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Information and Decision Support Center
(IDSC)



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Programme

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Publication Objectives

The objective of this publication is to monitor trends in the production, consumption and prices of key food commodities, and thus their impact on the average food basket and on food security for the most vulnerable households in both urban and rural areas across Egypt. This is in order to identifying emerging threats to food security, whether triggered locally or globally. Aimed at policy makers and development partners, this publication seeks to provide updates and analysis of Egypt's food security situation to assist its audience in policy decision-making.

Initially released monthly, this publication will now be produced quarterly to better highlight longer-term changes in the food security situation of the country to provide more comprehensive information. The intention is to start to provide more analysis of the situation in each subsequent edition.

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Highlights

- ★ In June 2012 about **74% of the surveyed vulnerable households reported their income as insufficient to cover monthly needs**, down slightly from 74.8% in March 2012. Some 3.6% of households reported a decrease in income compared to the month preceding the survey, against 95.5% reporting no change. (Page 8-9)
- ★ While the **price of the food basket¹ declined slightly between April and June 2012**, it grew annually by 5% from L.E. 455 in June 2011 to L.E. 476 in 2012. (Page 4)
- ★ To cover their needs, **43% of households reported having additional sources of income to their current job**. Of these, pensions and Government assistance remained the most important accounting for 31% each of other sources of income, while family assistance accounted for 19% and community assistance for 9%. (Page 8)
- ★ The **main coping strategies adopted by households included borrowing money** (by 32% of strategies), consuming cheaper food items (19.6%), buying on credit (16%), reducing food intake (15.5%) and getting an additional job (7%). (Page 9)
- ★ Vulnerable households rarely purchase meat, poultry and fish. The main commodities consumed are legumes, subsidized Baladi bread, onions, tomatoes, potatoes, garlic, salt, sugar and tea. (Page 11)
- ★ Some **19.5% of vulnerable households are not ration card holders**. (Page 10)
- ★ **Inflation rates slowed slightly in the first half of 2012** increasing 6.3% in the year to August 2012, down from 8.4% in the year to April 2012. **Urban inflation remained steady at 6.4% in the year to August**, easing from 8.8% in the year to April, but growing 1.1% month-on-month with rising food prices. (Page 4)
- ★ The **monthly increase in inflation between July and August was driven by a 2.5% acceleration in food prices** with annual food prices growing 8% between August 2011 to 2012. (Page 4)
- ★ **Total food subsidies have reached L.E. 26.6 billion** (USD 5.2 billion), including for ration card delivery and wheat for the balady bread. Bread subsidies alone account for 60% of this².
- ★ The **Balance of Payments deficit widened to USD 11.3 billion in the fiscal year 2011/12** from USD 9.8 billion the previous year. This was due to a decline in Egyptian exports, a rise in imports and a worsening exchange rate against the US Dollar (USD). (Page 6)

Special report: Subsidized Baladi Bread

★ A recent study by WFP and the Ministry of Supply and Internal Trade entitled *Optimizing the Baladi Bread Supply Chain*³ recommended:

- ⊙ **Improving milling and baking processes** which would give the highest end-to-end returns in terms of cost savings and quality improvement;
- ⊙ **Creating a centralized management system** to coordinate and supervise all aspects of the supply chain;
- ⊙ **Procuring better quality flour.**



For full details of findings and recommendations see pages 12-13.

¹ See Annex (p. 14) for full list of items in food basket.

² Index Mundi, www.indexmundi.com/

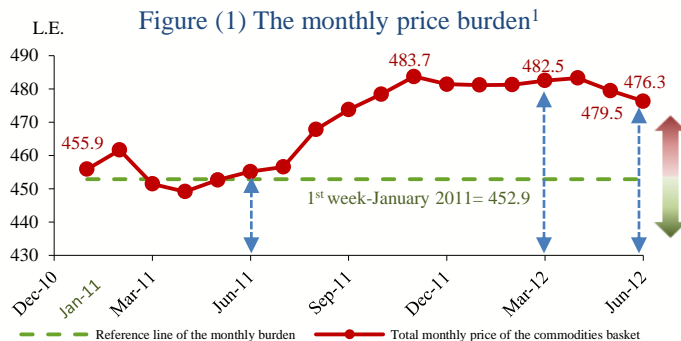
³ World Food Programme and the Egyptian Ministry of Supply and Internal Trade, *Optimizing the Baladi Bread Supply Chain*, July 2012.



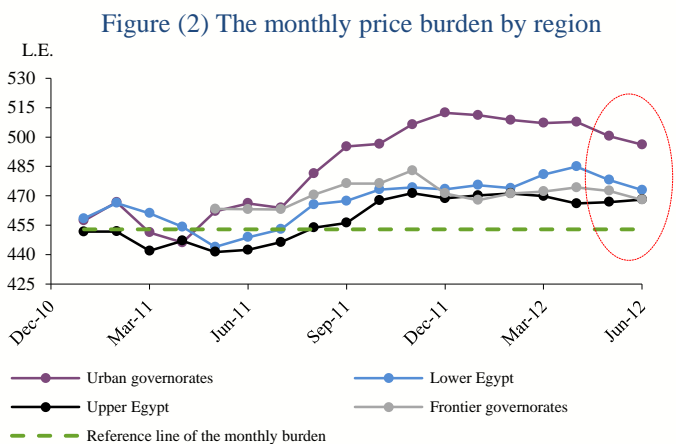
1. Trends in and Impact of Food Prices Changes

1.1 Food Basket Price Changes

- ★ The **monthly price burden** (Fig. 1), which indicates price changes in the food basket¹, saw a **slight decrease of 1.3%** in Quarter 2 (Q2) of 2012. This bucked the **annual trend of a 5% increase in prices** from 455 Egyptian Pounds (L.E.) in June 2011 to L.E. 476 in 2012.
- ★ **Between 1st week of January 2011 and June 2012 prices increased by 5.2%**, resulting in a nominal price increase of L.E. 23.4 per food basket.
- ★ The slight price decreases noted in Q2 were evident across all regions save Upper Egypt where prices increased slightly. **Decreases were most notable in Lower Egypt** (Fig. 2).
- ★ With **wheat the key staple in Egypt**, domestic production and global prices are important indicators. Indications of the 2012 winter crop harvest are of **above average production**, reaching about 8.7 million tones. Egypt, the world's largest wheat importer, imported 11.5 million tones in the 2011/12 (June / July) cycle; above the 10 million tones average of the last two years. Increased domestic production should see imports decrease in 2012/13 to 9.5 million tones. Wheat imports have averaged 45% of total requirements in the last 5 years².



¹ Reference line of the monthly burden has been updated upon the completeness of prices data in different governorates.
Source: Field Monitoring Network, Cabinet-Information and Decision Support Center.

