Secondary data analysis of the food security situation in Egypt

EGYPT

May 2011

World Food Programme
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Regional Bureau for the Middle East, Central Asia and Eastern Europe - ODC

Egypt Country Office

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EXECUTIVE SUMMARY

A series of shocks affected Egypt in 2011, including internal civil disturbances, the rise of food prices and a massive return of migrants from Libya. A review of secondary data was conducted to update the knowledge on the food security situation in Egypt, identify information gaps and support decision-making on food security interventions.

Egypt is the most populous country in the Arab world with an estimated 79.6 million inhabitants in 2010. Education has made progress but shows bias towards high-cost urban and tertiary education, and is ill-adapted to the labour market needs. Female labour participation is very low.

Economic growth was positive in 2009/10 (5.1%) but is expected to slow down due to the economic downturn and recent political developments. Services account for about half of GDP (public administration, tourism and Suez Canal), followed by industries, mining and construction (more than 1/3 GDP) and agriculture (14%). Agriculture employs about 30% of the labour force however.

The main productions are wheat, rice, cotton, beans, fruits and vegetables, and livestock. Agriculture is highly subsidized (irrigation, fertilizer), enabling high yields. However, due to rapid population growth (2% per year) and agro-ecological and structural challenges, domestic food production is not sufficient to cover the population consumption requirements. Self-sufficiency in wheat, beans and maize is only about half of consumption requirements and vegetable oils 30%, and the complement must be imported. Self-sufficiency is achieved for rice and also quite high for red meat (70%) and milk (over 90%). Fisheries and aquaculture have progressed in recent years, contributing to increased consumption of fish.

Egypt is the world's largest wheat importer. Most of the wheat imports are used for the subsidized food system. As a result, the rise of wheat prices is putting a heavy strain on government's budget. Domestic inflation reached 11% in 2010 and beginning of 2011. Nominal wheat prices have increased by 32% in 2010 and rice by 42%.

A very low share of basic food consumed by households comes from own agricultural production, even in rural areas (less than 20%), therefore most of the food must be purchased and access to food depends very much on income, transfers (e.g. remittances) and market prices. Overall poverty declined between 2005 and 2008 from 23% to 19% but extreme poverty rose in rural areas (from 7% to 9%). Rural Upper Egypt continues to be the poorest region, hosting half of the poor and 2/3 of extreme poor in 2008. Sohag and Assiut governorates presented the highest poverty rates.

Egypt counts a large number of migrants (2.7 million in 2010) and remittances represented about 5% of GDP in 2009. Libya ranked on the top of the list of destination of migrants as a result of proximity and visa facilities. However, by mid-April 2011, an estimated 200,000 Egyptian migrants had returned to Egypt due to the conflict outbreak, with many moving back to their rural areas of origin in Lower and Upper Egypt and putting pressure on local markets for food and labour.

Based on their permanence in poverty between 2005 and 2008, an estimated 10% of the households were chronically poor, mostly in rural Upper Egypt. Conversely, about 10% of households moved in and out of poverty (transitory poor). Typically, poor households have limited or no access to land, fragmented land plots, small livestock numbers, little or no education, no marketable skills, limited access to health and other social services, unstable employment (e.g. in construction or agriculture) and high dependency ratio. Unemployment and under-employment are high, especially among the newly graduated and women.

The food subsidy system is the main safety net programme in terms of coverage and cost. About 80% of the population benefits from ration cards for subsidized food (rice, sugar, oil, tea), and every household has access to subsidized balady bread. However, households still have to purchase substantial amounts of commodities (e.g. sugar, oil) and complementary fresh foods which are more expensive. According to the 2008-09 Household Income, Expenditure and Consumption (HIEC) survey, food expenditures amount to 53% of total expenditures for the poorest decile of households and 33% for the wealthiest decile. There are a
number of challenges with the subsidized food system, including exclusion and inclusion errors, low quality of subsidized bread, insufficient quantities to make a significant difference for the most vulnerable, long queues and corruption.

The government also contributes to pension funds and cash transfers for special categories of vulnerable persons but coverage and the amounts transferred are low. WFP supports the National School Feeding programme which benefits some 5.5 million children out of 12 million eligible.

On the basis of education level of the head of household, per capita food expenditures, income and asset ownership, about 1/5 of households in Upper Egypt, Lower Egypt and Metropolitan areas were considered highly vulnerable to food insecurity in 2008. The proportion was particularly high in Sohag, Minia, Giza and Assiut governorates in Upper Egypt, Alexandria governorate in the Metropolitan areas, and Dakahlia governorate in Lower Egypt. The 2008-09 HIEC estimated that 22% rural households and 17% urban households consumed less than the minimum 2100 kilocalorie per capita requirements. Overall, 11% households cumulated income-poverty and low kilocalorie intake, including 14% in rural areas and 5% in urban areas. These households can be considered severely food-insecure due to the combination of poor economic access and inadequate food consumption.

The main underlying factors of food insecurity among Egyptian households are: low income, loss of purchasing power due to increased cost of living and unemployment, low agricultural production, lack of access to social assistance systems (including subsidized food), and low access to good quality water, sanitation and health services. Poverty is a critical structural factor of food insecurity. The chronically food-insecure households are likely to be: unemployed, relying on unstable and low-paid source of income or social cash transfers, indebted, unable to dedicate sufficient amount of expenditures for food, with low education levels and child school enrolment rates, owning few productive assets (including land and animals in rural areas), of large size, and living in remote and poorly serviced locations. Transitory food-insecure households differ from the chronically food-insecure essentially by the level of stability of their main sources of income.

The average amount of kilocalorie per capita available for consumption at national level (based on Food Balance Sheet data) is high at 2780 kcal but there is a paradoxical combination of under-nutrition among children and over-nutrition among the young and adults. In 2008, some 7% children under 5 years of age were wasted and 29% were stunted, reflecting a deterioration compared to 2005. More analyses are needed to disentangle the various factors of under-nutrition, including poverty, food insecurity, poor public health environment, and inadequate child feeding practices. Micronutrient deficiencies are widespread, especially anaemia which affected almost half of women 20-50 years and 40% of under-5 children in 2010. WFP supports the government's food fortification efforts, including for commodities of the subsidized food basket.

A series of interventions are possible to address the various factors of food insecurity, such as: improved nutritional quality of subsidized food commodities, job creation, vocational training, cash transfers, micro-credit, agricultural inputs, facilitation of access to land and to extension services, school feeding, upgrading of water and sanitation systems and improved quality of health and education services.

The crisis in Libya may deepen the severity of chronic food insecurity for some households and create transitory food insecurity for others who relied on remittances for their income and food purchases. Other households may be indirectly affected (e.g. traders) but more studies are needed to assess the impact of migrant returns and loss of trade with Libya on household food security. Similarly, additional surveys, using a mix of quantitative and qualitative approaches, are needed to estimate the effects of civil disturbances and increased food prices on food security, including in urban slums.
INTRODUCTION

This secondary literature review and analysis of the food security situation in Egypt was undertaken in the context of civil disturbances in January-February 2011 resulting in the set-up of an interim government, and of the rapid return of migrants from Libya and influx of Third Country Nationals (TCNs) and Libyan nationals as a result of the conflict outbreak in Libya mid-February 2011. By end April 2011, an estimated 241,720 persons had entered Egypt since the beginning of the conflict. Possibly about half of them were TCNs, most of whom have already been repatriated to their country of origin1.

The civil unrest in Egypt affected the economy while the return of Egyptian migrants from Libya created hardship for families who used to receive their remittances and put pressure on the labour market. The conflict in Libya also entails a disruption of trade activities with Libya but the extent of losses for Egyptian producers and traders is unknown.

These shocks add to the negative effects of the global economic crisis in 2009-10, which decreased tourism and exports, and of the sharp rise of food prices from mid-2010 onwards.

The present review covers the whole country and population, and does not focus specifically on the recent Libya-related events. Based on existing information, it attempts to estimate levels of household food insecurity and identify the underlying and basic factors of food insecurity, including food production and trade, household economic access to food, social assistance programmes, and food consumption. It also reviews data on the nutrition situation and its relationship with household food security.

This information should support decision-making on food security responses and targeting criteria in Egypt.

I - CONTEXT

1.1 - Geography

Egypt shares borders with Israel and the Gaza Strip (280 km), Libya (1,115 km) and Sudan (1,270 km). It covers an area of 997,740 km². The climate is hot and dry (semi-arid to arid).

The country comprises 4 main regions: Upper Egypt (Nile Valley), Lower Egypt (Nile Delta), Frontier Governorates (on the eastern and western boundaries) and Urban Governorates2. There are 27 governorates, divided in 133 districts.

Table 1: Administrative division

<table>
<thead>
<tr>
<th>Upper Egypt</th>
<th>Lower Egypt</th>
<th>Frontier Governorates</th>
<th>Urban Governorates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Giza</td>
<td>Damietta</td>
<td>Red Sea</td>
<td>Cairo</td>
</tr>
<tr>
<td>Beni Suef</td>
<td>Dakahlia</td>
<td>New Valley</td>
<td>Alexandria</td>
</tr>
<tr>
<td>Fayoum</td>
<td>Sharkia</td>
<td>Matrouh</td>
<td>Port Said</td>
</tr>
<tr>
<td>Minia</td>
<td>Qualobia</td>
<td>North Sinai</td>
<td>Suez</td>
</tr>
<tr>
<td>Assiat</td>
<td>Kafr El Shiek</td>
<td>South Sinai</td>
<td></td>
</tr>
<tr>
<td>Sohag</td>
<td>Garbeyya</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Qena</td>
<td>Menoufia</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aswan</td>
<td>Beheira</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Luxor</td>
<td>Ismailia</td>
<td></td>
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</tr>
</tbody>
</table>

1.2 - Political context

The popular uprising, which led to the ouster of the president in February 2011, was expedited after the Supreme Council of the Armed Forces put pressure on him to stand down. The Council has assumed the president’s responsibilities and announced that it will oversee the transition process for a period of 6 months or until new presidential and parliamentary elections are held. A parliamentary election could be held as early as September and a presidential one could follow at end of 2011. A referendum should be called earlier on the proposed changes to the presidential and legislative elections articles of the constitution3.

1 OCHA. Situation Report No.31. Libyan Arab Jamahiriya. 29 April 2011.
2 The Urban Governorates comprise Cairo, Alexandria, Port Said and Suez, and have no rural population. The other governorates are sub-divided into urban and rural areas.
The anti-regime uprising stemmed from discontent at the last general election at the end of 2010 which was widely criticized as being highly fraudulent. A prolonged period of political uncertainty is expected before a more stable system emerges.

1.3 - Population

Egypt is the most populous country in the Arab world, with a population estimated at 79.6 million in 2010. As only 5% of the territory is inhabited and cultivated, with the rest occupied by the desert, population density is high in non-desert areas (about 900/km²). Most live in the narrow stripe of the Nile valley that runs the length of the country, and in the Nile Delta at the north.

More than 40% of the population lives in urban areas. Greater Cairo counts some 18.4 million inhabitants, (including 10.9 million in Cairo city), Alexandria 4.1 million, and Port Said and Suez cities about 0.5 million each. Cairo is particularly overcrowded, with a population density above 100,000/km² in some urban districts. An estimated 2.7 million of Egyptians are living abroad, essentially in Arab countries (70%). There are also between 140,000 and 160,000 refugees in Egypt, mainly from Iraq and the Palestine territories, with a lower number from Sudan.

The vast majority of the population (90%) is Sunni Muslims, and around 10% are Coptic Christians. Tensions between the two communities flare up periodically.

The population growth rate has been stable at about 2% per year since the past few years. The population is young, with more than 30% below 15 years of age and only about 6% over 60. The average family size in 2008 was 4 members in urban areas and 5 in rural areas. Some 15% of urban households were headed by a woman and 12% of rural households. The largest family size was found in rural Upper Egypt (around 6 members on average).

Egypt's Human Development Index in 2010 was 0.620, higher than the regional average for Arab States of 0.590. Egypt HDR rank also improved from 101 in 2007 to 123 in 2010. The HDR is lower in Upper Egypt although it has progressed more in this region than elsewhere. Life expectancy at birth is estimated at 74 years for women and 70 years for men.

1.4 – Education

Primary and secondary education is free and compulsory. The rate of primary school enrolment has risen to 94% in 2009 and secondary enrolment to 70%. Literacy rates among adults have reached 58% for women and 75% for men, with rates rising to 82% in young women aged 15-24 years and 88% in young men.

However, the government’s bias towards high-cost urban and tertiary education has resulted in unequal access to education for different groups, with women in Upper Egypt being the most deprived. The state system is also overloaded and the quality of education is considered low. Furthermore, despite being free, households have to cover a number of costs for uniforms and textbooks, which hinder attendance for the poorest. Upper education is also considered ill-adapted to the needs of the labour market.

1.5 – Gender

There have been improvements in gender parity over the past decade, especially in education. However, a higher percentage of females aged 10-19 years continued to be uneducated compared to males (13% and 3% respectively).
In addition, Egypt has one of the lowest female labour participation rates in the world (24%) and few women take part in public or political life, mainly due to cultural barriers. Social pressure is high on women to form a family and bear children rather than being employed and earn an income, and a relative independence. Unequal opportunities in the labour market compound the employment problem for women. While women can expect to be treated similarly to men with similar qualifications and experience in the government, they suffer from a large gender gap in wages and opportunities for advancement in the private sector.

There are numerous laws protecting and promoting equality between men and women, but actual implementation still limits or even contradicts this right. In Egypt, personal status law organizes family relations during marriage, divorce and the related economic implications, and custody of children.

1.6 - Economy

GDP growth was estimated at 5.1% in 2009/10, a positive performance against the background of the global recession. Egypt exports have been hit by the economic downturn and will slow again significantly owing to the recent political developments and despite the recovery in the Economic Union (EU) and the US which are Egypt’s largest export markets. GDP per capita estimates vary between sources but would be about US$5,860 in 2010.

About ½ of the GDP is accounted for by services, including public administration, tourism and the Suez Canal. Tourism is a very important sector in Egypt, accounting for 11% of GDP in 2007 and 40% of non-commodity exports. However, according to government statistics, the share of tourism would have shrunk to 3%-4% of GDP in 2009-10. The Suez Canal is another important source of foreign exchange. Receipts have been boosted by rising usage owing to rapid increase in global trade with China and the surge in world oil prices, which has made it more cost-effective for tankers to take the shorter route to Western markets via the Canal than sail around Africa.

Agriculture contributed 14% of GDP in 2007. Industries, including oil refining, is heavily concentrated in Cairo and the Nile Delta, and made up 19% of GDP. Mining (especially oil and gas extraction) is also significant, accounting for 9% of GDP. More than half of export earnings are driven by hydrocarbons and derivatives. Crude oil reserves, however, should last some 15 years only at current extraction rates. There is a large informal sector, estimated to represent 30% of total economic activity.

Cotton farming and textile manufacturing have declined since 2004 due to inconsistent government policies and increasing competition from cheaper producers in India and China. The construction industry has grown strongly since the mid-2000s. Nearly all basic construction materials are produced locally, but supply is erratic and costs have soared in recent years, mainly owing to the removal of fuel subsidies and rising fuel costs.

With regards to communication infrastructure, paved roads have expanded but many are in poor conditions and road safety is a major concern.

