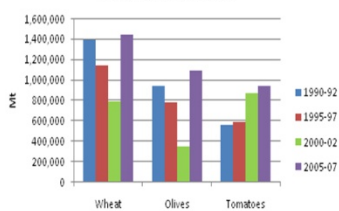


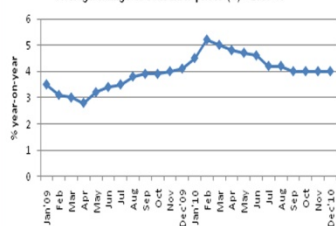
# Secondary data analysis of the food security situation in Tunisia

## TUNISIA

Variations of main wheat, olive and tomato productions  
between 1990-92 and 2005-07



Average change of consumer prices (%) - 2009-10



April 2011



**Secondary data analysis of**  
**the food security situation**  
**in Tunisia**

**World Food Programme**  
**Regional Bureau for the Middle East, ODC**  
**April 2011**

A Working paper  
With contribution by the Food and Agriculture Organization of the United Nations  
RNE Regional Near East Office

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## **INTRODUCTION**

This secondary literature review and analysis of the food security situation in Tunisia was undertaken in the context of civil disturbances in December 2010-January 2011 resulting in the set-up of an interim government, and of the rapid return of migrants from Libya as a result of the civil conflict outbreak in Libya mid-February 2011. Third Country Nationals and Libyan nationals also crossed the border to seek refuge in Tunisia. By mid-April 2011, an estimated 245,000 persons had entered Tunisia over the previous 2 month period<sup>1</sup>.

The civil unrest affected the economy, and the return of Tunisian migrants from Libya will create hardship for families who used to receive their remittances and put pressure on the labour market. The conflict also entails a loss of trade activities with Libya and ensuing losses for producers, traders and export earnings.

These shocks add to the negative effects of the global economic crisis in 2009-10 which decreased tourism and exports, as well as the sharp rise of food prices from mid-2010 onwards. Tunisia's political turmoil at the end of 2010 is attributed in part to the hardship created by these difficulties.

The present review covers the whole country and population, and does not focus on the recent Libya-related events. It attempts to estimate the levels of household food insecurity and identify the underlying and basic factors, including food production and trade, household economic access to food (including poverty levels, sources of income and expenditures), food consumption patterns, and social assistance programmes.

This information will be combined with primary data collected on households and markets in selected vulnerable regions<sup>2</sup> to inform appropriate food security responses and targeting criteria.

## **I - CONTEXT**

### **1.1 - Geography**

Tunisia borders the Mediterranean Sea, between Algeria and Libya. It covers an area of 162,155 km<sup>2</sup>. It has a Mediterranean climate on the northern and north-eastern coasts, and semi-arid inland and in the south. The south is mainly occupied by the Sahara desert with some oases.

The population is increasingly concentrated along the eastern littoral. There are 24 governorates<sup>3</sup>.

### **1.2 - Political context**

Street protests that began in December 2010 over high unemployment, corruption, poverty, and high food prices, escalated in riots in January 2011. Following the ousting of the president mid –January, civil disturbances have continued with few breaks until April 2011. An interim government was formed in January. It has drawn up a “road map to democracy” in an effort to contain the protests. An election for a national constituent assembly is planned on 24 July 2011 to rewrite the constitution and organize parliamentary and

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<sup>1</sup> OCHA Libya Crisis Situation Report No.25 – 14 April 2011.

<sup>2</sup> Kasserine, Sidi Bouzid and Kairouan in the centre-west have already been identified as the most vulnerable, being regarded as the poorest and with many migrants returning from Libya originating from there. *Source: WFP/FAO. Rapid Assessment of Tunisian Returnees. March 2011.*

<sup>3</sup> Tunis, Ariana, Ben Arous, La Manouba, Beja, Jendouba, Silliana, Bizerte, Nabeul, Zaghuan, Gafsa, Kairouan, Kasserine, Mahdia, Monastir, Sfax, Sidi Bouzid, Sousse, Gabes, Kebili, Medenine, Tataouine, and Tozeur.

presidential elections. So far the army has not intervened and is expected to maintain this stance unless the security situation deteriorates markedly or the efforts to build a new political consensus collapse<sup>4</sup>.

The challenge in the months ahead is to ensure that economic growth is high enough to meet the demands of protesters for more jobs and higher standards of living, which will require to pursue balanced market-oriented policies. In the interim, an increase of social benefits and subsidies on basic food items may be needed to ease the situation of the unemployed<sup>5</sup>.

### **1.3 - Population**

The population is estimated at about 10.4 million in 2010, with some 2/3 living in urban areas. Tunis, the capital, counts about 759,000 inhabitants<sup>6</sup>. The other largest towns are Sfax (271,000), Sousse (173,000), Kairouan (118,000), Gahès (116,000) and Bizerte (114). There is a population drift from the south and west to the north and east, and to the towns.

Most of the population are Arab, with few Europeans. Around 1.1 million Tunisians were estimated to reside abroad in 2009, principally in Europe (more than 80%) with most of the rest in the Arab Gulf states.

The population growth rate fell from 3% in 1966 to 1.1% in 2007. The population is still young, with about ¼ of the population below 15 years age, but getting older (7% over 65 years). The average household size fell from 5.3 persons in 1990 to 4.7 in 2007. Only 13% of households were headed by a woman in 2007<sup>7</sup>.