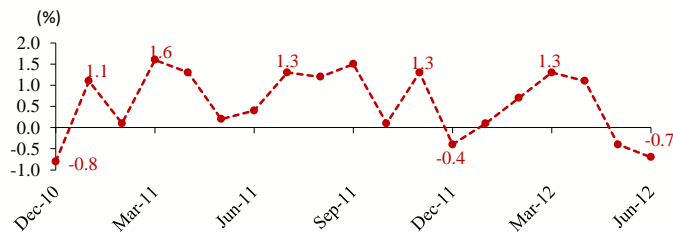


Source: Field Monitoring Network, Cabinet's Information and Decision Support Center.

1.2 Inflation Rates

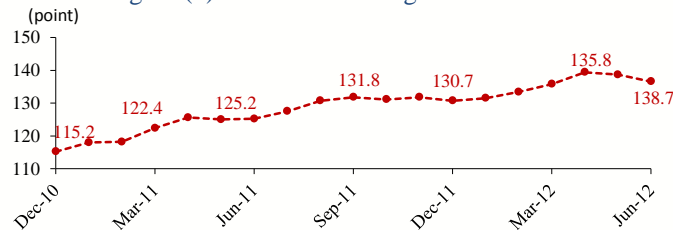
- ★ **Inflation rates slowed slightly in the first half of 2012** increasing 6.3% in the year to August 2012, down from 8.4% in the year to April 2012. **Urban inflation remained steady at 6.4% in the year to August 2012, easing from 8.8% in the year to April 2012**, but growing 1.1% month-on-month with rising food prices.
- ★ The **monthly increase in inflation between July and August was driven by a 2.5% acceleration in food prices**. Though higher than the previous month largely due to Ramadan, **monthly inflation was below the recorded average for the past six years (2.9%)**. Annual food prices grew 8% between August 2011 and August 2012³.

Figure (3) Monthly inflation rate for consumer prices¹



¹Reference month (January 2010=100%).
Source: Central Agency for Public Mobilization and Statistics, CAPMAS.

Figure (4) Food and Beverages Price Index¹



¹Reference month (January 2010=100 points).
Source: Central Agency for Public Mobilization and Statistics, CAPMAS.

¹ The food basket includes 27 commodities presented in the Annex (page 14).

² FAO, <http://www.fao.org/giews/countrybrief/country.jsp?code=EGYt>.

³ Ministry of Finance



1.3 Regional Variations in Commodity Prices

- As noted in Table 1 below, **the commodity with the most significant month-on-month price decrease across all regions between May and June 2012 was tomatoes**. Given the seasonal availability of other vegetables, such as eggplants and potatoes, these also saw a slight price decrease, as did local beans.
- Commodities recording a **price increase** in most regions in June 2012 included **beef and flour** (Table 1). The **highest price increases in beef were noted in Urban governorates (3.6%)** and **for flour in Frontier governorates (6.8%)**.
- Governorates in Upper Egypt saw the highest prices increases**, the most notable being in yellow lentils (5.5%) and beef (2.8%).

Table (1) Average actual and rate changes in food prices between May and June 2012

Goods	L.E. Kg (%)			
	Urban	Lower	Upper	Frontier
Beef	63.9 (3.6) ↑	60.2 (1.8) ↑	52.5 (2.8) ↑	59.2 (-2.4) ↓
Poultry ¹	17.8 (0.5) ↑	17.0 (-2.7) ↓	18.9 (0.4) ↑	18.7 (-6.1) ↓
Tilapia fish	13.4 (-16.9) ↓	13.8 (-12.8) ↓	17.5 (1.1) ↑	16.4 (11.1) ↑
Eggplant	2.8 (-23.3) ↓	2.3 (-23.6) ↓	2.2 (-17.2) ↓	3.2 (-9.5) ↓
Potatoes	1.7 (-0.9) ↓	1.6 (-0.5) ↓	1.7 (-6.0) ↓	1.9 (-3.5) ↓
Onions	2.0 (-4.0) ↓	1.5 (0.8) ↑	1.8 (-3.4) ↓	2.0 (7.7) ↑
Tomatoes	1.7 (-51.6) ↓	7.8 (-50.8) ↓	2.3 (-38.7) ↓	2.3 (-37.6) ↓
Local beans ²	8.3 (-2.5) ↓	7.1 (-5.6) ↓	7.8 (-3.2) ↓	7.9 (-1.5) ↓
Yellow lentils ³	9.8 (0.6) ↑	8.8 (-0.6) ↓	8.3 (5.5) ↑	8.3 (-3.0) ↓
Flour³	4.4 (-2.6) ↓	4.7 (4.0) ↑	3.8 (1.1) ↑	4.1 (6.8) ↑
Rice ⁴	4.7 (-6.7) ↓	4.4 (-1.4) ↓	4.6 (1.3) ↑	4.5 (-4.6) ↓
Macaroni ⁵	5.6 (3.8) ↑	4.6 (-0.2) ↓	4.0 (-12.5) ↓	4.2 (-10.7) ↓
Sugar ⁶	5.8 (-4.1) ↓	5.8 (-1.4) ↓	5.6 (1.0) ↑	5.6 (0.8) ↑
Corn oil ⁷	14.5 (-0.4) ↓	13.5 (-1.7) ↓	13.9 (-0.7) ↓	13.5 (1.3) ↑

¹ Poultry prices are defined as average local, and white live and frozen poultry.

² Unpacked bean ³ Packed ⁴ Include packed and bulk

⁵ Ordinary Packed ⁶ Packed by private sector ⁷ L.E./ liter

Source: Field Monitoring Network, Cabinet-Information and Decision Support Center.

- Each month a comparison of food commodity prices is undertaken between urban and rural areas with a number of Governorates. For June 2012 an assessment of prices in one urban and one rural market in each of four Governorates (Ismailia, Menofya, Assuit, Gharbia) was undertaken, showing sizeable differences in some commodities, largely relating to retail practices:
 - The price of a kilo of local beans was higher in urban than rural areas in Menofya and Assuit by L.E. 4.5 and 3.2, respectively.
 - The price of a kilo of black lentils was higher in urban than rural Ismailia by L.E. 5.1, but was conversely higher in rural than urban Gharbia by L.E. 3.7 per kg.
 - The price of a kilo of rice was higher in rural than urban Assuit and Gharbia by L.E. 4 and 3, respectively.
 - The price of a kilo garlic was higher in urban than rural Menofya by L.E. 3.
 - The price of a box of eggs was higher in most urban than rural areas by about L.E. 3.7.
 - The price of a liter of corn oil was higher in rural than urban Menofya and Assuit by L.E. 4.1 and 1.6, respectively. Similarly, the price per liter of sunflower oil was higher in rural than urban Menofya and Ismailia by L.E. 4.2 and 3.2, respectively.
 - Poultry prices were higher in urban than rural Menofya, Assuit and Gharbia by L.E. 2.1, 3.7 and 2.6, respectively.
 - The price per kilo of catfish was higher in rural than urban Ismailia and Gharbia by L.E. 4 and 5.3, respectively, but higher in urban than rural Assuit by about L.E. 3.
 - The price per kilo of tilapia was higher in rural than urban Ismailia and Gharbia by L.E. 5.3 and 3 respectively, but higher in urban than rural Menofya and Assuit by L.E. 2.7 and 5 respectively.
 - The price per kilo of lamb was higher in urban than rural Assuit by L.E. 11.