The trade balance is in deficit as the country’s population has outstripped its productive capacity, particularly for food. However, the large deficit is offset by non-commodity surpluses, including remittances (increasing since the mid-2000s), tourism and the Suez Canal receipts.

Reforms introduced in 2005 substantially broadened the tax base. However, expenditures continue to grow, mainly because wages and salaries of public employees were increased as a result of election promises, and again in 2008 in response to the high food prices, and because of food and fuel subsidies (the largest spending item), in addition to increasing interest payments on public debt.

The interim government is likely to put economic reforms on hold and concentrate on maintaining supplies of essential goods and services to the population and on creating jobs, for example through allocating

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14 EIU. Egypt Country Report, March 2011
15 Ministry of Finance.
16 EIU. Egypt Country Profile 2010.
17 EIU. Egypt Country Profile, 2010
resources for public works projects. This is likely to result in a significant fiscal deficit, as spending will increase while revenue will be depressed by a fall in economic activity and trade.\textsuperscript{18}

Private consumption and exports, particularly of services (tourism), will fall in 2011 as a result of the political unrest. Tourism revenues are forecast to nearly halve from 2009/10 levels. On the other hand, a number of donors (EU, US) and financial institution (International Monetary Fund, European Bank for Reconstruction and Development) have expressed willingness to help Egypt recover from the economic cost of the unrest and some have already confirmed their commitments.

Box 1 summarizes the economic outlook for the coming few years according to the Economist Intelligence Unit.

<table>
<thead>
<tr>
<th>Box 1 - Short-term economic perspectives</th>
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<tbody>
<tr>
<td>• The interim government will likely abandon plans for further economic reforms and liberalisation, to focus instead on stabilising the economy.</td>
</tr>
<tr>
<td>• Real GDP growth is expected to fall to a little less than 2% in 2010/11 owing to the impact of the political crisis, but the economy should recover from mid-2012. GDP growth in 2011/12 is projected at 4.9%.</td>
</tr>
<tr>
<td>• Higher spending, particularly on subsidies, and a fall in tax and customs receipts will push the fiscal deficit up to an average of 11% of GDP until 2011/12.</td>
</tr>
<tr>
<td>• The Egyptian pound will depreciate, which will add to inflationary pressures.\textsuperscript{19}</td>
</tr>
<tr>
<td>• The loss of tourism revenue will result in a large increase in the current account deficit in 2011 and 2012 and high unemployment rates. Tourism recovery will depend largely on continued stability.</td>
</tr>
</tbody>
</table>


\textsuperscript{18} EIU. Egypt Country Report. March 2011.

\textsuperscript{19} The Central Bank of Egypt announced in March 2011 that it was allowing the Egyptian pound to depreciate against the US dollar up to 6:1.
II - FOOD PRODUCTION

Agriculture’s economic contribution is gradually diminishing but is still an important activity, accounting for 14% of GDP in 2007. The sector remains the country’s largest employer, with about 30% of the labour force. Although only 11% of women are estimated to be part of the labour force, their share is much higher in agricultural activities, representing some 40% of the agricultural labour force.

The main productions are wheat, rice, cotton, beans, fruits, vegetables (particularly onion and tomato), fruits, poultry, cattle, water buffalo, sheep and goats. The country is self-sufficient in rice, sorghum and onions. Self-sufficiency reaches 75%-80% for barley and sugar cane. However, coverage of consumption requirements is only 50%-60% for wheat, beans and maize, about 30% for vegetable oils, and 5% for lentils, soybeans, other oil crops, and fodder crops except berseem (70% self-sufficiency). Egypt is a major food-importer owing to its large population and still rapid population growth.

2.1 – Crop production

Only 3% of the total land area is arable. Agriculture is highly subsidized, with irrigation water provided free by the government. The government is also controlling the price and supply of chemical fertilizers, facilitating access of large quantities of cheap fertilizers to farmers.

There are on-going projects to reclaim desert land for agriculture, however the overall area under cultivation has remained constant as agricultural land is lost to urban and industrial expansion. Reclaimed desert land (‘new land’) represents about 15% of the total cultivated area.

Given that there are 2 growing seasons (summer and winter), the total cropped area amounts to about 6.3 million hectares. The production system is predominantly smallholder-based mixed farming. Almost half of the farmers cultivate holdings of 0.85 hectares (2 feddans) or less. Production is therefore intensive, and fertilizer use is among the highest in the world. Yields are also high, despite the irregular and insufficient supply of water for irrigation. Cropping is almost entirely dependent on irrigation, taking place in the Nile Valley and Delta, with only 9% cultivated in rain-fed areas and in the oases.

In “old lands”, land fragmentation is the main problem that hinders cultivation of strategic staple crops as wheat. For these small farms, cultivation is of subsistence nature, to satisfy the family's basic needs in cereals and fodder for the animals. However, access to subsidized food (see paragraph 4.5.1) at much lower cost compared with farm-gate prices for wheat and rice also encourages sales instead of self-consumption only. Due to the small area cultivated, farmers are obliged to diversify their income sources within and outside the agricultural sector, including through seasonal migration to urban centres and abroad. A relatively large part of the agricultural output is sold immediately after the harvest in order to repay loans.

Plot sizes are larger in the ‘new lands’. Large farms on these lands are more market-oriented and specialize in cash crops such as vegetables and fruits (as well as fodder crops and livestock), in great part for exports.

Cereals account for about half of the total cultivated area. The area planted under wheat is influenced by the purchase price of the government, which leads the other prices on the wheat market (see paragraph 3.3.2). Although some yield improvement is still possible, inter alia through better water management, the scope for further increasing wheat production beyond the average 8 million tons currently produced is limited.

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20 FAO. Egypt Country Profile, 2010.
23 Based on a more than 10-year old census (2000), almost 20% of those engaged in agriculture were landless, more than 1/3 cultivated less than 1 feddan (0.42 hectare) and about 30% cultivated between 1 and 3 feddans (0.7 hectares on average).
24 Farmers obtain fertilizer entitlements (quotas) for wheat, maize, cotton, rice and the main fruit and vegetable crops (beans, tomato, orange, potato, banana). These entitlements are determined based on the farmers’ declared planned rotation and crop areas. Beneficiary farmers have to be registered with the local cooperative or the village bank and prove that they own the land they cultivate. – Source: Government of Egypt/FAO/WFP/IFAD/World Bank/NEPAD. Initiative on Soaring Food Prices (ISFP). Inter-Agency Mission. Increasing Productivity in the Agricultural Sector. Working Paper 3. February 2009.
Because rice is a water-intensive crop, rice producers must obtain permission for the area planted from the Ministry of Water Resources and Irrigation, but due to the high profitability of rice and because the rule is not enforced, the area planted under rice is well above the permitted 1.2 million feddan\textsuperscript{26}. However, in response to the food price rise in 2008, the government banned rice exports, thus discouraging rice cultivation. The ban was subsequently extended indefinitely due to the government’s desire to provide a disincentive to (surplus) rice production. In 2010, the rice output dropped by 18% compared to 2009\textsuperscript{27}. Rice cultivation also decreased because of enforced laws on irrigation water quota per rice farm.

Over the past 25 years, the average production of cereals increased by about 55%, beans by 46%, oil crops by 24% and forage crops by 20%. The food production per capita index has progressed, but as the population also grew substantially during the period, it remains rather low at 199 in 2010 compared to a base 100 in 1999-2001 and to the world average of 233\textsuperscript{28}.

![Figure 1: Production of Tomamto 1992-2007](image)

Harvesting of the 2010/11 winter crops will commence in April/May. Preliminary indications point to an average to above-average cereal output in 2011\textsuperscript{29}.

The main challenges for agriculture include land fragmentation, agricultural land being lost to urbanization, windblown sands, and desertification; increasing soil salination (inter alia due to waterlogging after the construction of the Aswan High Dam); limited and irregular supply of irrigation water; and reduced natural fresh water resources away from the Nile which is the only perennial water source.

Climate change also entails risks for food production through a decrease in the total water supply and sea level rise. Cereal yields are expected to decrease with rising temperatures, while cotton could do better\textsuperscript{30}.

2.2 - Animal production

Animal production contributes to more than 40% of the total value of agricultural production on average. Animal raising also plays a significant role for households’ income, generally more important than crop income.

In 2007 there were an estimated 4.9 million cows, 4 million buffalo, 5.5 million sheep, 4.2 million goats and 146,600 camels\textsuperscript{31}.

Livestock production is dominated by small farmers (about 80% of the output) but the number of modern dairy and beef farms has increased over the past few years Almost 40% of rural households owned animals


\textsuperscript{27} FAO/GIEWS. Egypt Country Brief. 17 February 2011.

\textsuperscript{28} FAO/GIEWS. North Africa Brief. March 2011.

\textsuperscript{29} FAO/GIEWS. North Africa Brief. March 2011.


in 2008, with a higher proportion among rural households in Upper Egypt (49%)\textsuperscript{32}. Cattle are mainly kept for dairy production, but 80% of domestic red meat consumption comes from local production. Berseem is the main forage crop but the production does not meet all animal feed requirements, especially as the number of animals is rising to meet increasing demand for meat. In 2006, the country was almost 70% self-sufficient in red meat and more than 90% self-sufficient in milk. However, many landless and smallholder animal producers had to sell off their livestock, especially large ruminants, following the soaring cost of animal feed in 2007/08.

![Figure 2: Evolution of livestock herd 1990-2007](image)

Poultry production (and consumption) has also increased. There are an estimated 1.5 million permanent workers and about 1 million temporary workers engaged in this activity\textsuperscript{33}. About 1 in 6 households owned or kept poultry in 2008\textsuperscript{34}. Egypt faced one of the worst cases of avian flu in the world in 2006. Large numbers of poultry were culled and the price of chicken meat dropped substantially. The disease is now endemic in the country. However poultry herds have recovered quickly (the government compensated poultry farmers for their losses), and prices have increased again due to the rising price of maize, which is largely used to feed chickens. The value of poultry production represented around ¼ of the total animal production in 2008 and the country is self-sufficient for eggs and poultry meat.

Some of the main constraints limiting the development of the livestock sector are the poor access to animal health services (government veterinary staff, largely free of charge) with drugs and vaccines against contagious and trans-boundary animal diseases often unavailable, and the lack of private sector (meat-processing companies) interest in improving the infrastructure for meat production, such as slaughterhouses, as imported meat is cheaper than locally-produced meat\textsuperscript{35}.

2.3 – Fisheries

The national fish catch declined in 2005 to about 350,000 tons. However, the government hopes to increase annual production by managing natural fish stocks and encouraging the use of inland lakes and waterways for intensive aquaculture. Aquaculture’s activity is growing, particularly in the governorates of Kafr El Sheikh, Alexandria, Damietta and Port Said, and has contributed to increase fish consumption by the population from 6.9 kg/person in 2000 to 7.9 kg/person in 2005, providing a source of good quality proteins, at a cheaper price than meat.

Oil pollution is threatening coral reefs and marine habitats.

\textsuperscript{32} Demographic and Health Survey (DHS). Egypt. 2008.


\textsuperscript{34} Demographic and Health Survey (DHS). Egypt. 2008.

III - FOOD IMPORTS, MARKET SUPPLY AND PRICES

Some 95% of the local production is consumed domestically, despite increased emphasis on cash crops for export, such as fruits and green beans. At national level, food availability is ensured by complementary imports to the domestic production in order to cover the consumption requirements of the population.

3.1 – Food imports and exports

Egypt is the world’s largest wheat importer, mainly from Russia (over half of the imported amount), the US, Australia, Argentina and Kazakhstan. Some 10 million tonnes of wheat and 5.6 million tonnes of other cereals should be imported for the 2010/11 marketing year. Maize and vegetable oils are the other main food items imported.

Figure 3: Quantity and value of the main food imports in 2008

A large part of the wheat imports is used for the subsidized food system (see paragraphs 4.3.1). The sharp rise in wheat and other food commodities prices will add substantially to the cost of Egyptian imports in 2010/11.

Cotton is Egypt’s major agricultural export and was for many years extensively subsidized. However production and exports have declined due to inconsistent state policy and increasing competition from India and China. Oranges, potatoes, rice, onion, fruit and vegetables are the most significant food exports.

The ratio of exports to food imports, which measures the ability of the country to finance its food imports out of total export revenues, is low in Egypt at 6.9 (lower than in Tunisia and Libya at about 11). Egypt is considered to be among the North African countries most vulnerable to food-price shocks because of the relatively weak fiscal balance to cover the cost, taking into account the large wheat and bread subsidy programme36.

3.2 – Food prices

3.2.1 - Inflation

Inflation soared at an average of 18% in 2008 (with a high of 24% in August 2008) and gradually decelerated to an estimated 11% in 2010 and beginning of 2011. The World Bank estimated a very high pass-through of international food prices to domestic food prices at between 60% and 80%.

Rising food and fuel prices (see Box 2) resumed inflationary pressures early 2011. Food and beverages account for more than 40% of the consumer price index. These inflationary factors will be exacerbated by the depreciation of the Egyptian pound as a result of the political crisis37.

Box 2 – International food prices rise at the end of 2010

The rise on international markets was steep between June 2010 and early 2011, increasing the cost of imported wheat, rice, maize and other grains.

The reasons for the international cereal grain price hike are similar in nature to those of 2008, although the base situation (e.g. production levels, stocks) is different. Some of the key reasons for the price rise in 2010-11 include: wildfires and drought in Russia, supplier of over 10% of world wheat exports, which led the Russian government to ban wheat exports in August 2010; floods in Australia; dry weather in Argentina and the United States and a variety of other weather anomalies that caused extensive damages to grain crops; strong demand for agricultural commodities in emerging economies; and higher oil prices which have led to an increase in the use of maize for ethanol production, in particular in the US.

The price on international markets of other imported commodities, including sugar38 and edible oils, also rose dramatically. Inflation trends suggest that the rise has been passed through to consumer prices. Higher international maize prices are also passed through to consumers indirectly by raising animal feed prices, meat prices, and the price of many processed commodities.


The prices of meat, dairy products, poultry, eggs and fish have increased in the past years owing to the rise of animal feed prices. Nominal wheat prices on the domestic markets increased by 32% in 2010 and rice by 42%39.

Inflation is expected to peak at 15% during the rest of 2011 before slowing gradually to 10% as the exchange rate stabilises and global commodities price ease40.

Figure 4: Consumer prices change (%) 2008-2010


38 The rise in the price of sugar is mostly due to a production shortfall in Brazil, and weather shocks in Australia. Edible oil prices increase are also related to weather shocks, including in Brazil and Argentina which account for approximately 45% of soybean exports, and floods in Malaysia and Indonesia which have hindered palm oil harvests.
3.2.2 – Government food subsidy and price control

Wheat is highly subsidized, with about 80% of the population benefiting from ration cards and every household having access to subsidized bread (see paragraph 4.5.1). Given that the government is the largest buyer of locally-produced wheat (usually about 30% of total production), the government procurement price is the leading one, meaning that other prices in the wheat market move around the government price. Maize is also subsidized (maize flour is mixed with wheat flour at a ratio 1:4). The purchase prices of wheat and maize are comparable to the world market prices, and were thus significantly increased when prices rose in 2008.

The level of subsidies for the food subsidy programme varies according to commodities. For example, by the end of 2008 the government subsidized 75% of the market price of oil, 66% of the price of sugar, and 40% of the price of rice. The subsidies limit private trade in these commodities and eventually contribute to the high food prices in the open market.

