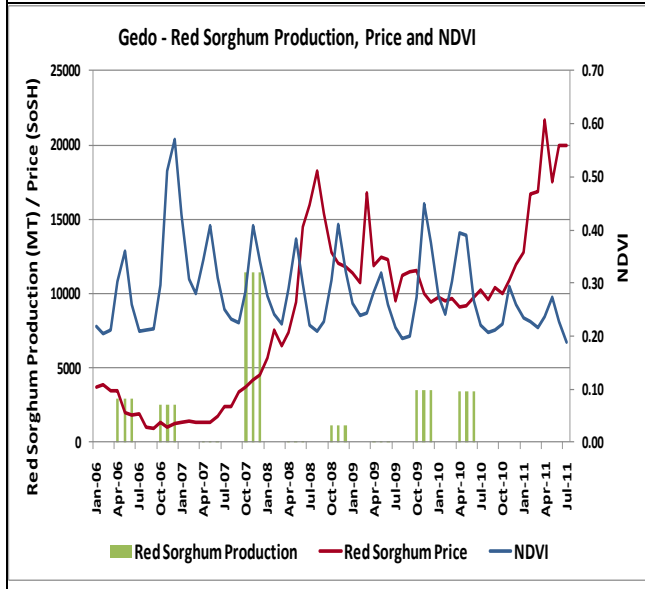
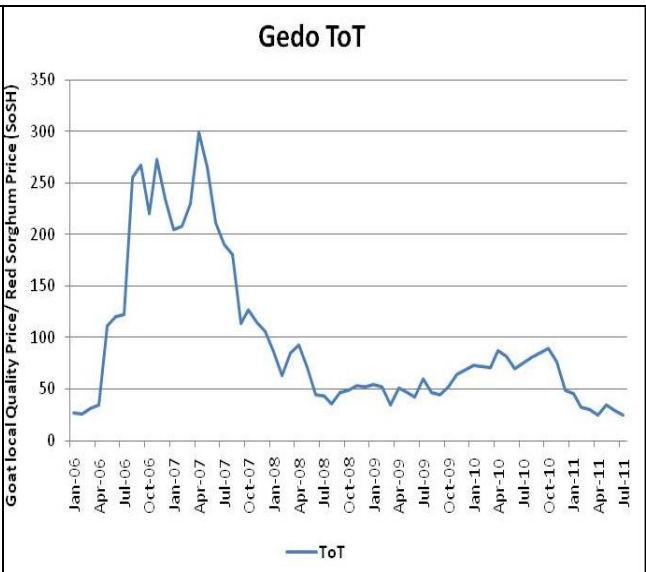
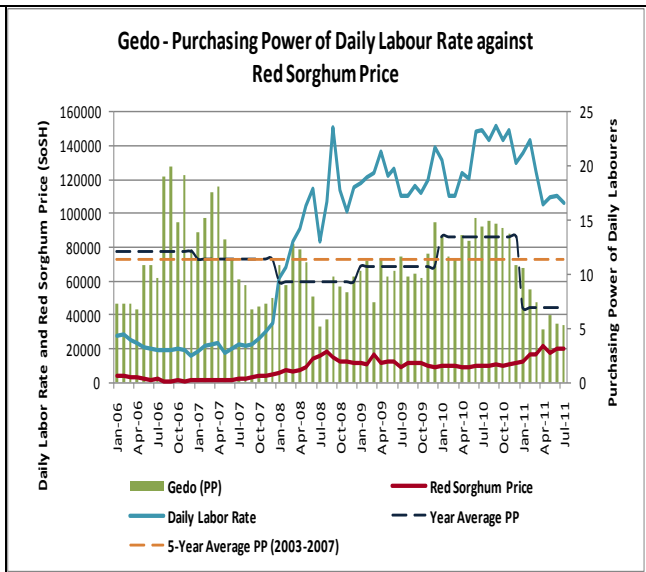
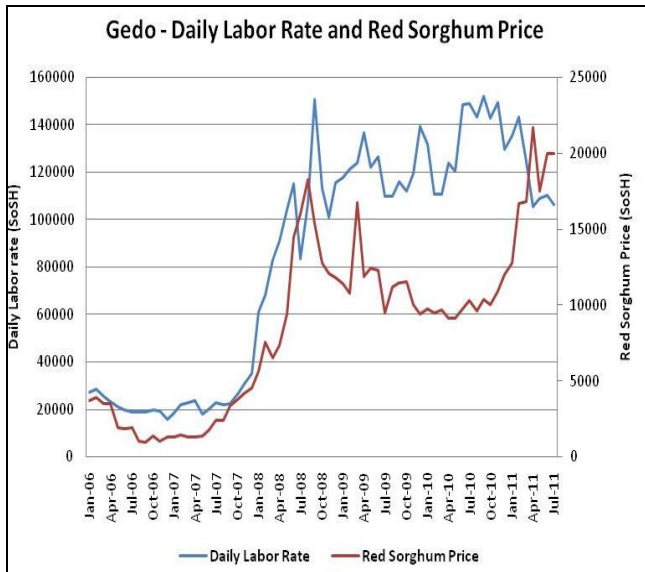
Cooperating Partner  
Logistics  
Mogadishu Area Office  
Monitoring and Evaluation  
Nutrition  
Programme  
Regional Cash and Voucher Advisor  
Security

### External Discussions

Banadir Gate E.A (Transport and Trade)  
Cash Working Group  
Concern  
Danish Refugee Council  
ECHO  
FAO  
FEWSNET  
Food Aid Cluster  
FSNAU  
Global Link Trading & Logistics (Transport and Trade)  
HISCO (Trade)  
IIDA  
Regional Trading Company  
Scorpio Telecom (Transport and Trade)  
UNICEF  
USAID

### Annex 3. Trends of Purchasing Power in Selected Areas of Southern Somalia







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