1.4 Food Commodities' Price Trends

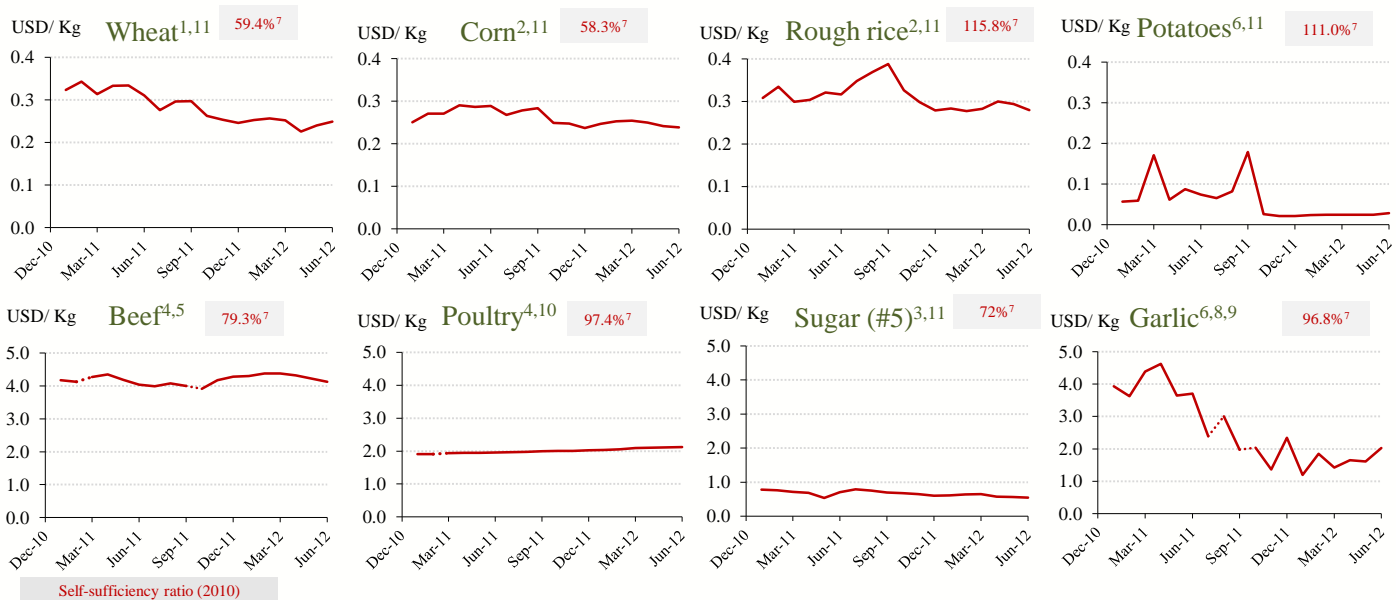
1.4.1 Global prices of key food commodities

Given the high levels of imports, particularly of wheat, **the Egyptian market is affected by global price fluctuations**. In Q2 of 2012, wheat prices saw a slight increase due to concerns over global production, particularly in the Russian Federation; **these concerns on wheat have eased for Q3 of 2012**. While the price of wheat remains below historical peaks, it is at levels comparable to spikes in

the second half of 2011 and thus needs to be monitored¹.

- Commodities such as beef and corn saw a slight decrease in global prices in Q2 of 2012. These were not reflected in beef prices in Egypt which saw a slight increase.
- While global poultry prices continued their upwards trend, this did not affect local prices given domestic self-sufficiency.
- Relative stability has been noted in the price of potatoes and sugar since November 2011.

Figure (5) Global price developments of selected food commodities



¹ Stock Exchange of Kansas City Council of Commerce.

² Stock Exchange of Chicago Council of Commerce.

³ New York Stock Exchange.

⁴ International Monetary Fund, <http://www.imf.org>.

⁵ Values of the 3rd week of January, the 3rd and 4th weeks of February, March and the 1st and 3rd weeks of October had been estimated using moving average because they are unavailable in the source.

⁶ U.S.A Department of Agriculture, <http://www.ams.usda.gov>.

⁷ Ministry of Agriculture and Land Reclamation.

⁸ Values of September and November have been estimated using moving average because they are unavailable in the source

⁹ Prices of November and December refer to the 1st week of November and the 2nd week of December.

¹⁰ Values of the 3rd and 4th weeks of February as well as values of March have been estimated because they are unavailable in the source.

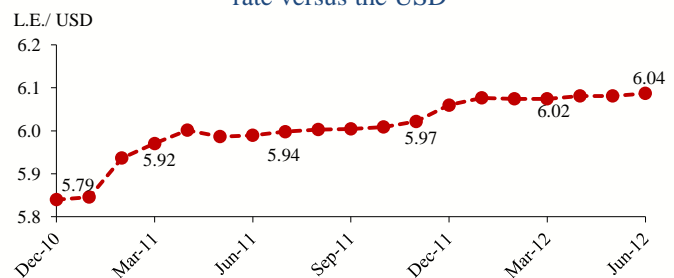
¹¹ Values of the 1st week of October have been estimated because they are unavailable in the source.

1.4.2 Egyptian Pound-US Dollar Exchange Rate

In the last quarter, **the Egyptian pound (L.E.) continued to weaken slightly against the USD** from L.E. 6.02 to L.E. 6.04 between March and June 2012 (Fig. 6).

The lower value of the Egyptian pound has added to the price burden on Egyptian consumers and the worsening Balance of Payments (BoP). The BoP deficit widened to USD 11.3 billion in the financial year 2011/12 from USD 9.8 billion the previous year².

Figure (6) Development of the Egyptian Pound's exchange rate versus the USD



The Central Bank of Egypt

¹ World Bank, *Food Price Watch*, August 2012.

² Ministry of Finance



2. Vulnerable Households' Food Security

2.1 Characteristics of Vulnerable Households

- ★ The **number of households sampled** in this survey was **1618** (7006 household members) equally distributed over 10 governorates.
- ★ **Female headed households constituted 21.4% of total household in the sample.**
- ★ About two thirds of the sample (65.4%) are aged 30 years or under.
- ★ The rate of enrollment in education among those sampled (6+ years old) amounted to 73.7%.
- ★ Enrollment rates increased amongst those age 30 years or under, and amounted to between 83.6%-94.0%. These rates decreased in the 31-70 age group which do not exceed 69.4%.
- ★ Around 27.9% of the total sample (aged 6+ years) who had enrolled in school, had dropped out of basic education (before preparatory level). Drop-out rates increased with age amongst the groups sampled, as is to be expected. In this regard, drop-out rates came to 1.4% among the 6-10 age group compared with 56.0% in the 41-50 age group and 75.3% in the 61-70 age group.
- ★ **Around 31.5% of household heads surveyed were unemployed.**
- ★ Around 12.3% of male heads of households surveyed worked as farmers (not holding property), and about 11.3% worked as carriers, janitors or office boys.
- ★ Around 8.4% of female heads of households worked as sellers.