As in 2008, the rise of wheat prices in 2010/11 will significantly increase government expenditures for the wheat flour and bread subsidies. However, consumers are not fully exempted from the impact of global rise of prices as prices of non-subsidized wheat products, as well as other basic staples – such as lentils and animal products - have increased.

3.3 – Retail trade and distribution

Food marketing is characterized by a large number of wholesalers and retailers operating mostly at local levels. For locally produced food outside the subsidy system, the private trade is fragmented and disconnected. Although farmers are free to sell their products to anyone, the private trade finds it often difficult to compete with public enterprises. Furthermore, since basic staples are to a large extent provided to the population through the subsidy system, the private trade has to content itself with the “surplus demand.” The bulk of private market food sales consists therefore of vegetables, fruits, and meat products.

Regional markets are believed to be disconnected since traders usually operate only within their locality. The civil disturbances that occurred early 2011 have occasioned losses for the food industry due to the fall of retail prices at that time, but the extent of losses and recovery is unknown. Also, the type and size of businesses with Libya that may be affected by the conflict in this country have not been determined.

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IV - HOUSEHOLD ECONOMIC ACCESS TO FOOD

The share of basic food consumed by households – wheat-based products, vegetable oils, dairy products and meat- that come from own agricultural production is very low (less than 2% at national level and no more than 20% in rural areas). As a result, almost all of the food consumed by households comes from market purchases, and economic access to food is determined by: (i) income levels, (ii) access to other transfers in cash or in kind, and (iii) market prices.

Nationally representative household surveys on income, expenditure and consumption have been regularly conducted in Egypt since 1958. The latest one, in 2008-09, included some 48,660 household observations (2000 households observed for 15 days between April 2008 and March 2009) in both urban and rural areas of all cities and governorates. WFP also conducted food security and vulnerability household surveys in 2005 and 2008, with a particular focus on the role played by the government food subsidy programme.

4.1 – Household poverty and food insecurity

4.1.1 – Levels of poverty and multi-dimensional poverty

Poverty

In the early 2000s, living standards were severely damaged by a protracted economic slump. This was blamed on poor governance, and served to focus attention on deep economic disparities among the population. Rapid economic growth led to a reduction in poverty between 2005 and 2008, from 23% to 19%. However, the latest Household Income, Expenditure and Consumption Survey estimated that 22% of the population was poor in 2008-09, practically the same level as in 2005, possibly reflecting the full impact of the rise of food prices in 2007-08.

Even though overall poverty seemed to have decreased from 2005 to 2008, extreme poverty (inability to meet basic food needs) increased, reaching 6% of the total population. The rise of extreme poverty was limited to rural areas, where it passed from 7% in 2005 to 9% in 2008 (compared to a slight decrease from 4% to 3% in urban areas). This may be due to the fact that the cost of living (based on the Consumer Price Index) rose by 47% for the extreme poor between 2005 and 2008, compared to 28% for the better-off.

Figure 5: Poverty in urban 2005-2007

![Evolution of poverty rates 2005-2008 in urban and rural areas of Egypt](image)


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47 Poverty is defined according to the cost of a minimum food basket of essential food and non-food necessities, which differs according to the location and composition of households. In 2008, the extreme poverty line was 4.5 Egyptian pounds per capita per day (about US$2) and the overall poverty line was 6.1 Egyptian pounds per capita per day (about US$4.3) – Source: CAPMAS - The State of Food Security and Vulnerability in Egypt. Draft (unpublished). April 2011..
Overall poverty reduction during the period 2005-2008 benefited many of those engaged in the agricultural sector, as well as in the construction, transportation and manufacturing private sector despite the mostly informal nature of these occupations. However, inequality was found to have reduced the effect of growth on poverty, with regional disparities persisting. The poorest 40% of households are controlling less than ¼ of total country income.

Rural Upper Egypt continues to be the poorest region, hosting about half of the poor and 2/3 of the extreme poor in 2008, well above its share of ¼ of the total population of the country. Within rural Upper Egypt there are also differences in the prevalence of poverty by governorate, with Sohag and Assiut presenting the highest rates in 2008. Poverty is also expected to be high in slums in urban areas, although no data are available specifically for these locations.

**Figure 6: Evolution of poverty rates 2005-2009**

The majority of the poor (almost 80%) was living in rural areas in 2008. By comparing 2005 with 2008, 10% households were considered to be chronically poor, as their poverty situation did not change during that period. These households were mostly located in rural Upper Egypt, with 23% of the poor in rural Upper Egypt chronically poor, representing 70% of all chronically poor in the country (see Box 3).

**Box 3 – Poverty map in Egypt and the poorest 1000+ villages**

A poverty map for Egypt was designed in 2007 based on 37 indicators at village level, each one reflecting one or more of the economic and social dimensions related to poverty and standards of living: education (e.g. enrolment rates, literacy rate), employment (e.g. unemployment rate, permanent, casual or temporary work), utilities (e.g. safe water, sanitation network, electricity), and demographics (e.g. household size, dependency ratio).

Based on this analysis, the 1000+ poorest villages in Egypt were identified including about 920 in Upper Egypt. Almost half of the population in these villages is considered to be poor and represents about half of the total poor in Egypt. Three governorates in Upper Egypt (Assiut, Menia and Sohag) account for over 80% of the total poor in the poorest 1000+ villages and for over 790 villages.

By 2009, the number of poorest villages had reached 1141 villages, with again almost ¾ of the poor concentrated in the 3 governorates of Assiut, Menia and Sohag. Most of the differences in poverty levels between villages is explained by the unequal distribution of public goods including physical infrastructure (water, sanitation and roads) as well as public services, namely education and health facilities.

*Source: UNDP. Egypt Human Development Report 2010.*

Conversely, about 10% of households moved in and out of poverty between 2005 and 2008, reflecting a high social mobility and the existence of a significant number of households who become transitory poor as a result of individual (e.g. loss of job, sickness) or covariate shocks (e.g. rise of food prices). This large instability was particularly pronounced among those employed in temporary jobs and in the informal sector, mostly among the middle class.

Overall, only 45% of the population in Egypt remained consistently out of poverty between 2005 and 2008, while the remaining 55%, mostly in the middle class, experienced at least one poverty episode.

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Typically, poor households have limited or no access to land, cultivate fragmented land plots (entailing higher production costs), keep a small number of livestock (inter alia due to the cost of animal feed), have little or no education, no marketable skills, limited access to health and other social services and to stable wage employment, and high dependency ratios\(^{51}\).

**Multi-dimensional poverty**

The UNDP Global Human Development Report of 2010 introduced a Multi-dimensional Poverty Index (MPI) which combines different levels of deprivations to complement income-based poverty estimations. Considering data available from the 2008-09 Household Income, Expenditure and Consumption Survey, an MPI was constructed for Egypt combining assets ownership, type of sanitation facilities, source of water, access to electricity, type of cooking fuel, housing wall material, enrolment of children at primary school and years of schooling\(^{52}\). On this basis, 12% of the population was considered to be deprived in at least 3 out of the 8 non-income poverty dimensions.

Overall, the prevalence of income poverty is higher than the prevalence of deprivation in other dimensions except in Cairo and Alexandria, and in the urban areas of Qualiobia, Gabeyya, Giza and Red Sea governorates where the level of poverty is lower or similar to the level of non-income deprivation.

**Figure 7: prevalence of poverty**

![Prevalence of poverty (income) and multi-dimensional (non-income) poverty in Egypt](image)

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**4.1.2 – Levels of vulnerability to food insecurity**

The criteria used to define vulnerability to food insecurity in the 2005 and 2008 WFP household surveys are summarized in Box 4.

**Box 4 – Criteria for household vulnerability to food insecurity in the 2005 and 2008 WFP surveys**

Household vulnerability to food insecurity was determined by combining:

- household head education level
- per capita food expenditures during the previous 7 days
- per capita income
- per capita asset ownership.

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\(^{52}\) Source of water and type of sanitation facilities according to standard definitions - Assets: considered ‘deprived’ if do not own more than one of: radio, television, telephone, bicycle or motorbike - Years of schooling: considered ‘deprived’ if no household member has completed 5 years of schooling – Child enrolment: considered ‘deprived’ if any school-aged child is out of primary school (years 1 to 8).
These factors were considered to be related to: (i) demographic characteristics, (ii) location, (iii) education of the head of household, (iv) access to social assistance, (v) household income, (vi) ownership of agricultural land, and (vii) ownership of productive assets.

To determine the vulnerability rates in different governorates, the household vulnerability criteria above were complemented by:

- access to cash transfers (see paragraph 4.3.1)
- food consumption patterns, based on the Food Consumption Score\(^{53}\)


About 1/5\(^{th}\) of households in Upper Egypt, Lower Egypt and metropolitan areas were considered highly vulnerable to food insecurity in 2008. The highest proportions of vulnerable households were found in the rural areas of Upper Egypt governorates - particularly Sohag (31%), Minia (26%), Giza (24%) and Assiut (21%), in the governorate of Alexandria (24%) in the metropolitan area, and in the governorate of Dakahlia (21%) in Lower Egypt. According to a parallel study by the World Bank in 2008, the governorates of Sohag, Minia, Assiut and Fayoum in Upper Egypt presented the highest proportions of households vulnerable to food insecurity (between 32%-39\(^{\circ}\))\(^{54}\).

A previous study conducted by WFP in 2005 using the same vulnerability criteria had found higher levels of vulnerability to food insecurity in Assiut (25%), Beni Suef (20%) and Sohag (17%) in Upper Egypt\(^{55}\).

The persistence of vulnerability to food insecurity among some households and areas between 2005 and 2008 despite economic growth was attributed to the increase in food prices, deterioration of employment and income-generating opportunities (particularly in rural areas) and loss of productive assets, including from the avian flu epidemics in 2006.

4.1.3 – Levels of dietary energy deprivation

Households interviewed in the Household Income, Expenditure and Consumption (HIEC) survey fill in a food diary during 15 days to record the amounts of food consumed from purchase and from own production. On this basis, the average dietary energy intake per capita and the level of kilocalorie deprivation can be estimated. About 1/5 of the population, including 22% in rural areas and 17% in urban areas, were deemed to be dietary energy-deprived in 2008-09, i.e. consuming less than their average daily kilocalorie requirements\(^{56}\).

The prevalence of dietary energy deprivation varied widely across governorates, with the highest in Assiut (50\%), followed by Giza and Beni Suef in Upper Egypt, and Menoufia in Lower Egypt (over 30\%).

The average dietary energy consumption was 2780 kilocalories per capita per day, slightly lower in rural than urban areas: 2880 and 2720 kilocalories per capita respectively. The average daily kilocalorie intake was below 2500 in Assiut, Fayoum, Beni Suef governorates (both urban and rural areas), and in rural areas of Giza, Ismailia, Menoufia and Red Sea governorates. It was just above 2500 kilocalories in Sohag governorate and in urban areas of Giza and Red Sea governorates.

The prevalence of low dietary energy intake (in proportion of the population) and low average dietary intake (in kilocalories per capita) were both higher in large households (more than 7 members), households with an illiterate or below secondary-level head of household, income-poor households (70\% of the kilocalorie intake of wealthier households, at 1730 kilocalories per capita) and households facing other deprivations including absence of health or social insurance and low standards of living (source of water, sanitation, housing conditions and assets ownership).

\(^{53}\) The Food Consumption Score evaluates the quality of food consumption patterns at household level by estimating the frequency and diversity of consumption of food items during the 7 days preceding the survey.


\(^{55}\) WFP. Vulnerability Analysis and Review of Food Subsidy in Egypt. October 2005.

\(^{56}\) The average daily kilocalorie requirement was determined according to FAO/WHO references for individuals by sex and age, and the average composition of households surveyed – Source: Central Agency for Public Mobilization and Statistics (CAPMAS). The State of Food Security and Vulnerability in Egypt. Draft (unpublished). April 2011.
An attempt was made to estimate the diversity of food consumption from the number of different food items consumed within 8 food groups during the 15-day record period. This approach is different from the WFP Food Consumption Score which attempts to capture the quality of the diet from the frequency and diversity of food groups consumed during the 7 days preceding the survey. The HIEC approach is less likely to capture the diversity of the diet because over 15 days most households are consuming at least once a food item within each food group but the frequency of consumption is not measured. The consumption of various food items within the same food groups may indicate a more frequent consumption overall but further field testing would be necessary to check the extent to which it is the case.

4.1.4 – Prevalence of food insecurity on the basis of poverty and dietary energy deprivation

Overall, 11% of households cumulated income-poverty with dietary energy deprivation, including 5% in urban areas and 14% in rural areas. These households can be considered severely food-insecure from both dimensions of kilocalorie intake (as proxy for food consumption adequacy) and economic access to food.

At national level, poverty is closely associated with dietary energy deprivation. At city and governorate level, the relationship between poverty and dietary energy deprivation is less consistent. In the cities of Cairo and Alexandria, poverty rates are low but levels of energy deprivation comparatively high, possibly due to the high levels of non-food expenses in urban areas, in particular for transportation and housing which may divert part of the resources away from food purchases. In the governorates of Assiut, Sohag, Qena and especially in Aswan and North Sinai, poverty rates are higher than the levels of dietary energy deprivation. This may be due to a higher share of food consumed coming from own production in these areas, enabling a relatively better diet despite a low income.

**Figure 8: Prevalence of poverty and dietary energy deprivation**

![Prevalence of poverty and dietary energy deprivation by governorate in 2001-09](image)

The “worse off” governorates combining high levels of poverty and dietary energy deprivation in 2008-09 were, more or less by decreasing order: Assiut, Beni Suef, Sohag, Fayoum, Giza, Menoufia, Qena and Menia.

4.2 – Food expenditures

In rural areas, where most of the poor live, the majority of households are net food buyers, with own production amounting to less than 20% of total consumption. Food expenditures of rural households represented about 2/3 of total expenditures before the rise of food prices in 2008. The 2008-09 Household Income, Expenditure and Consumption survey found that the share of food expenditures was 44% on average, rising to 53% among the poorest decile compared to 33% among the wealthiest decile.

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absence of concomitant adjustment of income, the rise of food prices is thus likely to impact more severely
the poor than the non-poor, especially those outside the food subsidy programme (see paragraph 4.5.1).
Poor and vulnerable households also spend less in absolute amount of food expenditures, than other
households.

The WFP 2008 study of the food subsidy system found that food represented the majority (almost 80%) of
expenditures after all subsidies for food and non-food items (housing, cooking gas, electricity, water) were
considered. This is because even households benefiting from the subsidized food rations have to purchase
additional amounts of commodities (e.g. sugar, oil) and complementary foods which are more expensive
(e.g. vegetables, fruits, animal products). In some cases, lower amounts of subsidized food items are also
being accessed either because the quality is low (subsidized bread) or because they are not available or the
time to be spent at shops to collect them is excessive (long queues).

4.3 – Employment, income sources and savings and loans

4.3.1 – Employment and sources of income

The labour force amounted to 26.1 million in 2010, including about 24% women. Unemployment is officially
estimated at about 10%, relatively stable over the past years. The quantity and
type of jobs have only weakly responded to economic growth, and the expansion of employment barely
matched the number of new entrants in the labour market. Furthermore, the true unemployment rate is likely
to be much higher, at around 15%-25%. Unemployment among graduates is considered to be even greater,
at almost 40% for men and over 50% for women (see Box 5). Under-employment is estimated to affect
between 1/3 and ½ of all workers.