Table (2) Break down of the sample, enrollment and drop out rates by age groups (%)

Age Group	Age Distribution	Enrollment Rate ¹	Drop out Rate ²
10-	25.8	83.6	1.4
(11-20)	21.8	94.0	18.6
(21-30)	17.8	84.5	27.0
(31-40)	12.7	69.4	41.0
(41-50)	9.6	53.9	56.0
(51-60)	6.7	37.3	71.0
(61-70)	3.6	28.6	75.3
71+	1.9	23.1	93.3
Total	100.0	73.7	27.9

¹Enrollment rates had been calculated for individuals who are 6+.

²Drop out rates had been calculated for individuals who are 6+ and stopped education whereby did not complete preparatory schooling.

Source: Assessment Survey of the Vulnerable Households, Egyptian Food Observatory, June 2012.

Table (3) Proportional break down of heads of households by employment and gender (%)

Employment status	Male	Female	Total
Unemployed	18.2	80.1	31.5
Farmer (not holding property)	12.3	0.9	9.9
Carrier or janitor or office boy	11.3	1.4	9.2
Driver ¹	10.5	0.0	8.2
Seller ²	6.7	8.4	7.0
Worker ³	6.8	0.3	5.4
Construction Worker	4.2	0.0	3.3
Writer (Personnel, Accounts)	2.0	0.9	1.8
Employer	1.7	1.4	1.6
Other	26.3	6.6	22.1
Total	100.0	100.0	100.0

¹Includes truck, microbus, private car, taxi, & bus.

²Seller includes (vegetables and fruits - ready-made garments - cattle - cigarettes - grocery ...).

³Includes technicians (maintenance, electrical, chemical, mining).

Source: Assessment Survey of the Vulnerable Households, Egyptian Food Observatory, June 2012.

2.2 Changes in Income and Expenditure

2.2.1 Household Expenditure

★ Average monthly expenditure of vulnerable households surveyed amounted to L.E. 705, or a daily expenditure of around L.E. 5.8 per person. This is down from average monthly spend of L.E. 771 in March 2012, but higher than that noted in December 2011 at L.E. 658. That pattern is consistent with increasing price trends over the last year, with a slight decrease in the last quarter.

2.2.2 Household Income Sources

★ Based on a recall question for the previous month (May to June), **95.5% of households surveyed reported their monthly income remained unchanged**, while 3.6% of households reported an income reduction by an average of about L.E. 121. **Only 0.9% of the households surveyed reported an income increase**, amounting to L.E. 135 on average (Fig. 7).

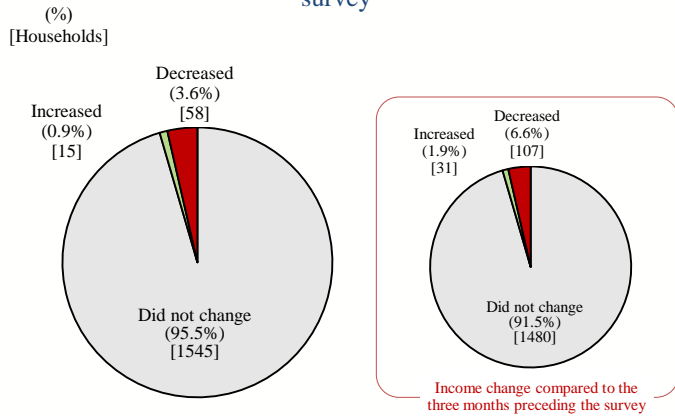
★ Compared to the **three months preceding** the survey, results show that **about 6.6% of the households reported an income reduction** (Fig. 7).

★ Some 43% of households surveyed referred to having additional sources of income to supplement that from their main job. This is against 44.3% in March 2012.

★ **Retirement/ insurance pensions constituted the most sizeable supplementary income source** on top of income from the main job, making up on average 31% of additional income for households surveyed. This is compared to 36% in March 2012.

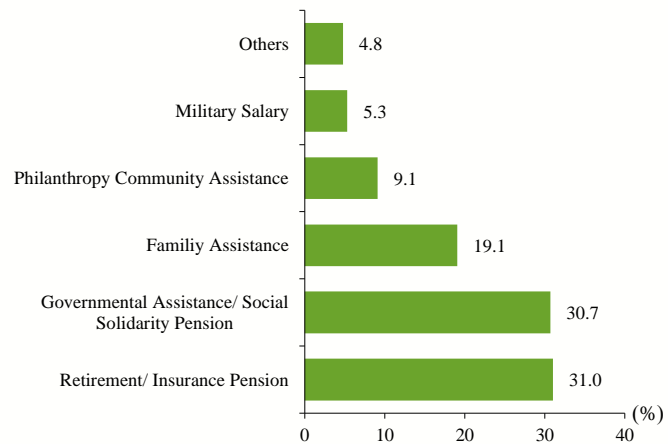
★ **Governmental assistance constituted on average 30.7% of additional income sources**, while charitable assistance constituted about 28.2%, either in the form of philanthropy community assistance (9.1%) or family assistance (19.1%).

Figure (7) Proportional break down of households according to income change compared to the month preceding the survey



Source: Assessment Survey of the Vulnerable Households, Egyptian Food Observatory, June 2012.

Figure (8) Proportional break down of the sources of households' additional income apart from the main job



Source: Assessment Survey of the Vulnerable Households, Egyptian Food Observatory, June 2012.

★ The percentage of households receiving governmental assistance/ social solidarity pensions recorded its highest value in Assuit (53.4%), and South Sinai (45.9%), whereas it recorded its lowest value in Suez (13.8%) and Ismailia (18.7%).

★ The percentage of households taking retirement/ insurance pension recorded its highest value in Alexandria (49.1%), and Suez (43.8%), whereas it recorded its lowest value in Assuit (21.2%), and South Sinai (23.0%).

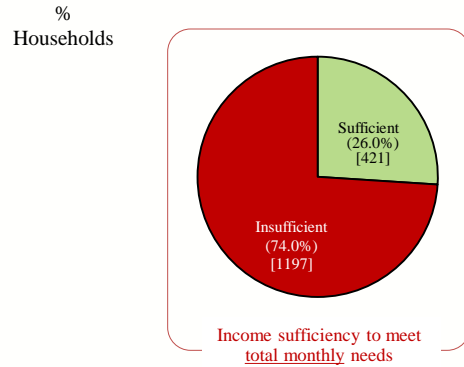


- ✦ In June **74% of vulnerable households surveyed reported their income to be insufficient** to cover monthly needs (including for food, clothes, shelter etc), **down slightly from 74.8%** in March 2012 (Fig. 9). This is consistent with the longer term rise in prices seen over the last year, and static income levels in the context of a weak economic climate within Egypt.
- ✦ The **highest percentage of households surveyed stating their income was insufficient to meet their monthly needs was in South Sinai (89.5%), followed by Luxor (85%)**. This can partly be attributed to the fall in tourism over the last year that has had a sizeable income impact in those areas.
- ✦ The **highest percentage of households surveyed stating their income was insufficient to meet their monthly food needs was recorded in Luxor (98.5%), followed by Assuit (96%)**.

2.2.3 Household Exposure to Shocks and Coping Strategies

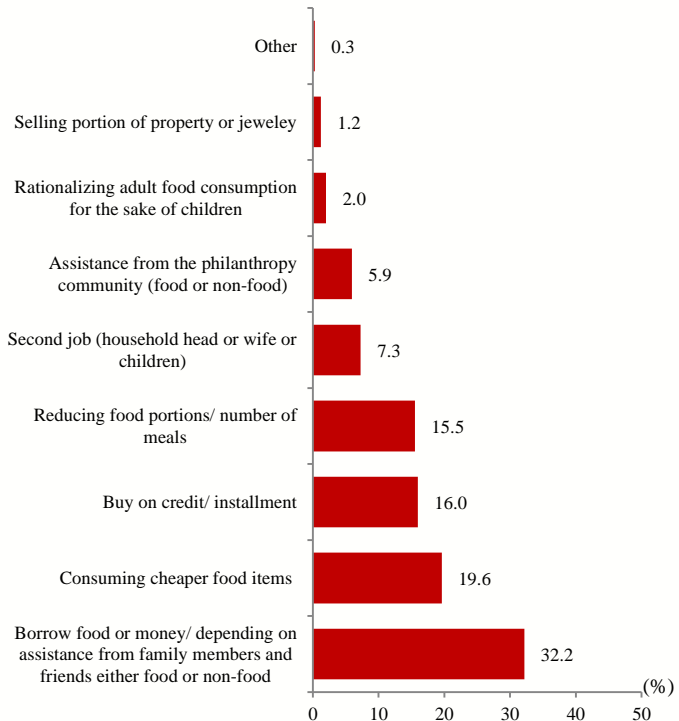
- ✦ Households whose income was insufficient to meet their monthly needs resorted to a number of coping strategies. **The most prevalent coping strategy was borrowing** (Fig. 10) representing 32.2% of coping strategies, as this quarter saw a **growth in the percentage of households borrowing, up from 24.5% in March 2012**.
- ✦ Other coping strategies adopted in order of preference included **consuming cheaper food items (19.6%), buying on credit (16%) reducing food intake (15.5%) and getting an additional job (7.3%)**.

Figure (9) Households break down according to income sufficiency to meet the monthly needs during the month preceding the survey



Source: Assessment Survey of the Vulnerable Households, Egyptian Food Observatory, June 2012.

Figure (10) Coping strategies used by households whose income is insufficient to meet monthly needs



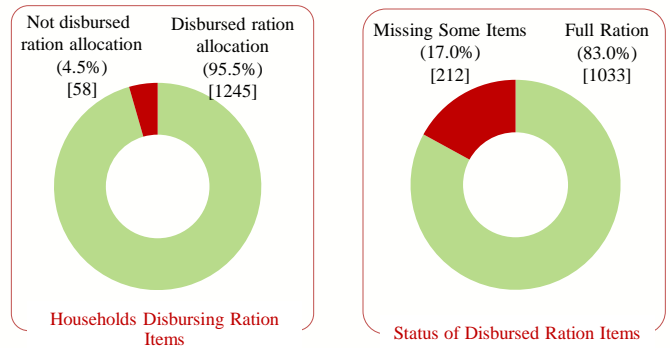
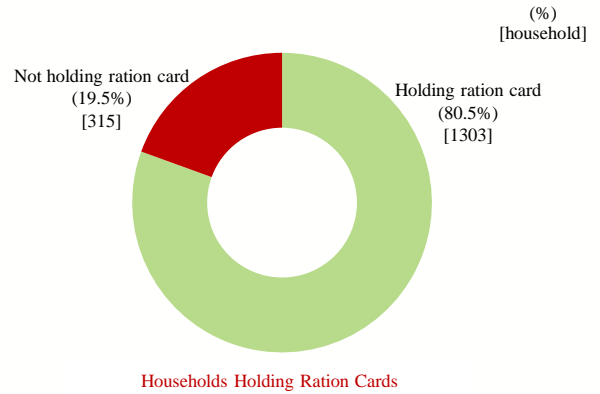
Other includes: One of the members of the family working, Remove the child from the school and appended to the labor market, Sons out of a civil nursery.

Source: Assessment Survey of the Vulnerable Households, Egyptian Food Observatory, June 2012.

2.3 Use of Ration Cards

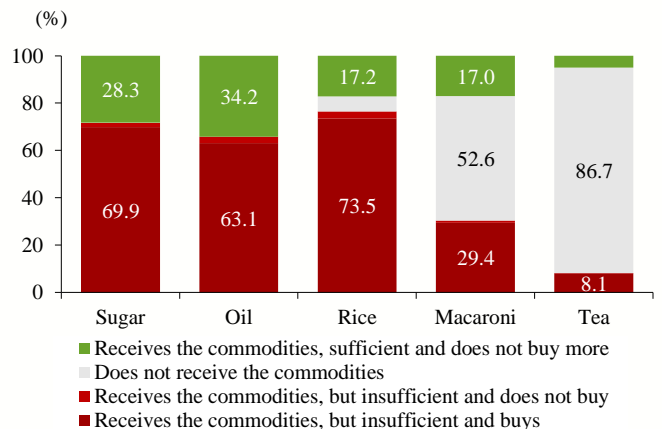
- ☆ A sizeable proportion of vulnerable households (19.5%) do not hold a ration card (Fig. 11). In the current sample of 10 governorates the lowest percentage of vulnerable households holding ration cards were recorded in Alexandria governorate (65.4%), followed by Ismailia (71.6%).
- ☆ Assuit had the highest percentage of vulnerable households holding ration cards (93.8% of the sampled households in the governorate), followed by Gharbia governorate (91.4%).
- ☆ The majority (95.5%) of vulnerable households holding ration cards utilized them to purchase their full ration allocations for May. Of those, 17% did not purchase all items from their allocation.
- ☆ A study by WFP¹ has shown that of items made available by distributors, 100% of sugar was usually sold, 68% of oil, 51% of rice and only 13% of tea. This largely reflects item quality, with over 40% of recipient households citing non-purchase of items due to “bad quality”. “Lack of cash” (for 34% of the most vulnerable households) was another key reason.
- ☆ Of governorates surveyed in Junen2012, the highest percentage of households purchasing their full allocation was in South Sinai (98.3% households), while Alexandria had the lowest (60.4%).
- ☆ The highest percentage of vulnerable households who received insufficient quantities of rationed rice and are obliged to buy additional quantities was recorded South Sinai (89.2%). Similarly for sugar, South Sinai also registered the highest (84.2%).
- ☆ More than three quarters of vulnerable households surveyed who hold ration cards in Fayoum received insufficient quantities of oil and were obliged to buy additional quantities.