Box 5 – Unemployment among young people in Egypt

Unemployment among young people is deemed one of the biggest challenges faced by the government. The youth bulge
is a major contributing factor since it has doubled the annual number of new entrants to the labour force over the past 2
decades. The rate of decline in the number of youth entering the job market in the longer term will depend on the rate of
fertility decline.

Equally problematic is the mismatch between employment opportunities, education and skill formation. Type and level of
education matter in the search for jobs, with university and technical education graduates at the greatest disadvantage,
requiring a serious review of educational standards, quality and relevance.

For the numerous young people who remain illiterate or drop out of basic education, the need is to improve access to the
foundation of education, by targeting poor and rural areas specifically, with special attention given to girls.


At national level, about 1/3 of the labour force is engaged in agricultural activities, and half in services (public
sector and tourism mainly), with less than 20% working in the industry sector. In 2006/07, an estimated
2.5 million jobs depended directly and indirectly on tourism (around 10% of the labour force), and around
5 million were employed in the public sector (about 20% of the labour force).

Almost half of the labour force is believed to be involved in the large informal sector, with an even higher
share among the youth (70% working in informal employment). Households often combine several income-
earning occupations. In rural areas, agricultural activities are the main source of work, complemented by
some construction work, petty trade and government employment. The winter months from November to
January are considered lean times because agricultural activities are limited and there are few alternative
income-generating activities.

63 EIU. Egypt Country Profile. 2008.
64 CIA. Egypt Country Profile. March 2011 – According to FAO data, the share of the labour force in agriculture was
lower in 2007, at 28%.
65 Central Agency for Public Mobilization and Statistics (CAPMAS) – Quoted in: IOM. Intra-Regional Labour Mobility in
the Arab World. 2010.
In urban areas, government and public services employment is more frequent, as well as trade and independent occupations\(^\text{66}\). Seasonality is less important for employment, but there are periods of higher expenses such as at the beginning of the school year or for religious events such as Ramadan (the same happens, however, in rural areas).

In 2008, the number of poor people was the highest among those engaged in the construction sector, followed by those working in agriculture (the order was opposite in 2005). Both sectors employ mostly an unskilled labour force, in informal and irregular types of employment, explaining the higher incidence of poverty compared to other sectors\(^\text{67}\).

The 2008 WFP vulnerability survey\(^\text{68}\) showed that households which depended on regular and stable sources of income such as government and public service employees, were less likely to be vulnerable, or to have become vulnerable since 2005\(^\text{69}\), compared to households relying on casual and unskilled work. Less vulnerable households were also more likely to have experienced a rise of their income over the previous years, while vulnerable households had suffered a decrease of income due to illness, price increase, unemployment or the death of an income earner. Unemployment of the household head was the most significant factor contributing to the permanence (versus change) of vulnerability over the years. Illiteracy of the head of household and other members was also associated with remaining vulnerable over time.

Similarly, a fall into poverty between 2005 and 2008 was strongly linked to holding an occasional job compared to a permanent one. A deterioration was noted particularly for women, whose share of seasonal or occasional jobs doubled from 18% in 2005 to 39% in 2008. Generally speaking, women face more constraints to access stable jobs and are paid less than men for similar occupations\(^\text{70}\).

The most frequent coping strategies of vulnerable households in the event of shocks such as the rise of food prices were the withdrawal of children from school so that they could contribute to income-earning, collection of natural resources over sustainable levels, sale of land or livestock at low price, and decrease of food consumption. Taking up loans is also common, despite high interest rates (see below).

Successive budgets have raised public sector wages and pensions, but they have seldom exceeded the rate of inflation. Private sector jobs are better paid but limited in number. The government raised the public sector basic wages by 30% and pensions by 20% to compensate for the high food prices in 2008. In response to the civil protests early 2011, the government announced an increase of salaries by 15%. Casual workers have faced partial income losses for some weeks during the events early 2011.

**4.3.2 – Savings and loans**

The WFP vulnerability study of 2005 found that savings are infrequent and generally low, while loans are widespread (40% of households in rural areas of Upper and Lower Egypt and Metropolitan Governorates). The number of financial institutions has increased but interest rates remain high and the need for collateral or guarantor limits access for households with few resources. As a result, many resort to money lenders who apply very high interest rates (50%-120%). Relatives and friends, and traders, are also important sources of loans. The main purpose of these loans is consumption rather than business or productive investment\(^\text{71}\).

**4.4 – Migration and remittances**

**4.4.1 – General characteristics of migration in Egypt**

By 2010, there was an estimated 2.7 million Egyptian migrants abroad. Among Arab countries, Egypt has been the largest labour-exporting countries to Arab Gulf countries, sending about 10% of the labour force

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\(^{68}\) WFP. Vulnerability Analysis and Review of the Food Subsidy Programme in Egypt. October 2008.

\(^{69}\) Some 3,338 households already surveyed in 2005 were interviewed again in 2008.

\(^{70}\) WFP. Vulnerability Analysis and Review of Food Subsidy in Egypt. October 2005.

\(^{71}\) WFP. Vulnerability Analysis and Review of Food Subsidy in Egypt. October 2005.
(79% of all migrants). Egyptian migrants to the Arab Gulf countries are mainly educated skilled workers, while uneducated or little-educated workers rather migrate to Jordan and Lebanon\textsuperscript{72}.

Remittances have increased linked to the rise of the price of oil and larger transfers sent by migrants in Arab Gulf countries, reaching about US$8 billion in 2009, an amount close to the level of foreign direct investment and representing approximately 5% of GDP\textsuperscript{73}.

Unemployment, especially among the youth, is one of the major push factors for migrants, internally and externally. Many go to urban areas looking for work in construction or tourism, but those who can afford the travel costs opt for external migration, particularly to Arab Gulf countries. In this respect, worker out-migration from Egypt shares many characteristics of similar movements in neighbouring countries. Some of these key characteristics are summarized in Box 6.

**Box 6 – Key features of migration from and to Arab Gulf Countries**

- The majority of migrants from the Arab Gulf countries are young, adult males from rural areas. The remittance flows from these migrants have contributed positively to reducing poverty and local unemployment in these areas. Sending countries, however, have not been successful in establishing well-organized institutional frameworks to mobilize remittances effectively for saving and investment purposes.

- Gains from the remuneration of workers abroad in Arab countries represent a bigger source of revenue from North East African countries than trade among these countries. Under a financial point of view, labour-exporting countries in the region benefit more from “exporting” skilled and unskilled workers to countries in the region, than from exports in goods and services. Migration contributes to the circulation of financial capital in terms of remittances, as well as any social and human capital that migrants acquire during their migration experience.

- In migrant-sending countries, the young represent a high proportion of the working-age population. This “youth bulge” poses 2 major challenges to societies and economies: 1) education systems find it difficult to accommodate the increasing number of students, especially in higher and vocational education; and 2) labour markets cannot generate enough job opportunities to absorb unemployed workers and new entrants at the same time. Migration dynamics are a direct result of the interplay of these 2 factors.

- Migration-restrictive policies in Arab countries result in only migrants with high qualifications being able to find employment abroad. This causes a significant brain drain for countries of origin.

*Source: International Organization for Migration (IOM). Intra-Regional Labour Mobility in the Arab World. 2010.*

A 2003 IOM study\textsuperscript{74} showed that about \(\frac{3}{4}\) of Egyptian households receiving remittances from migrants spent the largest share of funds on daily household expenses, followed by housing (purchase, construction or renovation) and education. A 2002 UNDP study indicated that households receiving remittances had a relatively higher standard of living and ability to meet basic needs than households who do not, including food, rent payment, medical expenses, clothing, and education. Poverty incidence among remittance-receiving households was far lower (11% versus 21%). They were less dependent on community social networks and resorted less frequently to credit or debt as a coping strategy to respond to difficulties, compared to other households.

A more recent IOM review of households of migrants in 4 governorates in Egypt indicated that the large majority (80%) were using the remittances to meet family daily needs, including health care and education expenditures. Among the 20% of households who invested the money, almost 40% invested in real estate, and 20% in small businesses (less than 5 employees)\textsuperscript{75}. The study also found that 2/3 of migrant households were headed by a woman in the absence of the male migrant, and for these households remittances accounted for more than 40% of their total income.

4.4.2 - Egyptian migrants in Libya

Libya ranked on top of the list of destinations of Egyptian migrants as a result of geographical proximity and visa facilities. Despite restrictive measures introduced in 2007 that imposed a visa regime on migrants, Libyan authorities allowed citizens of the Maghreb countries to stay for 3 months in Libya while seeking

\textsuperscript{72} IOM. Intra-Regional Labour Mobility in the Arab World. 2010.

\textsuperscript{73} IOM. Migration and Development in Egypt. March 2011.

\textsuperscript{74} Quote in: IOM. Intra-Regional Labour Mobility in the Arab World. 2010.

\textsuperscript{75} IOM. A Study on Remittances and Investment Opportunities for Egyptian Migrants, 2010. Quote in: IOM. Migration and Development in Egypt. March 2011
employment. Libya has been particularly attractive to the youth, with 38% of young migrants moving to Libya, followed by 29% to Saudi Arabia\textsuperscript{76}.

Official sources estimate that between 300,000 and 1.5 million Egyptians worked in Libya before the current crisis, with a large concentration in Benghazi\textsuperscript{77}. These migrants were sending between US$19.5 and 33 million in remittances every year. These figures are probably on the low side as many migrants may prefer to send money back through informal channels.

By mid-April 2011, an estimated 200,000 Egyptian workers in Libya had returned to Egypt due to the conflict outbreak. Many are believed to move to rural areas of Lower Egypt and Upper Egypt, in their regions of origin. A WFP/UNICEF assessment mission at the end of March 2011 found that around 90,000 migrants had come back from Libya to Assiut and Sohag governorates in Upper Egypt, a high poverty region, without bringing back cash or belongings. The return of large numbers of migrants was also putting pressure on markets, with demand for subsidized food higher than the offer. Households of returned migrants were dedicating $\frac{3}{4}$ of their expenditures to food\textsuperscript{78}.

### 4.5 – Social assistance programmes

#### 4.5.1 – Government subsidies and social assistance programmes

Much of the Egyptian economy revolves around a cheap workforce, a situation which relies critically upon the large subsidies for all basic needs (food, energy, water, housing, health expenses etc.) for the urban and rural working classes. De facto, the government subsidizes wages through the subsidy system. When compared to basic salaries, the government subsidies were estimated to add about 60% for an average household\textsuperscript{79}. Clearly, the subsidies and other social assistance play an even more important role for the unemployed.

**Energy, housing and water subsidies**

Fuel subsidies were gradually reduced from 2006. However, natural gas, electricity and water remain heavily subsidized. Leakages are an issue, as the most vulnerable households tend to receive a smaller share of the benefits than the least vulnerable because of their lower consumption\textsuperscript{80}. Housing is also subsidized but the proportion of households benefitting from Popular or Common housing seems low (6% households in the 2005 WFP study).

Energy subsidies represent a significant share of the government budget and averaged more than 6% of GDP during the period 2005-08. The rise of oil prices in 2010/11 is expected to further increase government expenditures on this item.

**Food subsidies**

The food subsidy system is the main safety net programme in terms of cost and coverage. It comprises:

- ration cards that offer to all households\textsuperscript{81} a pre-determined monthly quota of rice, sugar, oil and tea, according to the number of household members; and
- subsidized bread (balady), available to everyone.

The system was instituted in 1941 and underwent several changes throughout the years, with the view to reduce costs and improve the quality of subsidized bread. The domestic economic context influenced the scope of the reforms and various reversals took place following popular reactions\textsuperscript{82}.

The latest modifications took place in response to the 2007/08 food price rise. In addition to increasing funding for bread subsidy, the government:

\textsuperscript{76} IOM. Egyptian Migration to Libya. March 2011.
\textsuperscript{77} Inter-Agency Assessment Mission to Sallum Border Post Egyptian-Libyan Border. 24-27 February 2011.
\textsuperscript{78} WFP. Operational Brief North Africa Crisis. 7 April 2011.
\textsuperscript{79} WFP. Marketing of Food in Egypt. Food Subsidies, Social and Economic Considerations. October 2008.
\textsuperscript{80} WFP. Vulnerability Analysis and Review of the Food Subsidy Programme in Egypt. October 2008.
\textsuperscript{81} Every Egyptian household is eligible to obtain either a full or partial ration card.
\textsuperscript{82} WFP. Analysis of Consumer Profile and Behaviour. Patterns of Food Subsidy Recipients. An Approach to Targeting. April 2010.
• increased the number of people entitled to a ration card, reaching an additional 22 million beneficiaries (those born after 198983) on top of the 40 million already registered by May 2008 (with no change in the total number of households holding a ration card);
• doubled the amount of rice entitled at subsidized price through the ration card;
• removed items such as beans, lentils and pasta;
• unified the ration card system with only one card providing full benefits, instead of two (one for full benefits and one for partial benefits);
• expanded its small cash transfer programme; and
• banned rice exports.

Almost 80% of households in Egypt possessed a ration card in 2008, the majority entitled to the full allocation84. Ration card commodities are purchased at special Tamween shops while subsidized bread is sold at local bakeries, distribution outlets, town councils and Community Development Associations.

For the most vulnerable households, the amounts of food authorised in the ration card at subsidized price at the end of 2008 were estimated to cover about half of wheat flour consumption requirements, 40% of rice requirements, 73% of oil requirements and 60% of sugar requirements. Similar results, though a bit higher, were found in another WFP study of ration card and social assistance beneficiaries at the end of 2009 in the poorest governorates (53% for rice, 77% for oil and 63% for sugar)85. Beneficiaries also reported that the preferred commodity on the ration card was sugar (64% of households), followed by vegetable oil and rice (16%-20%). However, less than half of the households found that the amounts were sufficient. The level of coverage of consumption requirements depends from the actual household size, with vulnerable and rural households usually having larger families than non-vulnerable and urban households (not all may be registered on the card)86.

The average subsidy level was 74% of the market price, representing a relatively low cash value of about 1/4 of total food expenditures for an average 4-member household. This is due to the fact that households make complementary purchase of more expensive items such as vegetables and animal products, additional amounts of sugar and cooking oil, and better quality bread.

According to the 2008 WFP study, households most vulnerable to food insecurity received almost 30% of total food benefits, while the least vulnerable households received 11% of the transfers. This is because the diet of poor households includes more of the staple of the ration card than the diet of less needy households. In addition, vulnerable households tend to access the full amounts allocated in their ration87 and a higher number of balady bread loaves than less vulnerable households, although distance to points-of-sale, long queues and cash available to purchase the whole quantities are sometimes problematic for the poorest. The 2009 WFP study reported that lack of cash was the main reason for not buying the full amount for about 2/3 of households who did not buy the full amounts of sugar or vegetable oil, and half who did not buy all the amount of rice.

Almost 80% of households interviewed in urban areas and 65% in rural areas were purchasing balady bread88. Some of the difficulties regarding access to subsidized bread (availability and queuing), particularly in rural areas, were addressed by a government decision in 2008 to separate production from distribution processes. Bread which is not consumed was either re-sold (in urban areas) or fed to animals (mostly in rural areas). Other reasons for not purchasing more balady bread were low quality or preference for home-made bread. About ¼ of urban households and over 40% of rural households reported that the quantities of subsidized bread available for sale were insufficient. A maximum is generally applied by distributors (on average 24 loaves per person in urban areas and 17 loaves in rural areas).