Figure (11) Break down of vulnerable households holding a ration card



Source: Assessment Survey of the Vulnerable Households, Egyptian Food Observatory, June 2012.

Figure (12) Sufficiency of the subsidized commodities on the ration cards



Source: Assessment Survey of the Vulnerable Households, Egyptian Food Observatory, June 2012.

¹ WFP and The Ministry of Social Solidarity, *Analysis of Consumer Profile and Behaviour Patterns of Food Subsidy Recipients*, 2009

2.4 Vulnerable Households' Food Consumption

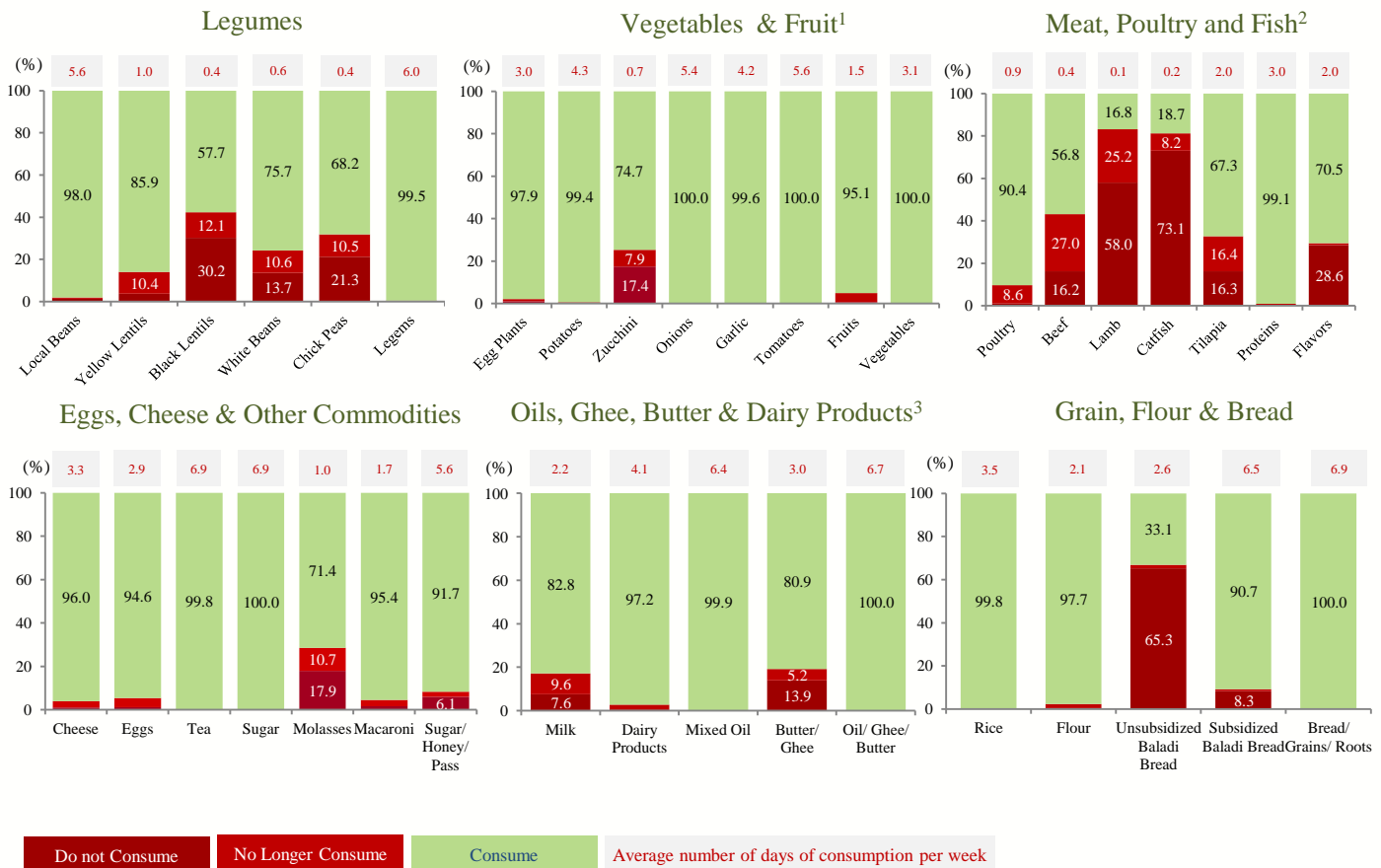
Consumption patterns remained largely stable relative to the last quarter with the commodities most consumed by vulnerable households being: local beans, tomatoes, onions, potatoes, garlic, tea, sugar, mixed oil, rice, and subsidized Baladi bread.

In the last half year some of the most vulnerable households have ceased consumption of certain food items, with over 75% explaining this due to price increases that place the items beyond their purchasing power.

Around 27% of households surveyed ceased to consume beef in the last five months on average, while 16.4% ceased to consume tilapia in the last four months on average.

- With reference to Figure 13 below, cereals and tubers are the only food group that households consume on a daily basis, while 95% of households consume vegetables (except for zucchini), sugar and oil on a daily basis.
- Some 91% of households surveyed consume some form of legumes on daily basis.
- Meat (beef and lamb), and fish (tilapia and catfish) are rarely purchased by the vulnerable households.
- Households consume eggs, cheese, and milk two to three times a week to ensure sufficient protein consumption.

Figure (13) Break down of vulnerable households' consumption by commodity type (from the food basket) and by frequency (number of days a week)



¹Vegetables including leafy and non-leafy vegetables .

²Proteins including meat, poultry, rabbits, fish and eggs .

³Dairy Products except for butter

Butter/ghee including natural and manufactured .

Source: Assessment Survey of the Vulnerable Households, Egyptian Food Observatory, June 2012.



3. Special Report: Subsidized Baladi Bread

3.1 Report Findings and Recommendations

✦ As part of wider efforts by the Ministry of Supply and Internal Trade (MoSIT) to **explore means of increasing the efficiency and reducing the cost of the Baladi bread subsidy system**, it mandated the World Food Programme (WFP) to explore this through a Food Subsidy Reform Project. This looked to strengthening the capacity of the MoSIT to undertake subsidy reforms through better targeting and reduction of waste.

✦ The resultant summary report¹ puts forward a series of recommendations to simplify and improve the efficiency and effectiveness of the subsidized Baladi bread supply chain.

✦ The approach involved **dividing the supply chain into its subcategories**, including procurement, transportation, storage / warehousing, milling, baking and distribution, and investigating them as discrete entities. The project developed a process map for the supply chain and used the CAST supply chain modeling tool to model a base case and two scenarios. The Base Case found **70% of total Baladi bread supply chain costs related to wheat procurement and 20% to production** (baking). Total costs were USD 3.1 billion.

✦ **Scenario 1** looked at long term intervention (over six years) to **create a completely new supply chain system requiring significant investment**. This would result in **annual cost savings of over USD 1.06 billion**, with more than 56% of savings achieved through economies of scale by using ‘super bakeries’. Significant savings could also be made by **eliminating losses/leakages in the supply chain**, thereby reducing the total amount of wheat required. **Cost benefits** could be achieved in all supply chain categories, **the most significant being in baking, transportation and milling processes**.

✦ **Second Scenario** looked at **short-term means of optimizing the existing supply chain** by reducing waste and leakage in the supply chain and increasing

the capacity of mills and bakeries by improving existing staff capacity and machinery performance. Over two to five years, some USD 405 million could be saved annually with minimal investment. Reducing supply chain losses (namely in milling, baking and storage) would result in 50% of the savings.



Key recommendations include:

1. **Addressing milling and baking processes which would give the highest end-to-end returns in terms of cost savings and quality improvement.** Sizeable savings can be achieved with limited modifications to the milling and baking processes, in both management procedures and operations. The study found productivity levels to be low and output to vary significantly due to the absence of adequate management systems and skills, poorly maintained and operated equipment and ineffective quality assurance system for ingredients or final products (wheat, flour and Baladi bread). Management and skills training would improve capacity and production, without requiring high investments.
2. **The creation of a centralized management system (Baladi Control Tower - BCT) to coordinate and supervise all aspects of the supply chain.** Currently there is no single entity responsible for the entire production process; five Ministries and 16 authorities are responsible for various sub-components of the supply chain. The BCT would oversee **efficiency, transparency and accountability to production and distribution**. A key function of the BCT would be to **apply Key Performance Indicators (KPIs)** developed by the project to effectiveness and quality.

¹ WFP, Optimizing the Baladi Bread Supply Chain, July 2012



3. Procuring better quality flour:

- ✧ A 7% increase in wheat cost was factored in to both scenarios to allow for improvements in the quality of the wheat procured.
- ✧ Improving the supply chain goes hand in hand with improving bread quality. The new system only works if the right wheat is purchased and processed efficiently and hygienically, to produce a more nutritious product that will also improve public health. The cost of purchasing more expensive international and local wheat is offset by savings and benefits accrued through production processes.

Cost savings identified can only be achieved when reforming the supply chain end-to-end, including the installation of a rigorous audit and control system, represented by the BCT and KPIs. Applying international best practices in milling and baking will significantly improve the quality and availability of Baladi bread.*

3.2 Consumption of Subsidized Baladi Bread

- ✧ Baladi bread is the main staple for most Egyptians; **90% of households consume it and 60% are dependent on it**¹.
- ✧ **Per capita consumption averages 4 loaves per day**¹, or **17 loaves per household in rural areas and 22 in urban**². Average annual per capita consumption amounts to 200 kg against a global average of 110 kg³.
- ✧ **Households on Social Assistance (77%) are more likely than those not (70%) to buy subsidized Baladi bread**², which is sold at the lowest price globally (5 piaster/ loaf) and produced at a 25 piaster/ loaf cost³.
- ✧ **Main reasons cited for not buying Baladi bread** included: home baking (for 46% urban and 59% rural households), bad quality (24% urban and 7% rural) and long waiting-time (30% urban and 34% rural)².
- ✧ Some **67% of urban consumers and 63% of rural ones noted dissatisfaction with quality**².
- ✧ 70% of urban and 79% rural consumers noted the **bread is available only at certain times** with limits on purchase quantities².

- ✧ A key recommendation of food subsidy system has been the need for **better geographic targeting of Baladi bread** (and other Ration Card items) distributed equally at both governorate and regional levels to meet the needs of the poorest households, as the largest share of Baladi bread goes to high-expenditure households².

3.3 Baladi Bread Production Challenges³

A number of challenges exist in the production of Baladi bread. These include:

- ✧ **Use of labour-intensive rather than automated techniques.**
- ✧ A **lack of trained bakers** and poor quality of those who are trained.
- ✧ A poor distribution system. For example, while flour should be distributed across governorates based on population, **distribution is skewed in favour of bakeries operating in urban governorates.**
- ✧ **The sale price of bread is fixed since 1989** despite growing costs. Bakers thus **decrease bread weight and quality to cover costs.**
- ✧ Due to supply chain inefficiencies, **Egypt loses some 7 billion loaves per year.**
- ✧ Egypt's bread consumption stands among the highest rates worldwide, though figures are disputed given **leakages in the supply chain and lower actual consumption** given poor product quality. Losses estimated at 25% occur due to inefficient manufacturing and distribution methods, while wheat also leaks from the supply chain to other industries such as for animal fodder.

Bread Production and Distribution Actors

- ✧ **General Authority for Supply Commodities (GASC):** distributes local wheat through farmers or imported wheat from international markets.
- ✧ **Transport companies:** transport and deliver wheat to those distributors in governorates.
- ✧ **Milling companies:** mill wheat and corn to produce hybrid flour (80% flour and 20% corn). GASC receives bran and secondary output from these companies.
- ✧ **Baladi and non Baladi bakeries:** assigned to produce bread according to standards.

Source: IDSC, Current Situation of the Bread Industry in Egypt, Development Proposals, and International Experiences, August 2008.

* The next issue will include recommendations on the simplification of the Baladi bread system.

¹IDSC, Subsidized Bread in Egypt, Figures and Facts, June 2010.

²WFP and The Ministry of Social Solidarity, Analysis of Consumer Profile and Behaviour Patterns of Food Subsidy Recipients, 2009.

³Food and Agriculture Organization, <http://neareast.fao.org/Pages/NewsDetails.aspx?lang=AR&I=0&DI=0&CI=EG&CMSID=83&id=2402568>.

⁴IDSC, Developing mechanisms for Production and Distribution of Subsidized Bread, March 2006; IDSC, Current Situation of the Bread Industry in Egypt, Development Proposals, and International Experiences, August 2008.



Annex: Survey and Composite index Methodology

1 Monthly Burden Index Methodology

✦ Index of the "Monthly Price Burden" reflects differences between the prices of basic food commodities basket in each one of the months subject to observation, as well as their prices based on a specific reference time point.