83 Registration of household members on the ration card had been halted in 1989.
84 In 2005, holders of a partial ration card tended to be urban, engaged in business, or owning more than 5 feddans of land.
87 A WFP survey undertaken at the end of 2009 in selected governorates and Cairo city indicated that a minority of Tamween shop owners request consumers to purchase the full amounts of the rationed commodities – Source: WFP. Analysis of Consumer Profile and Behaviour. Patterns of Food Subsidy Recipients. An Approach to Targeting. April 2010.
88 In a few governorates, such as Matrouh, the government distributes subsidized flour instead of bread, which is then baked at home.
The 2005, 2008 and 2009 WFP studies showed that a high proportion of ration card holders belonged to the least vulnerable or poor. An estimated ¼ of the households most vulnerable to food insecurity and 15%-20% of the poor were excluded from the programme due to the lack of documentation required for registration to obtain a ration card, such as getting a national identification number. This situation, in turn, is often related to work in the informal sector and to illiteracy. Weak targeting is also shown by the discrepancy between poverty rates and the proportion of ration card holders at governorate level.

Issues of corruption, with subsidized commodities being sold on the free market and higher prices charged to consumers, have also been reported. The 2009 WFP study of food subsidy recipients, balady bread producers and distributors, and Tamween shop owners indicated that beneficiaries were less likely to purchase the full amounts of rice and tea than sugar and oil (the preferred commodities), and some amounts of rice and tea were left unsold in shops at the end of the month. The study also found that the price of subsidized bread is sometimes increased by the practice of paying a fee to get the bread delivered at home and thus avoid the long queues, and by the packaging practiced by some outlets, including from the public distribution system.

Finally, although access to subsidized food contributes to a significant share of food consumption and purchase of poor and vulnerable households, the low amount of the subsidy (in cash equivalent) is insufficient to lift beneficiary households out of poverty and vulnerability.

The rise of international food prices in 2007/08 resulted in an increase of about 140% of the cost of food imports for the food subsidy system. The cost of the food subsidy programme represented 2% of GDP in 2009. A large increase can also be expected in 2011 given the resumption of high food (and energy) prices.

**Cash transfers**

The government also contributes to pension funds and implements cash transfers through 3 mechanisms:

- Monthly Assistance Plan and Pension Plan: social solidarity pensions for special categories of vulnerable persons such as orphans, widows, divorcees and their children, and families of prison convicts;
- Child Pension for children below 18 years of age in vulnerable families and scholarship for students in families benefitting from the Monthly Assistance Plan, Pension Plan or Child Pension;
- One-Time Assistance Plan, Disaster Relief Assistance Plan and Drought and Desertification Assistance: temporary assistance fund for pregnant women, persons with partial disabilities, emergencies (e.g. medical expenses, school fees, natural disasters, crop failure); and fund for families of former low-income government employees, covering emergency payments (e.g. medical expenses, school fees, marriage).

However, the 2008 WFP study showed that only 20% of the most vulnerable households benefited from any social assistance transfers and the 2008 World Bank study found that only 12% of the poor benefited. According to the subsequent survey undertaken end 2009 in selected poor governorates, while a majority of extreme poor would benefit from social assistance transfers (86%), only about 1/5 of the poor would benefit. This result is also shown by the discrepancy between poverty rates and the proportion of social assistance beneficiaries at governorate level. Overall, it seems that the social assistance transfers do target properly the poorest but leave aside a number of them.

Furthermore, despite having increased substantially over the year, the amount of cash transferred through these various programmes is low and deemed insufficient to lift beneficiary households out of poverty and vulnerability. In 2008-09, the average amount of social cash support received per beneficiary represented 68% of the extreme poverty line and 51% of the poverty line on a household basis, and only 14% of the extreme poverty line and 10% of the poverty line on an individual basis (assuming an average 5-member household). Almost half of the social assistance beneficiaries interviewed in 2009 indicated that they relied on charity and gifts from others as their main sources of complementary cash.

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4.5.2 – School feeding programme

The Government is implementing a National School Feeding program covering about 5.5 million children out of a total 12 million eligible children in the country’s public schools. WFP is collaborating with the government to implement a pre-school and primary school feeding programme (fortified date bars) for more than 300,000 vulnerable children in 9 governorates. The fortified date bars meet 20%-25% of children’s nutritional requirements during the school year. In addition, the programme distributes monthly Take-Home Rations consisting of cereals (rice/wheat flour) to families of students enrolled in non-formal primary schools based on their attendance, to encourage enrolment of children, especially girls, and to reduce drop-out rates. Take-Home Rations are distributed to more than 30,000 poor students and their families in vulnerable areas.

The government has requested WFP’s assistance to enhance the efficiency and coverage of the national school feeding program. In addition, WFP is planning to expand its coverage of vulnerable communities as a response to the recent political and economic situation in the country.

4.5.3 – Other social assistance programmes

In rural areas, Community Development Associations seem to exist in numerous villages but are rarely active. Those operational would provide kindergarten services and distribute in-kind and cash support to poor households. The most successful appear to be affiliated to the Social Fund for Development and also authorize loans and training for micro- and small enterprises.

Informal safety nets also exist but more often in urban areas, through religious institutions (mosques, churches) and some community-based organisations. There is no information on their coverage, activities and impact92, but their importance for the poor is manifested by the large proportion of social assistance beneficiaries relying on this type of support to obtain complementary cash.

The government provides a social insurance scheme for public service employees in formal jobs, but none for casual workers and private sector workers. Even the government insurance scheme is considered expensive and not providing a sufficient level of aid to its members93.

4.5.4 – Perspectives for social assistance programmes

By the year 2009, the government spent about 6% of the budget on food subsidies. Food subsidies represented 18% of all subsidy and assistance expenditures (14% for bread and 4% for ration cards), with energy subsidies comprising the largest amount (73%) and cash transfers the lowest (2%). The limited effectiveness of the social assistance system stems principally from its weak targeting and low level of benefits.

The 2008 WFP study and subsequent missions in the framework of the high food price crisis made a number of recommendations to improve targeting and impact of the social assistance system on reducing poverty, food insecurity and vulnerability, such as:

- refining the targeting mechanism, possibly through proxy means testing and refinement of geographical targeting (15%-20% of the poor are believed to be excluded);
- altering the mix of commodities to better target those consumed by the poorest and most vulnerable and to take nutritional issues into considerations (see paragraph 5.2.2), particularly regarding overweight and its linkages with the consumption of calorie-dense food such as fat and sugar; and
- simplifying the registration procedures.

However, while these suggestions should decrease exclusion errors, the issue of inclusion error is more delicate to handle, since the various subsidies (food and non-food) contribute to a significant share of an average household budget (estimated at 60% of a base government salary). Hence improving and gradually replacing the subsidy system by a different way to support livelihoods should be considered alongside better targeting. Savings on expenditures for subsidies could be used other sectors where resources may have a greater and more long-lasting effect on food security, such as job creation (e.g. through public works in the

short-term), improvement of agricultural productivity (e.g. through better extension services and use of inputs including water), adult literacy, vocational training for the unemployed youth, adapted credit mechanisms, and upgraded water and sanitation systems.

Despite the limitations of the food subsidies programme, households surveyed both in 2008 and in 2009 expressed a preference to the continuation of the food-based ration card transfer with some improvement in the quality of the food items and a more flexible commodity mix, rather than a switch to a cash transfer. In a context of fragmented markets, cash transfers may also lead to rapid price increase\textsuperscript{94}. The relatively high inflation rate, mostly driven by food price increases, also argues against switching for cash transfers as the amount of cash would need to be substantially increased at frequent intervals to guarantee the same access to food commodities as granted by the subsidized system.

Tailoring commodities according to regional taste and preferences and to the nutritional requirements of specific individuals such as children, was suggested instead. In the 2009 survey, the majority of ration card beneficiaries did not wish any commodity to be removed from the ration card. Between 20%-25% proposed to remove the tea which many found of poor quality (bad taste). Close to 20% proposed to include pasta and almost 30% lentils\textsuperscript{95}. The latter commodities were part of previous versions of the ration card, but complaints about their quality had been frequent at the time.

Similarly, households in their vast majority did not wish the subsidized bread system to be replaced by a cash transfer. However, considering the widespread perception of low quality and distribution points’ access difficulties, particularly in rural areas, many households (44% in urban areas and 62% in rural areas in 2009) supported the replacement of non-targeted bread subsidies by targeted subsidized wheat flour in the ration card. The production of an additional, higher quality subsidized \textit{balady} bread, offered at a slightly higher price, was also proposed to satisfy demand from low income - but not extreme poor - households.

Besides the food subsidy system, recommendations were also made to set up a more comprehensive, better coordinated social assistance system addressing both immediate, short-term requirements and longer-term needs (see Box 7).

\begin{boxedminipage}{0.97\textwidth}
\textbf{Box 7 – Short- and long-term social assistance interventions suggested in Egypt}

Short-term interventions to address poverty and food insecurity would aim at:

- improving nutritional status by: (i) expanding wheat flour fortification activities and including fortified wheat flour and oil in the ration card; and (ii) revising the commodity mix to decrease the amount of calorie-dense items (e.g. sugar) and substitute with (good quality) lentils for example, and reduce the size of subsidized bread;
- increasing the size of the cash transfer under the government social assistance system;
- encouraging attendance to school and improving education outcomes through the school feeding programme.

The following long-term actions were suggested to set up a comprehensive social protection, focusing particularly on Upper Egypt, the poorest region of the country:

- risks management strategy for livelihoods and agriculture including risk reduction, mitigation and response;
- productive safety nets for able-bodies chronically poor households;
- unconditional transfers to the most vulnerable and destitute individuals.

\textit{Source: WFP. Vulnerability Analysis and Review of the Food Subsidy Programme in Egypt. October 2008.}
\end{boxedminipage}

\textsuperscript{94} WFP. Marketing of Food in Egypt. Food Subsidies, Social and Economic Considerations. October 2008.
\textsuperscript{95} WFP. Analysis of Consumer Profile and Behaviour. Patterns of Food Subsidy Recipients. An Approach to Targeting. April 2010.
V - HOUSEHOLD FOOD CONSUMPTION AND UTILIZATION

Food utilization, manifested in the nutritional status of individuals, is influenced by the quantity and quality of food consumed, the health status and care practices. These, in turn, reflect household food access as well as broader public health services, water, sanitation, housing, education and socio-cultural factors.

5.1 - Food consumption patterns

Based on FAO Food Balance Sheet calculations, the average dietary energy supply (reflecting ‘apparent’ food availability) was 3330 kilocalories per person per day in 2008. The 2008-09 Household Income, Expenditure and Consumption survey estimated the actual dietary energy intake at 2780 kilocalorie per capita per day, based on the amount of food purchased by households during a 15-day reference period. The level of kilocalorie intake was lower among income-poor households (by 30%) compared to the wealthiest.

Figure 9: the average dietary energy supply

![Diagram showing the average dietary energy supply in 2008](source: CAPMAS - Household Income, Expenditure and Consumption Survey 2008-09)

The average diet is dominated by cereals (bread representing the largest share, often made of mixed wheat and maize flour), vegetable oil and sweetened tea, with infrequent and seasonal consumption of vegetables and fruits, and relatively low consumption of meat and dairy products, although these are increasing. This pattern reflects the cheap access to staples through the subsidy programme. Wealthier households are better able to complement the subsidized food with fresh products bought at market price. In rural areas, the relatively high market price of animal food also encourages sales rather than self-consumption.

According to the 24-hour recall applied in the 2008 Egypt Demographic and Health Survey (DHS), most women had consumed cereals, animal products (meat, fish, eggs), and fats, but 1/3 had not eaten any dairy products. Women in the wealthiest quintile were more likely to have consumed dairy products, fruits and vegetables, and twice as likely to have eaten sugary food compared to the poorest women.

The 2008 WFP vulnerability survey also found that poor households mainly consumed cereals and pulses with very little amounts of meat, dairy products and fruits (more expensive items). Generally speaking, households’ consumption of animal food and vegetables decreased between 2005 and 2008, possibly reflecting the rise of prices. No significant differences were observed across geographical locations or between urban and rural areas, indicating that the dietary pattern was more linked to economic access at household level than to other conditions at local level.

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97 Demographic and Health Survey (DHS). Egypt. 2008.
98 Generally speaking, Egyptians are heavy sweetened tea drinkers.
Overall, the prevailing dietary pattern, framed by the access to cheap energy-dense food through the subsidy system, is favouring overweight and obesity by providing excess calories and insufficient micronutrients. This is particularly the case for population groups whose physical exercise is reduced (e.g. in urban areas) and for young children and adolescents who are particularly prone to accumulate weight at specific times during the growth period.

5.2 - Nutritional status

5.2.1 – Prevalence of stunting and wasting among under-5 children

The 2008 DHS indicated that 7% of children under 5 years of age were wasted and 29% stunted, including 14% severely. Results showed a deterioration compared to 2005 (5% wasted and 23% stunted). One of the possible reasons given for this was the sharp decrease of consumption of chicken meat and eggs due to the avian flu outbreak in 2006, given the importance of animal food for growth and loss of income for many households that may have affected access to food in general.

Figure 10: Evolution of prevalence of stunting and wasting 2000-2008

In 2008, children in the Urban Governorates were more likely to be wasted (10%), possibly due to the higher rate of infectious diseases such as diarrhoea, itself linked to unsafe water and inadequate sanitation system (see paragraph 5.5). Children in rural areas were more frequently stunted than urban children (30% versus 27%). Stunting was also more prevalent in urban Lower Egypt (39%).

Figure 11: Prevalence of stunting and wasting by region 2008

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100 Demographic and Health Survey (DHS), Egypt. 2008.
101 Weight-for-height below -2 standard deviations from the median of the reference population (WHO new growth reference).
102 Height-for-age below -2 standard deviations from the median of the reference population (WHO new growth reference).
Stunting in the 2008 DHS was not found to be associated with wealth levels, in contrast to the 2005 WFP vulnerability study which found a relation between stunting and household vulnerability/poverty\textsuperscript{103}. This may be due to the different geographical coverage, timing of the surveys and pattern of changes in the economic and social environment which may have a distinct influence on poverty, food consumption and malnutrition. More in-depth studies would be required to better understand the differences between the determinants of poverty, food insecurity and chronic under-nutrition at individual and household levels. The on-going 2010-11 Household Income, Expenditure and Consumption survey includes anthropometric measurement among under-5 children living in the sampled households and should enable this kind of analysis.

5.2.2 – Prevalence of overweight and obesity among adults

Egypt is confronted to the double burden of under- and over-nutrition. Overweight and obesity are reaching alarming levels, starting at young age. In 2008, about 5% of adolescents and young adults aged 10-19 years were overweight. Some 28% of women aged 15-59 years were overweight and 40% obese, while 34% of men 15-59 years were overweight and 18% obese. Overweight and obesity were associated with higher blood pressure. They were more frequent in urban than rural areas, and among the wealthiest quintiles, reflecting the combination of an energy-dense diet with more sedentary lifestyles. They were less widespread in Upper Egypt, especially in rural areas, and more in urban Lower Egypt.