✦ Development of the index depended on selecting a basket of commodities representing the main food groups (27 commodities) which, the Egyptian household uses in its meals. This basket would include one measuring unit from each one of the selected commodities that contains:

1. *Meat, poultry and fish group including a kilo of: beef, veal, lamb, poultry, catfish, Mugil Cephalus, and tilapia.*
2. *Vegetables group including a kilo of: eggplants, potatoes, onions, garlic and tomatoes.*
3. *Legumes group including a kilo of: local beans, yellow lentils and black lentils.*
4. *Grain and flour group including a kilo of rice and wheat flour.*
5. *Butter, oil and ghee group including: corn oil (liter), sunflower oil (liter), natural ghee (kg) and processed ghee (kg).*
6. *Eggs, dairy products, cheese and others group including: eggs (package of 30), dairy (Liter), cheese (kg), macaroni (kg), tea (kg) and sugar (kg).*

In order to measure the monthly price burden of the commodities basket, first, the monthly average of the unit price of each commodity should be calculated using the weekly prices collected by the Field Monitoring Network based on the equation:

$$X_{jk} = \sum_{i=1}^{n_j} x_{ijk} / n_j$$

Since:

X_{jk} : is average monthly price of the commodity K in month j.

x_{ijk} : is the unit price (L.E.) of the commodity k in week i of the month j.

n_j : is the number of weeks in the month j.

Then total monthly prices of the commodities basket is calculated (27 commodities) in each of the months subject to measuring by using the equation:

$$X_j = \sum_{k=1}^{26} X_{jk}$$

Since:

X_j : is total monthly average of the price (L.E.) for the commodities basket in month j.

This total is then compared during each of the months of measuring against the reference price of this given basket which had been selected to be its price in the first week of January 2011¹ which is calculated using the equation:

$$Y = \sum_{k=1}^{26} x_{11k}$$

Since:

Y: is the reference line for measuring the monthly burden of prices.

x_{11k} : is the unit price of commodity k (in Egyptian Pounds) in the first week of January 2011.

2 Rural Price Observatory Methodology

The Rural Prices Observatory addresses prices of the commodities' basket according to the weekly market in the villages visited during the round of the Survey on the vulnerable households in all governorates except urban ones.

Price collection occurs on a monthly basis in both rural and urban areas surveyed.

3 Vulnerable Households Survey Methodology

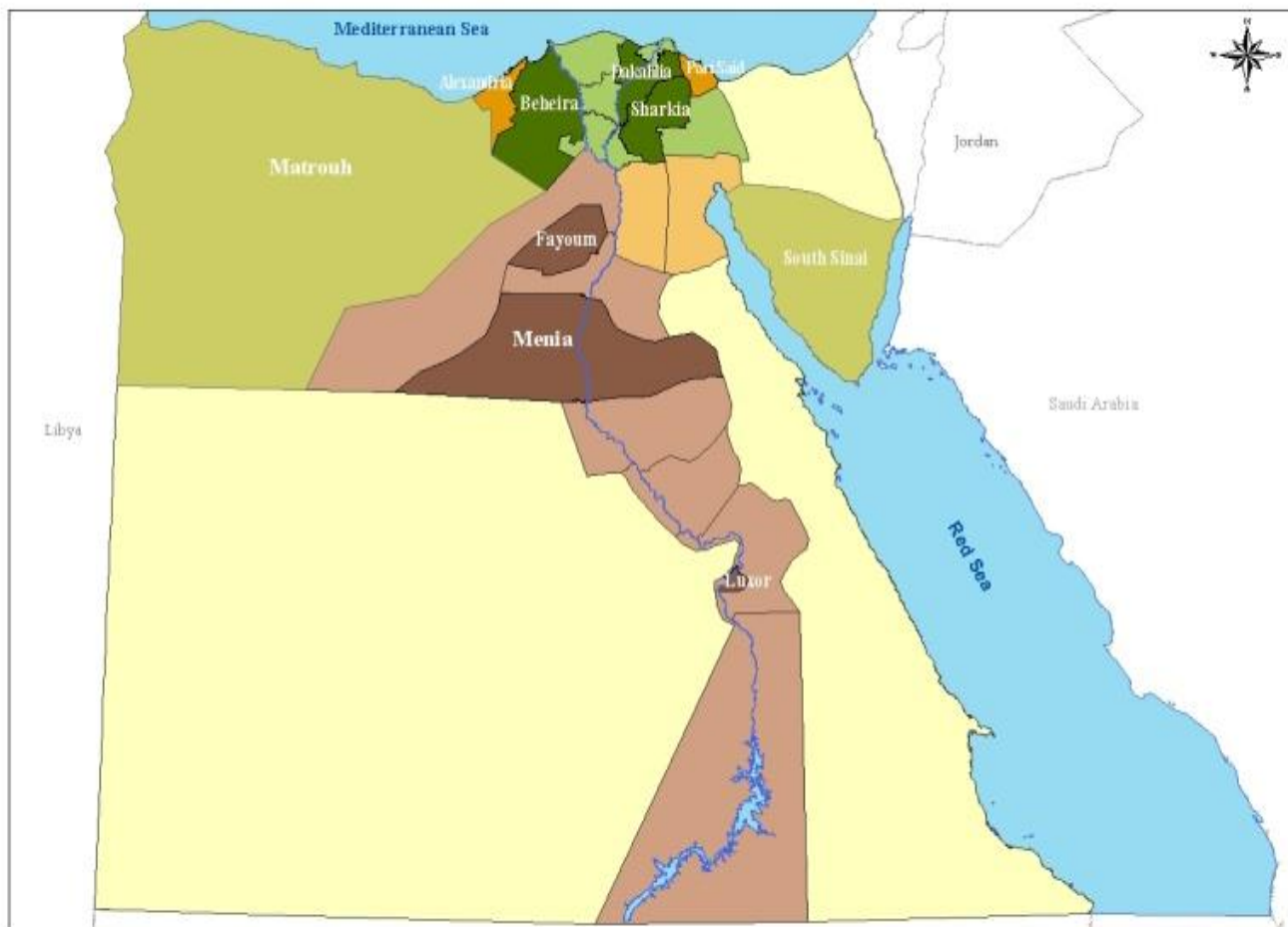
In each round the survey targets 10 governorates including two urban, three Lower Egypt and three Upper Egyptian governorates (north and central Upper Egypt), in addition to two frontier governorates in the Eastern and Western regions. The 10 governorates are changed in each round in order to demonstrate the scale of differences nationwide. In each governorate, one urban and one rural areas are targeted except urban governorates where two urban areas are targeted. Informal or poor areas are targeted where vulnerable households are identified within each target area.

The assessment survey of the vulnerable households was conducted in the first week of June-2012, for a sample of vulnerable households (1618 households amounting to about 162 household per governorates) distributed on governorates in main regions as illustrated by the GIS system, (see map on page 15).

¹The first week of January 2011 had been selected instead of the average prices of the month in order to evade consequent impacts of the January 25th Revolution.



Map of Targeted Governorates



- | | | | |
|--------------------------|-----------------------------------|--------------------------|-----------------------------------|
| Upper Egypt governorates | Targeted Upper Egypt governorates | Frontier governorates | Targeted Frontier Governorates |
| Urban governorates | Targeted Urban governorates | Lower Egypt governorates | Targeted Lower Egypt governorates |

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