To contribute to address the overweight problem, a review of the commodity mix in the ration card of the government food subsidy programme has been suggested to reduce the amount of sugar and re-introduce lentils, and decrease the size of the subsidized bread\textsuperscript{104}.

5.2.3 – Prevalence of micronutrient deficiencies

The 2008 DHS found that only 1/3 of children under 3 years were consuming a diet rich in vitamin A and almost 3/4 a diet rich in iron. Both children and women’s intake of vitamin A and iron-rich foods was linked to the level of education of the mother and household wealth, indicating the role played by knowledge and economic factors in the quality of the diet. The coverage of mothers and under-5 children by vitamin A supplementation was rather low in 2008, with respectively 57% and 12% respectively benefiting.

With the exception of a survey in August 2010 on iron deficiency, there are few recent data on other micronutrient deficiencies. The 2010 survey found that 47% of women aged 20-50 years, 40% of children under 5 years of age, and 35% of children 6-18 years were anaemic. The prevalence of anemia was higher in Lower Egypt among children 6-12 years (56%) and women (53%), in Upper Egypt among women (52%), and in Cairo among children under-5 (54%) and adolescents 12-18 years of age (52%)\textsuperscript{105}.

Studies in the 1990s showed that 6% of children aged 6-18 years presented iodine deficiency disorders, and 13% of children 6-12 years and 21% of children 13-18 years were vitamin A-deficient. Zinc deficiency affected 19% of children 6-12 years and 9% of children 13-18 years (1998-2009 data)\textsuperscript{106}. Other national surveys have shown that the diet of school-age children was insufficient in vitamin A, thiamine (B1) and niacin (B3). Some 45% of school-age children are also anaemic due to iron deficiency.

A WFP project supports the distribution of fortified rice (vitamin A, B1, B3 and zinc) to families with a child who attended at least 85% of school days. The amount distributed is sufficient to cover about 30% of the recommended nutrient intake of vitamin A, niacin, thiamine and zinc of school-age children\textsuperscript{107}. Fortification of wheat flour (iron, folic acid) and oil (vitamins A and D) has also started in a few governorates with WFP support. The fortification of these commodities has the potential to improve the nutritional value of the subsidized ration card commodities and bread\textsuperscript{108}.

\textsuperscript{103} 32% of children in vulnerable households were stunted compared to 19% in non-vulnerable households. Source: WFP. Vulnerability Analysis and Review of Food Subsidy in Egypt. October 2005.
\textsuperscript{104} WFP. Vulnerability Analysis and Review of the Food Subsidy Programme in Egypt. October 2008.
\textsuperscript{106} WFP. Rice Fortification for School Children. October 2009..
\textsuperscript{107} The project is implemented by WFP in the most impoverished governorates of Upper Egypt (Beni Suef, Minia, Assiout, Fayoum and Sohag). It provides 10 kg fortified rice/family/month, representing about 2 kg rice/family member, and covering some 30% of school children daily requirements – About 50,000 family members were reached in 2010 and 160,000 should benefit in 2011. Source: WFP. Promoting Better Nutrition through Rice Fortification. May 2011.
\textsuperscript{108} WFP. Vulnerability Analysis and Review of the Food Subsidy Programme in Egypt. October 2008.
A survey of WFP food aid beneficiaries in two areas of Upper Egypt indicated that half of the women and most children aged 6-59 months were anaemic\textsuperscript{109}. A nutritional survey of Bedouin households in the Sinai peninsula (north-east Egypt) in 2005\textsuperscript{110} found widespread anaemia, affecting 42% of children aged 2-5 years.

Almost 80% of households were consuming iodized salt in 2008. Consumption was less frequent in rural Upper Egypt (63%) and among households in the poorest wealth quintile (57%). The nutritional survey of Bedouin households in the Sinai observed high levels of goitres among women and a preference for coarse non-iodized salt which is cheaper and readily available.

5.2.4 – Household food insecurity and child under-nutrition

The association between the prevalence of household food insecurity and the prevalence of stunting or wasting among under-5 children cannot be analysed directly since data were collected from different households and at different periods of the year 2008. However, some comparisons can be made between the geographical distribution of household food insecurity based on dietary energy deprivation and the distribution of stunting and wasting among children, with the view to individualize regions which cumulate the various types of problems.

At national level, the prevalence of dietary energy deprivation estimated from the average dietary energy intake at household level seems consistent with the prevalence of stunting among under-5 children.

The 2010-11 HIEC should enable to analyse directly the association, or lack thereof, between household food security and child nutritional status as both information are collected from the same household. An absence of association would point towards the role played by non-food factors in determining stunting among under-5 children. Households facing food consumption difficulties do not share systematically the same characteristics as households having stunted children. For instance, the level of education of the head of household and poverty were found to be associated with dietary energy deprivation but not with child under-nutrition.

However, it is also clear that inadequate dietary intake (in quantity or quality) is likely to affect the nutritional status of vulnerable members. The absence of high levels of stunting in these conditions may reflect a preferential treatment of children in poor household, even in households where the head of household is not highly educated, thus protecting their growth. Conversely, high levels of stunting in situations of relatively low problems of food access would rather show the effects of poor public health environment including polluted water and dysfunctional sanitation systems (particularly in urban slums and in remote, deprived rural areas), as well as inadequate care practices for lack of awareness and capacities to provide care (e.g. lack of time, need for care-takers to work outside the home etc.).

5.2.5 – Household poverty and child under-nutrition

Similarly as for dietary energy deprivation, at national level the degree of poverty is consistent with the severity of stunting but there are wide variations across regions.

Comparable results are found when looking at the prevalence of multi-dimensional poverty (non-income) and the prevalence of stunting.

The absence of clear pattern of poverty and stunting would again point towards the role played by environmental factors - besides income - in determining children’s growth, as well as the influence of knowledge, child feeding practices (see below) and arbitrage of allocation of resources between food and other essential non-food expenditures. Results from the 2010-11 HIEC could help understand better the relationship between these various factors.

5.3 - Child feeding practices

Breastfeeding is widely practiced (94% of infants ever breastfed), with 1/3 of infants still breastfed at 24 months of age. However, according to the 2008 DHS only about half of the infants were exclusively breast-fed until the age of 6 months, and only 40% of infants aged 6-23 months received adequate complementary feeding to breast-milk in terms of frequency and diversity of the food received. Children 6-24 months in the Urban Governorates and children born in wealthy households were more likely to have been adequately fed than in other areas.

5.4 - Health

The infant mortality rate decreased from 66 per 1,000 in 1990 to 18 per 1,000 in 2009, while the under-5 mortality rate decreased from 90 per 1,000 to 21 per 1,000 during the period. The 2008 DHS reported higher mortality rates in rural than urban areas. The highest levels were found in Upper Egypt and the lowest in Lower Egypt. Large differentials were noted across wealth quintiles, with much higher mortality rates among the poorest quintiles.

The immunization coverage is at or above 95% for all vaccines. The proportion of children 12-23 months fully immunized was slightly lower in the Frontier Governorates in 2008 (86%).

The 2008 DHS found that 9% of children under-5 had diarrhoea in the 2 weeks preceding the survey, and 8% had symptoms of acute respiratory infection. Diarrhoeal episodes were more common among children living in Upper Egypt and the Urban Governorates than in Lower Egypt and the Frontier Governorates. The relatively high levels of diarrhoea in urban areas may be attributed to widespread pollution of the water, including from water taps. The linkages between poor water quality and infectious disease were noted in the 2005 nutritional survey among Bedouin children: only 10% of households had access to piped water and 21% of children 2-5 years had suffered from diarrhoea during the month preceding the survey.

The 2008 DHS indicated a fertility rate of 3 births per woman, similar to the 2005 level. The fertility rate was higher in rural (3.2 births) than urban areas (2.7 births). Fertility levels were also the highest in Upper Egypt (3.4 births) and in the Frontier Governorates (3.2 births). Fertility rates decreased in the wealthiest quintiles.

The maternal mortality ratio was estimated at 82 per 100,000 live births in 2010. About 2/3 of women received antenatal coverage at least 4 times in 2008, and 80% received skilled attendance at birth. However there was a marked difference according to location and to poverty levels. The lowest coverage was in rural Upper Egypt (half of the women gave birth at home). Only about half of the women in the poorest households received skilled attendance at birth compared to 97% of women in the richest households.

The prevalence of HIV and AIDS infection is deemed very low (less than 1%).

According to the 2008 DHS, slightly more than ¼ of respondents had a health insurance. Urban residents were more likely to be insured (1/3 compared to 1/5 of rural residents). Residents in rural Upper Egypt were the least likely to have a health insurance. Insurance coverage also significantly increased with wealth (14% in the lowest quintile and 47% in the highest). The 2008 WFP vulnerability survey reported that the poorest were more likely to use public health facilities (where many can access free or subsidized health care) despite their lower quality, due to the high cost of private health services.

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111 UNICEF. Egypt statistics.
5.5 – Water and sanitation

The River Nile is the main source of water for domestic, agriculture and industrial consumption. Per capita water availability is rapidly declining as consumption in all these sectors is expanding.

All households in urban areas and 98% in rural areas had access to improved drinking-water sources\(^{114}\) in 2008. Access to an improved water source was slightly lower in the Frontier Governorates (88%). Poor households are less likely to be connected to water supply directly in their house and rather access water through public taps in the vicinity.

The majority of households had access to improved sanitation facilities\(^{115}\): 97% in urban areas and 88% in rural areas.

However, widespread access to piped water in the neighbourhood and to sanitation and waste disposal facilities does not guarantee water quality and an hygienic environment. The 2005 WFP study highlighted problems due to poor or lack of maintenance which may contribute to the higher rates of infections and acute malnutrition (wasting) found in some areas despite lower levels of poverty (e.g. urban areas). Awareness of adequate hygiene practices, such as hand-washing before handling food and proper food storage, is also lacking among the poor and less educated individuals and contributes to infectious diseases. High rates of anaemia are also partly explained by elevated levels of parasitism among children and adults living in unhygienic environments and not only by the lack of iron in the diet.

VI - CONCLUSIONS ON THE HOUSEHOLD FOOD SECURITY SITUATION

6.1 – Prevalence and magnitude of household food insecurity

The Global Hunger Index of the International Food Policy Research Institute (IFPRI) classifies Egypt in the "low hunger" category, based on the combination of the proportion of undernourishment in the population\(^{116}\), the prevalence of underweight children under-5, and the under-5 children mortality rate.

The average dietary energy available for consumption (based on Household Income, Expenditure and Consumption survey) was high at 2780 kcal/person/day in 2008-09.

In 2008-09, about 1/5 of the population was living below the poverty line and a similar proportion was consuming a diet bringing less than the average kilocalorie requirements. When combining poverty and dietary energy deprivation, 11% of the population would be food-insecure in Egypt, including 5% in urban areas and 14% in rural areas. Assuming a population of 84.6 million, there would be 9.3 million food-insecure in Egypt.

6.2 – Factors associated with household food security

The various studies and household surveys carried out in Egypt enable to identify the main underlying and basic factors of household food insecurity. Underlying causes of food insecurity include:

- Low income available to purchase diversified and nutritious food, in particular the more expensive animal products fruit and vegetables, translating into an unbalanced diet often excessive in energy but deficient

\(^{114}\) Improved water sources include water obtained from a piped source within the dwelling, a public tap, a borehole, or a protected well or spring.

\(^{115}\) Improved sanitation facilities include the sole (private) use of a modern or traditional flush toilet that empties into a public sewer, vault or septic system.

\(^{116}\) FAO does not provide data on the prevalence of undernourishment in the population (based on the distribution of available dietary energy per capita) due to lack of data. IFPRI’s own estimates for the calculation of the Global Hunger Index indicate 3% of undernourishment.
in essential micronutrients. Such a diet contributes, inter alia, to stunting among children, anaemia and decreased resistance to infection, and at the same time to overweight and obesity;

- Loss of purchasing power due to increases in the cost of living (non-subsidized food items, and other basic needs such as transportation), loss of job (as a result of the depressed economy) or individual shock such as prolonged illness of a household member (particularly if income-earner);
- Low amounts of agricultural production in rural areas, both crops and animals, affecting the amounts of food available for own consumption and for limited sales;
- Low/lack of access to social assistance systems, including ration card for subsidized staple foods and cash transfers;
- Low access to well-maintained and performing water, sanitation and health services, which increases risks of infections linked to contaminated water and unhygienic environment (for lack of maintenance of public systems) and limits health and care attention.

Poverty is a critical basic (structural) factor of household food insecurity. It drives access to food and affects food utilization (and nutritional status) through various pathways:

- Low acreage cultivated and number of animals owned, inefficient use of irrigation water, and limited access to extension services. These factors explain the low amounts of food produced for own consumption or for sale, and contribute to the high reliance of households, including in rural areas, on market purchases for food (net buyers);
- Poor access to education services, leading to illiteracy and low education levels. Poor education, in turn, limits access to:
  - A ration card for subsidized food – exposing households to loss of purchasing power during periods of rapid food price rise - and
  - Formal and regular employment and well-remunerated occupations. Employment in the informal sector is associated with lower wages, irregular work, and ineligibility to benefits such as pensions and insurance;
- Under-employment and unemployment. These conditions contribute to indebtedness as loans are incurred to meet essential consumption expenditures or exceptional expenditures linked to shocks (e.g. illness, death) or social obligations (e.g. wedding, Ramadan).
- Poor living conditions, including dependence on unsafe, polluted water (although obtained from public distribution systems) and environment, and overcrowding.

6.3 - Main characteristics of food-insecure households

6.3.1 - Chronically food-insecure households

In line with the factors of food insecurity identified above, the various household surveys concord on the main characteristics of poor and food-insecure households. In many cases these characteristics overlap, hence any targeting mechanisms for food security interventions should use a combination of these elements for selection purposes. Chronically food-insecure households are likely to be:

- Unemployed, including recent graduates;
- Relying on unstable, generally low-paid, source of income, such as casual unskilled labour (e.g. in agriculture, or construction), petty trade, smallholders (e.g. less than 1 feddan), landless labourers, seasonal workers, and low categories of government employees;
- Outside social assistance programmes (e.g. cash transfers, ration cards) or relying on low social cash transfers as the sole source of income (e.g. some of the pensioners, elderly, widows, orphans, disabled);
- Indebted (mainly to meet basic consumption expenses);
- Low level of education, particularly illiteracy or less than secondary level for the household head;
- Large household size, in particular large number of children (high dependency ratio);
- Low enrolment rates of children at primary and secondary school;
- Remote location/poorly serviced (e.g. rural areas and Upper Egypt; poor neighbourhoods of large cities) by physical infrastructure (water, sanitation roads) and public services (health, education);
Low ownership of productive assets, particularly no/little agricultural land and no/small number of animals in rural areas;

Low amount of food expenditures per capita, and consumption of a poorly diversified diet, particularly animal products, fruits and vegetables.

Malnutrition rates are not always clearly associated with poverty and food insecurity owing to the influence of non-income related factors influencing child feeding and care practices (cultural habits and physical and social access to health services) and the public health environment (particularly access to safe water and sanitation facilities and housing conditions). Nevertheless, even though not all households with stunted children are food-insecure, the characteristics of food-insecure households clearly increase risks of malnutrition among vulnerable members, including children, unless they receive preferential food allocations.

### 6.3.2 – Transitory food-insecure households

The WFP and World Bank panel studies in 2005 and 2008 highlighted the rapid shifts in the vulnerability to food insecurity and in poverty for many households. A similar proportion of households was considered chronically vulnerable as transitory vulnerable (10% each) based on changes in their situation between 2005 and 2008.

The main difference between chronically and transitory food-insecure households seems to be the nature of the main source of income, and specifically whether income is obtained from a stable, permanent occupation versus a temporary, seasonal or casual occupation. The loss of job and temporary decrease of income would explain much of the falling into poverty and food insecurity, while maintaining employment and increasing income would explain much of the uplifting out of poverty and food insecurity.

Other individual shocks such as illness or death of the main income-earner have the same effects as the loss of employment and fall of income but these households are more likely to become chronically food-insecure as their capacity to find again a job or increase their income-earning activities in future is decreased.

### 6.3.3 - Effects of the Libya crisis on household food security

The Libya crisis may:

- deepen the severity of chronic food insecurity in some cases; and
- create some transitory food insecurity in other cases with the risk of such households becoming chronically food-insecure.

Migrants who returned from Libya in the recent months back to their families in Egypt will rapidly present one or several of the characteristics of chronically and transitory food-insecure households as soon as any savings brought from Libya are exhausted, unless other household members or themselves can find a proper job. However this will not be easy given that most of returned migrants originate from impoverished governorates, particularly in Upper Egypt, where the lack of income-earning opportunities was a major push factor for migration in the first place.

Other households may also be affected indirectly by the Libya crisis including:

- Households who depend on trade with Libya for their livelihoods. No information is available on the impact of the crisis on trade activities and on the characteristics and number of Egyptian households involved.

Vulnerable households located in areas where refugees from Libya are settling. If the conflict in Libya extends in time and intensifies, camps located at the border to accommodate Third Country Nationals and Libyan nationals seeking refuge in Egypt may expand and/or other locations may also be used to host them in villages or towns. In the short- to medium-term, already vulnerable Egyptian households located in these areas may suffer from the pressure caused by the influx of refugees on markets (rise of prices), jobs and local infrastructures (e.g. water, health, education).

A proper survey is required to determine the food security situation and prospects of returned migrant households and of other households who may be indirectly affected.
6.3.4 - Other possible shocks

Civil disturbances early 2011 have already affected both permanent and seasonal workers engaged in hotels, restaurants and other tourist-related activities, as well as other sectors such as construction which are a large source of employment for the poor and potentially food-insecure. The situation is still fragile and these workers may again lose their main source of income or incur extended periods of unemployment, increasing the risk of food insecurity.

The rise of food prices is contained by the food subsidy system for staple foods and for those among the poor who have ration cards, but an estimated ¼ of the poor are excluded and are thus hit by the loss of purchasing power for food. Furthermore, the prices of non-subsidized commodities such as animal products, fruits and vegetables are also increasing and affecting economic access to diversified, good-quality food.

The on-going 2010-11 HIEC survey will shed some light on the current food security situation and provide some information on the main reasons for changes compared to 2008-09 at household level, including on the role played by civil unrest and food price rise.

6.4 - Location of food-insecure households

- Mostly rural Upper Egypt

A review of various sources of information indicate that Upper Egypt combines a series of factors associated with household food insecurity including the highest level of poverty (in rural areas), the lowest average asset ownership, the largest average household size, the lowest levels of education (head of household), the highest fertility rate and the highest child mortality rate. In all governorates, rural areas fare worse on all food security-related indicators than urban areas, except for wasting among under-5 children in some urban areas (see Annex 1).

Using a simple classification process and scoring system (see Annexes 2 and 3), it is also possible to identify governorates which cumulate high levels of income-poverty, multi-dimensional (non-income) poverty, and dietary energy deprivation. Thresholds of classification can be changed, but generally speaking the governorates associating the most severe food security problems are indicated below:

<table>
<thead>
<tr>
<th>First priority</th>
<th>Upper Egypt</th>
<th>Lower Egypt</th>
<th>Frontier Governorates</th>
<th>Urban Governorates</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Giza</td>
<td>Menoufia</td>
<td>South Sinai</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Beni Suef</td>
<td></td>
<td></td>
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<td></td>
<td>Fayoum</td>
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<td></td>
<td>Assiut</td>
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<td></td>
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<tr>
<td></td>
<td>Sohag</td>
<td></td>
<td></td>
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</tr>
<tr>
<td></td>
<td>Qena</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Second priority</td>
<td>Minia</td>
<td>Qualiobia</td>
<td>North Sinai</td>
<td>Cairo</td>
</tr>
<tr>
<td></td>
<td>Aswan</td>
<td>Gabeyya</td>
<td></td>
<td>Alexandria</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Beheira</td>
<td></td>
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</tr>
</tbody>
</table>

The forthcoming results of the 2010-11 HIEC will provide information on wasting and stunting rates at governorate level which will enrich this type of classification by enabling to consider the nutrition situation as well.

- Peri-urban slum neighbourhoods

There are no distinct data on peri-urban and slum neighbourhoods of large cities, however qualitative results point towards high levels of poverty and poor living conditions (housing, water and sanitation) which are likely to result in elevated levels of food insecurity.

The prevalence of wasting was higher in large cities than in other areas in 2008 and some urban areas in Lower Egypt were presenting higher levels of stunting among children. While food insecurity is unlikely to be

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117 HIECS coverage of frontier governorates in 2008/2009 is not sufficiently representative, and calculations based on HIECS data for these governorates may be highly misleading. Therefore, all indicators used for these governorates must be regarded with high caution.
the sole cause of malnutrition in cities, the combination of inadequate food intake with inadequate health, care and public health environment conditions is likely to explain these findings and the situation is likely to be worse in urban slums.

- Areas of massive return of Egyptian migrants from Libya

Many Egyptian migrants from Libya are believed to originate from Lower Egypt and Upper Egypt. In these areas, the prevalence of food insecurity may rise as a result of loss of remittances as a source of income and the increased pressure on the local labour market, unless alternative sources of income are found or migrants move again elsewhere in Egypt or outside the country in search for other work opportunities abroad.

- Areas where camps have been set up to host refugees from Libya and where refugees may be settling in

Depending on how protracted the refugee situation becomes and how many refugees settle in Egypt, hosting areas may see an increase of food insecurity among the local population due to competition for jobs and services (health, education, housing) as well as of possible rise of food and other prices (e.g. accommodation).

6.5 – Possible interventions to address food insecurity

The present review was not designed to examine past and current food security interventions in Egypt or to formulate specific recommendations for interventions. Below are broad suggestions based on the underlying and basic factors associated with household food insecurity and on the characteristics and location of chronically and transitory food-insecure households.

<table>
<thead>
<tr>
<th>What are the main food insecurity factors?</th>
<th>How can they be addressed?</th>
<th>Who should be targeted?</th>
<th>Where should interventions take place?</th>
</tr>
</thead>
<tbody>
<tr>
<td>UNDERLYING FACTORS OF FOOD INSECURITY</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| • Low income to purchase diversified and nutritious food, in particular the more expensive animal products fruit and vegetables | • Improve existing ration cards for food subsidies by including nutritious foods | • Unemployed  
• Seasonal/temporary low-paid work  
• Reliance on social cash transfers alone  
• High level of indebtedness  
• Large families  
• Low enrolment rate of children at school  
• Low assets ownership | • Rural areas, particularly in Upper Egypt  
• Poor urban neighbourhoods |
| • Loss of purchasing power due to increases in the cost of living, loss of job or individual shock (e.g. illness) | • Public works  
• Vocational training to enhance probabilities to find a job  
• Cash transfers, including increasing existing social cash transfers  
• Adapted micro-credit | | • Rural areas, particularly in Upper Egypt  
• Poor urban neighbourhoods |
| • Low amounts of agricultural production in rural areas, both crops and animals | • Agricultural inputs, animal feed and veterinary vouchers  
• Cash transfers  
• Adapted micro-credit | • Small land-holders  
• Poor farmers with livestock | • Rural areas, particularly in Upper Egypt |
| • Low/lack of access to social assistance systems, including ration card for subsidized staple foods and cash transfers; | • Information, and direct assistance on registration procedures | • Unemployed or seasonal/temporary work, especially the illiterate  
• High level of indebtedness  
• Large families  
• Low enrolment rate of children at school  
• Low asset ownership | • Rural areas, particularly in Upper Egypt and remote areas  
• Poor urban neighbourhoods |
What are the main food insecurity factors? | How can they be addressed? | Who should be targeted? | Where should interventions take place?
---|---|---|---
• Low access to well-maintained and performing water, sanitation and health services | • Repairs and upgrading of water and sanitation systems and housing, including through public works  
• Improved functioning of health services, including drug supply, equipment and health agent qualifications | • Formal and informal structures involved in water, sanitation and health services provision | • Remote rural areas, particularly in Upper Egypt  
• Poorly serviced urban neighbourhoods

**BASIC FACTORS OF FOOD INSECURITY**

| • Low acreage cultivated and number of animals owned, inefficient use of irrigation water, and limited access to extension services. | • Facilitation of land purchase or rental  
• Adapted micro-credit  
• Expanded and improved agricultural extension services | • Small land-holders  
• Poor farmers with livestock | • Remote rural areas, particularly in Upper Egypt

| • Poor access to education services, leading to illiteracy and low education levels. | • Expanded and upgraded education services  
• Education vouchers  
• Vocational training for adolescents and adults (including literacy)  
• School feeding | • Illiterate or only primary school education level among the unemployed and seasonal/temporary workers  
• Reliance on social cash transfers alone  
• High level of indebtedness  
• Large families with school-age children  
• Low enrolment rate of children at school  
• Low assets ownership | • Remote rural areas, particularly in Upper Egypt

| • Under-employment and unemployment. | • Public works  
• Vocational training  
• Adapted micro-credit for business development | • Unemployed  
• Seasonal/temporary low-paid work  
• Reliance on social cash transfers alone  
• High level of indebtedness  
• Large families with school-age children  
• Low enrolment rate of children at school  
• Low assets ownership | • Rural areas, particularly in Upper Egypt  
• Poor urban neighbourhoods

### 6.6 – Gaps of information on food security and nutrition and suggestions

There is a wealth of information on household poverty and socio-economic characteristics in Egypt, especially from the bi-annual Household Income, Expenditure and Consumption survey which is representative at national, rural/urban and governorate levels. A number of in-depth studies have also been conducted on the food subsidy and social cash transfer system of the government, with similar findings and recommendations.

Given the resources already engaged in the HIEC, another household survey to fill information gaps would not seem appropriate. Instead, in-depth – but light - case studies could be conducted in selected areas and among specific population groups to capture:

- the effects of the latest events in Egypt and Libya (see paragraphs 6.6.2 and 6.6.3), and
- the situation in urban slums (see paragraph 6.6.4).

#### 6.6.1 – Additional analyses using the 2010-11 Household Income, Expenditure and Consumption survey

Compared to previous rounds, the on-going HIEC 2010-11 is collecting additional information on food consumption diversity, coping strategies and exposure to shocks at household level, and under-nutrition...
among children in these same households. Specific analyses of these data should be carried out in order to fill gaps of knowledge and understanding of:

- **The quality of the diet, over and above the adequacy of dietary energy (kilocalories).**
  Dietary diversity is more likely to reflect issues of economic access to food given the widespread benefits from subsidized staple food. However, there may be discrepancies between dietary diversity and poverty, due to the influence of factors such as knowledge and awareness on nutrition and other obligatory expenses such as education, health, utilities, transportation, housing etc. These differences are important to identify in order to identify the interventions which tackle the primary factors of inadequate food intake.

- **Coping mechanisms and resilience capacities to shocks.**
  Coping strategies used in response to different kinds of shocks will help gauge the capacities of households to protect their food consumption (and nutritional status). They will also enable to identify the type of interventions which can support households’ own efforts. A distinction between strategies used to address basic and structural factors of food insecurity (e.g. unemployment, illiteracy, lack of assets) and strategies used to address conjectural factors (e.g. acute loss of purchasing power due to price increase or decreased income due to the political crisis or migrant return) can also inform on different modalities of support, e.g. medium- and long-term versus shorter-term interventions.

- **Relationship between household food insecurity and child under-nutrition.**
  Under-nutrition reflects both inadequate dietary intake and poor health status. Wasting is quite low at regional level but regional averages may mask large disparities across governorates (and within governorates). Similarly, stunting rates may be much higher in some governorates than the regional stunting average level. The role played by food insecurity versus health- and care-related factors, including child feeding practices and the public health environment, should be explored to identify which actions are most likely to tackle the primary factors of under-nutrition. In some cases, the quantity or quality of food consumed may not be the main problem and food security interventions not the priority.

6.6.2 - Suggestions for case study on the effects of recent shocks on household food security

The HIEC will not give specific information in the effects of the most recent domestic shocks on household food security, including the sharp rise of food prices (particularly the non-subsidized food items), and decreased economic activities due to the civil unrest (particularly loss of jobs and increased under-employment in tourism, construction and possibly other sectors).

The main purpose of the study would be to capture changes in the levels of food access and food consumption of households affected by loss of job or decreased salaries and by the concomitant rise of food prices at the end 2010-early 2011, and identify possible short- to medium-term interventions to prevent a deterioration of their food security situation.

- **Selection of governorates and localities**
  Based on a diversity of situations with regard to:
  - population size (small, medium, large)
  - type of employment accessed by poor local households and internal migrants from other localities (e.g. tourism, construction, other sector affected by the economic downturn due to the civil unrest early 2011)
  - type (temporary, seasonal, permanent) and size of internal migration (less than ¼ of households have an internal migrant, between ¼ and ½ of households, more than ½ households)
  - poverty levels

  Key informants from ministries and/or regional and governorate administrations and CAPMAS (?) may be able to provide information on these parameters to enable the selection.

- **Number of localities**
  One or more governorates can be selected, and one or more localities within each governorate to obtain a total of:
- 5 localities ‘providers’ of employment for poor residents and internal migrants in sectors affected by the economic downturn
- 5 localities ‘senders’ of internal migrants traditionally employed in these sectors

**Sources of information**

<table>
<thead>
<tr>
<th>Locations</th>
<th>Key Informants</th>
<th>Focus Groups</th>
<th>Households</th>
</tr>
</thead>
</table>
| 5 localities ‘providers’ of temporary or seasonal employment | In each locality:  
• Employers (hotels, restaurants, construction, other relevant sector)
• Representatives of social services, education, health, charity institutions, NGOs
• Shop-keepers (changes in food purchasing patterns, debts for food) | In each locality:  
• 2 FGs (men/women) with representatives of households who have members employed or looking for work in the affected sectors  
• 1 FG with internal migrants employed or looking for work in the affected sectors  
Total: 15 focus groups | In each locality:  
• 10 local poor households with members employed or looking for work in the affected sectors  
Total: 50 households |

| 5 localities ‘senders’ of temporary or seasonal workers for work in the affected sectors | In each locality:  
• 2 FGs (men/women) with representatives of household who have migrants employed or looking for work in affected sectors (separate men, women)  
• 1 FG with internal migrants who have not migrated this year or have come back  
Total: 15 focus groups | In each locality:  
• 10 poor households sending internal migrants for work in the affected sectors  
Total 50 households |

6.6.3 – Suggestions for case study on migrants returned from Libya and other effects of the Libya crisis

The main purpose of the study would be to estimate the impact of:

(i) the loss of remittances from Libya on the food security situation of concerned households, and prospects for compensating this loss through other income-earning mechanisms; and

(ii) a possible large influx of Libyan refugees and/or protracted settlements of Libyan refugees on food security of host communities in Egypt and of refugees themselves.

**Selection of governorates and localities**

Based on a diversity of situations with regard to:

- population size (small, medium, large)
- size of external migration to, or return from, Libya (for example: less than 10% of households have or had an external migrant to Libya, between 10% and 30% of households, more than 30% of households)
- size of refugee population from Libya settling in the locality (for example: less than 100, between 100-500, more than 500?)
- poverty levels

Key informants from ministries and/or regional and governorate administrations and CAPMAS (?) may be able to provide information on these parameters to enable the selection.
• **Number of localities**

One or more governorates can be selected, and one or more localities within each governorate to obtain a total of:

- 10 localities traditional ‘senders’ of external migrants to Libya and having large numbers of returned migrants from Libya
- 5 localities where refugees from Libya are settling in.

• **Sources of information**

<table>
<thead>
<tr>
<th>Locations</th>
<th>Key Informants</th>
<th>Focus Groups</th>
<th>Households</th>
</tr>
</thead>
</table>
| 10 localities traditional ‘senders’ of migrants to Libya and where large numbers of migrants have returned | In each locality:  
- Representatives of local administration, social services, education, health, charity institutions, NGOs  
- Shop-keepers (changes in food purchasing patterns, debts for food) | In each locality:  
- 2 FGs (men/women) with representatives of poor households having a returned migrant from Libya  
- 1 FG with returned migrants themselves  
Total: 30 focus groups | In each locality:  
- 10 poor households with returned migrants  
Total 100 households |
| 5 localities where refugees from Libya are settling in | | In each locality:  
- 2 FGs (men/women) with representatives of local poor households  
- 2 FGs (men/women) with Libyan refugees  
Total: 20 focus groups | |  

<table>
<thead>
<tr>
<th>Locations</th>
<th>Key Informants</th>
<th>Focus Groups</th>
<th>Households</th>
</tr>
</thead>
</table>
| 6.6.4 – Suggestions for a case study on household food security in urban slums | | In each locality:  
- 10 local poor resident households  
- 10 Libyan refugee households (according to expected poverty or random)  
Total 100 households | |  

The type of urban sample drawn in the HIEC does not enable to describe the poverty and food security situation in urban slums specifically. The economic/poverty and food security (and nutrition) situation of households living in these areas is thus not well-known. The study would aim at identifying groups who may be in situation of severe food insecurity, the main contributing factors, and broad types of interventions. Should there be possibilities to implement these interventions, complementary data collection may be required to better estimate the caseload and practical targeting criteria.

• **Selection of urban locations**

Depending on resources available, the study could be carried out in urban slums of Cairo only, as it concentrates the largest number of people living in slums, or include also Alexandria, the 2nd largest town, with possibly less opportunities for residents than in Cairo.

The slums themselves could be selected based on a diversity of situations with regard to:

- concentration of the population and distance from the town’s centre or from the town’s main labour markets: for example, peri-urban slum areas, slum neighbourhoods within town, scattered slum dwellings within town; and
- duration of existence of the slums, e.g. less than 1 year, 2-5 years, more than 5 years.

Key informants from ministries and/or local urban administrations, CAPMAS (?) and some NGOs (?) may be able to provide information on these parameters to enable the selection.

• **Number of urban locations**

If possible: 3 locations within each category above, or a total of 25 locations using geographical location as the sole criteria.
Sources of information in each selected location

<table>
<thead>
<tr>
<th>Key Informants</th>
<th>Focus Groups</th>
<th>Households</th>
</tr>
</thead>
<tbody>
<tr>
<td>Representatives of local administration, social services, education, health,</td>
<td>2 FGs (men/women) with representatives of slum dweller households per location</td>
<td>10 slum dweller households per location</td>
</tr>
<tr>
<td>charity institutions, NGOs</td>
<td></td>
<td>Total: 270</td>
</tr>
<tr>
<td>Shop-keepers (food purchasing patterns, debts for food)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employers (if can be identified)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## ANNEX 1: Food security-related characteristics by region

### ANNEX 1 - Food security-related characteristics by region

<table>
<thead>
<tr>
<th>Household size</th>
<th>Woman-headed household</th>
<th>Education</th>
<th>Land ownership</th>
<th>Animal ownership</th>
<th>Domestic assets ownership</th>
<th>Poverty</th>
<th>Employment</th>
<th>Fertility rate</th>
<th>Child mortality</th>
<th>Stunting</th>
<th>Wasting</th>
<th>Adult overweight &amp; obesity</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Upper Egypt</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Highest in rural areas (5.8 members)</td>
<td>Low in rural areas (12%)</td>
<td>Lowest education level in rural areas, highest illiteracy</td>
<td>Average in rural areas (25%)</td>
<td>Highest in rural areas (49%)</td>
<td>Lowest - 13% in the highest asset wealth quintile, in rural areas, 50% in the lowest asset wealth quintile</td>
<td>Highest in rural areas (44%) - 21% in urban areas</td>
<td>Low proportion with a member having a skilled job (47%) but relatively high proportion with a permanent employment (76%)</td>
<td>Highest (3.4 births/wo man)</td>
<td>Highest (43 per 1000 live births for under-5)</td>
<td>Average (26%)</td>
<td>Average (6.8%)</td>
<td>Low (57% in women, 46% in men), especially in rural areas (55% in women, 41% in men)</td>
</tr>
<tr>
<td><strong>Lower Egypt</strong></td>
<td>4.4 members</td>
<td>Low in rural areas (12%)</td>
<td>Low education level in rural areas</td>
<td>Average in rural areas (23%)</td>
<td>Relatively low in rural areas (30%)</td>
<td>Low - 14% in the highest asset wealth quintile</td>
<td>17% in rural areas - 7% in urban areas</td>
<td>Low proportion with a member having a skilled job (52%), but high proportion with a permanent employment (82%)</td>
<td>Average (2.9 births/wo man)</td>
<td>Lowest (25 per 1000 live births for under-5)</td>
<td>Average (23%)</td>
<td>Average (6.6%)</td>
</tr>
<tr>
<td><strong>Frontier Governorates</strong></td>
<td>High (5.1 members)</td>
<td>Lowest (7%)</td>
<td>Average education level</td>
<td>Low (14%)</td>
<td>Relatively low (21%)</td>
<td>Low - 18% in the highest asset wealth quintile</td>
<td>Not available</td>
<td>High (3.3 births/wo man)</td>
<td>Average (33 per 1000 live births for under-5)</td>
<td>Lowest (22%)</td>
<td>Average (6.4%)</td>
<td>Lowest (54% in women, 41% in men)</td>
</tr>
<tr>
<td><strong>Urban Governorates</strong></td>
<td>Lowest (3.9 members)</td>
<td>Highest (16%)</td>
<td>Highest education level - Low illiteracy</td>
<td>Lowest (2%)</td>
<td>Lowest (2%)</td>
<td>Highest - 47% in the highest asset wealth quintile</td>
<td>7%</td>
<td>Highest proportion with a member in a skilled employment (85%), but low proportion with a permanent employment (72%)</td>
<td>Lowest (2.6 births/wo man)</td>
<td>Average (32 per 1000 live births for under-5)</td>
<td>Average (28%)</td>
<td>Highest (9.8%)</td>
</tr>
<tr>
<td><strong>Rural</strong></td>
<td>Higher (5.1 members) - 22% with more than 6 members</td>
<td>Lower (12%)</td>
<td>Lower (19% with no education, 22% completed secondary, 8% more than secondary)</td>
<td>Higher (24%)</td>
<td>Higher (38%)</td>
<td>Lower - 5% in the highest asset wealth quintile and 31% in the lowest</td>
<td>Higher (29%)</td>
<td>Higher (3.2 births/wo man)</td>
<td>Higher (36 per 1000 live births for under-5)</td>
<td>Higher (30%)</td>
<td>Average (6.7%)</td>
<td>Lower (64% in women, 48% in men)</td>
</tr>
<tr>
<td><strong>Urban</strong></td>
<td>Lower (4.7 members) - 8% with more than 6 members</td>
<td>Higher (15%)</td>
<td>Higher (10% with no education, 24% completed secondary, 22% more than secondary)</td>
<td>Lower (3%)</td>
<td>Lower (5%)</td>
<td>Higher - 41% in the highest asset wealth quintile and 5% in the lowest</td>
<td>Lower (11%)</td>
<td>Lower (2.7 births/wo man)</td>
<td>Lower (29 per 1000 live births for under-5)</td>
<td>Lower (22%)</td>
<td>Average (8.2%)</td>
<td>Higher in women (73%)</td>
</tr>
<tr>
<td><strong>Poorest</strong></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Higher (3.4 births/wo man)</td>
<td>Higher (46 per 1000 live births for under-5)</td>
<td>Average (29%)</td>
<td>Average (7.1%)</td>
<td>Lower in women (53%)</td>
</tr>
<tr>
<td><strong>Richest</strong></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Lower (19 per 1000 live births for under-5)</td>
<td>Average (27%)</td>
<td>Average (7.6%)</td>
<td>Higher in women (74%)</td>
<td></td>
</tr>
</tbody>
</table>
## ANNEX 2 – Classification of governorates according to the prevalence of poverty, dietary energy deprivation, and under-nutrition among children under-5

<table>
<thead>
<tr>
<th>Region</th>
<th>Governorate</th>
<th>Poverty (≤10%-10%-25%, &gt; 25%)</th>
<th>Multi-dimensional poverty (≤5%, 5%-15%, &gt; 15%)</th>
<th>Dietary energy deprivation (≤10%, 10%-25%, &gt; 25%)</th>
<th>Stunting (≤25%, 25%-29%, &gt;29%)</th>
<th>Wasting (≤5%, 5%-10%, &gt;10%)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Urban Governorates</strong></td>
<td>Cairo</td>
<td>7.60%</td>
<td>10.70%</td>
<td>20.10%</td>
<td>28.00%</td>
<td>9.8%</td>
</tr>
<tr>
<td></td>
<td>Alexandria</td>
<td>6.40%</td>
<td>8.70%</td>
<td>17.30%</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Port Said</td>
<td>4.40%</td>
<td>0.70%</td>
<td>0.20%</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Suez</td>
<td>1.90%</td>
<td>0.20%</td>
<td>0.00%</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Lower Egypt</strong></td>
<td>Damietta</td>
<td>1.10%</td>
<td>0.90%</td>
<td>0.30%</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Dakahlia</td>
<td>9.30%</td>
<td>3.80%</td>
<td>10.30%</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sharkia</td>
<td>19.10%</td>
<td>2.60%</td>
<td>7.10%</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Qualiobia</td>
<td>11.30%</td>
<td>5.10%</td>
<td>12.90%</td>
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<td></td>
</tr>
<tr>
<td></td>
<td>Kafr el Sheikh</td>
<td>11.20%</td>
<td>4.20%</td>
<td>8.60%</td>
<td>36.0%</td>
<td>6.8%</td>
</tr>
<tr>
<td></td>
<td>Garbeyya</td>
<td>7.60%</td>
<td>5.90%</td>
<td>13.60%</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Menoufia</td>
<td>17.90%</td>
<td>16.40%</td>
<td>34.30%</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Beheira</td>
<td>23.50%</td>
<td>11.30%</td>
<td>20.20%</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Ismailia</td>
<td>18.80%</td>
<td>0.40%</td>
<td>0.60%</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Upper Egypt</strong></td>
<td>Giza</td>
<td>23%</td>
<td>25.70%</td>
<td>37.90%</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Bani Suef</td>
<td>41.40%</td>
<td>24.80%</td>
<td>39.30%</td>
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<td></td>
</tr>
<tr>
<td></td>
<td>Fayoum</td>
<td>28.70%</td>
<td>17.50%</td>
<td>28.10%</td>
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<td></td>
</tr>
<tr>
<td></td>
<td>Menia</td>
<td>30.90%</td>
<td>10.90%</td>
<td>18.80%</td>
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</tr>
<tr>
<td></td>
<td>Assiut</td>
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<td>34.50%</td>
<td>49%</td>
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</tr>
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<td>Sohag</td>
<td>47.50%</td>
<td>16.20%</td>
<td>25.70%</td>
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</tr>
<tr>
<td></td>
<td>Qena</td>
<td>39%</td>
<td>13%</td>
<td>18.60%</td>
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<td></td>
</tr>
<tr>
<td></td>
<td>Aswan</td>
<td>40.90%</td>
<td>3.10%</td>
<td>5.10%</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Luxor</td>
<td>18.40%</td>
<td>5.50%</td>
<td>8.30%</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Frontier Governorates</strong></td>
<td>Red Sea</td>
<td>4%</td>
<td>4.60%</td>
<td>7.50%</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>New Valley</td>
<td>6.20%</td>
<td>1.60%</td>
<td>2.40%</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Matrouh</td>
<td>4.30%</td>
<td>2.50%</td>
<td>0.30%</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>North Sinai</td>
<td>27.90%</td>
<td>1.50%</td>
<td>1.70%</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>South Sinai</td>
<td>0</td>
<td>16.90%</td>
<td>28.90%</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td>21.60%</td>
<td>11.80%</td>
<td>20.30%</td>
<td>29.0%</td>
<td>7.0%</td>
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</tbody>
</table>

118 HIECS coverage of frontier governorates in 2008/2009 is not sufficiently representative, and calculations based on HIECS data for these governorates may be highly misleading. Therefore, all indicators used for these governorates must be regarded with high caution.
### ANNEX 3 – Scoring of governorates according to poverty, dietary energy deprivation and under-nutrition among children under-5

<table>
<thead>
<tr>
<th>Region</th>
<th>Governo-rate</th>
<th>Poverty (&lt;10%-10%-25%, &gt;25%)</th>
<th>Multidimensional poverty (&lt;5%, 5%-15%, &gt;15%)</th>
<th>Dietary energy deprivation (&lt;10%, 10%-20%, &gt;25%)</th>
<th>Stunting (&lt;10%, 10%-20%, &gt;20%)</th>
<th>Wasting (&lt;5%, 5%-10%, &gt;10%)</th>
<th>Total score (excluding nutrition)</th>
</tr>
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<tbody>
<tr>
<td><strong>Urban Governors (4)</strong></td>
<td></td>
<td></td>
<td></td>
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<td>5</td>
</tr>
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<td>Port Said</td>
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<td></td>
<td></td>
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<td>1</td>
<td></td>
<td></td>
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<td><strong>Lower Egypt (9)</strong></td>
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<td>Luxor</td>
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<td><strong>Frontier Governors (5)</strong></td>
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</tr>
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<td></td>
<td></td>
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</tr>
<tr>
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<td></td>
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<td></td>
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</tr>
</tbody>
</table>

---

119 HIECS coverage of frontier governorates in 2008/2009 is not sufficiently representative, and calculations based on HIECS data for these governorates may be highly misleading. Therefore, all indicators used for these governorates must be regarded with high caution.

120 The final score of South Sinai seems at odd with other studies and the high tourism activities in this region. A review of the various criteria and possible addition of others would enable to refine the scoring system of all regions.

47
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