Tunisia's Human Development Index in 2010 was 0.683 and higher than the regional average for Arab States of 0.590<sup>8</sup>. Life expectancy at birth was estimated at 75 years in 2011 (73 for men and 77 for women).

### **1.4 - Education**

A high proportion of the government budget is dedicated to education (28% in 2008, equivalent to 7% of GDP)<sup>9</sup>. Primary and secondary education is free and compulsory from 6 to 16 years of age. Almost all primary school-age children were enrolled in school in 2008. Primary education completion rate was 91% among girls and 87% among boys<sup>10</sup>. However, there is a significant drop-out rate after age 12: enrolment rates were falling to 75% on average at secondary level in 2008, with a higher drop-out among boys than girls.

Tunisia has one of the highest literacy rates in the region. Literacy rose from 65% of the adult population in 1990 to 79% in 2006 (71% among women and 87% among men). Most of the young aged 15-24 years are literate (96% female, 98% male).

Universities are failing to produce sufficient graduates with high-quality technical and scientific skills however, and there is a high rate of graduate unemployment (see paragraph 4.1.3).

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<sup>4</sup> EIU. Tunisia Country Report, March 2011.

<sup>5</sup> EIU. Tunisia Country Report, March 2011.

<sup>6</sup> CIA. Tunisia Country Profile, March 2011.

<sup>7</sup> UNICEF/Ministère de la Santé Publique. Enquête sur la santé et le bien-être de la mère et l'enfant. MICS 3. Rapport final. 2007.

<sup>8</sup> The Human Development Index is a composite measure of the average achievement in life expectancy, adult literacy and GDP per capita.

<sup>9</sup> EIU. Tunisia Country Profile, 2008.

<sup>10</sup> World Bank. *Note de présentation de la Tunisie*. September 2010.

## **1.5 - Economy**

The economy has diversified with important agricultural, mining, tourism and manufacturing sectors.

Services accounted for the largest share of GDP (about 55%) in 2009, with transport, communications, hotels and catering particularly important. Industry contributed to 35% of the GDP and is dominated by textile and electrical and mechanical output. Other industries are food processing (mainly olive oil), construction materials, and chemicals. Agriculture represented 11% of the GDP, a proportion relatively stable over the past years<sup>11</sup>.

Growth averaged 5% over the past decade with some decline in 2008-09. GDP per capita is US\$8,630<sup>12</sup>.

Despite its relatively small share of the GDP, economic growth is sensitive to the cyclical output of agriculture (vulnerable to poor rainfall) and to the rate of expansion in the European Union (EU), the destination of 80% of Tunisia's exports. Real GDP growth in 2010 was estimated at 3.4%, reflecting stronger EU demand for Tunisian products. Growth in 2011 may decelerate to 2% in light of on-going unrest and political uncertainty. Medium-term growth in 2011-15 is forecast to average 3%.

Growth slow-down expected in 2011 can be attributed to perturbed domestic market, decreased industry output (strikes and absenteeism), weak growth and demand in the EU, and political unrest in several countries of the region, particularly in Libya (a market for Tunisian goods). Tourism has been in decline since January 2011 when many tour operators ceased operations in Tunisia. However, by March many were offering cut-price deals to encourage tourists to return.

Tunisia has modest reserves of petroleum and gas. Petroleum products are meeting only half of local demand and the rest must be imported. Local gas production also covered about half of consumption in 2007. Phosphate reserves are significant (quarried in the south-west of the country near Gafsa) and are the basis of a chemicals industry. The transport and communications infrastructure is good for a developing country. The electrification rate is practically 100%.

Exports as a proportion of GDP have risen steadily over the past few years. The main exports (2008) are textiles (22% of total), petroleum and derivatives (17%), electrical equipment (16%), fertilizer and chemicals (14%), leather & hides (4%) and olive oil (3%). However, exports are expected to fall in 2011, reflecting lower amounts of manufactured goods produced.

Remittances from Tunisian working abroad were TD274 million (US\$192 million) in the year to end February 2011, just 8% lower than in the same period of 2010. Remittances are likely to be badly affected by the civil war in Libya, from which an estimated 70,000 Tunisian workers have fled.

### **Short-term perspectives**

The instable climate will have a negative impact on tourism revenue and trade, and increase the budget deficit. Rising commodity prices in 2011 will further increase the deficit while unrest in Libya will substantially depress remittances. Furthermore, by increasing social assistance and food subsidies, the government revenue will decline and the budget deficit is forecast to reach about 9% GDP in 2011.

However, a substantial amount of international aid is expected to flow into Tunisia, with the World Bank, the International Monetary Fund (IMF), the African Development Bank, the European Union and Arab funds all promising aid to support Tunisia in its shift to a democratic system.

In addition, some recovery is expected in 2012 as domestic demand recovers and measures are taken to widen and deepen tax collection from corporations and value-added tax.

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<sup>11</sup> CIA. Tunisia Country Profile, March 2011.

<sup>12</sup> EIU. Tunisia Country Report, March 2011.

## **II - FOOD PRODUCTION**

Tunisia is a food-deficit country despite having achieved near self-sufficiency in dairy products, meat, and various vegetables and fruits. Domestic food production is lower than consumption requirements for key staples such as cereals, vegetable oil and sugar.

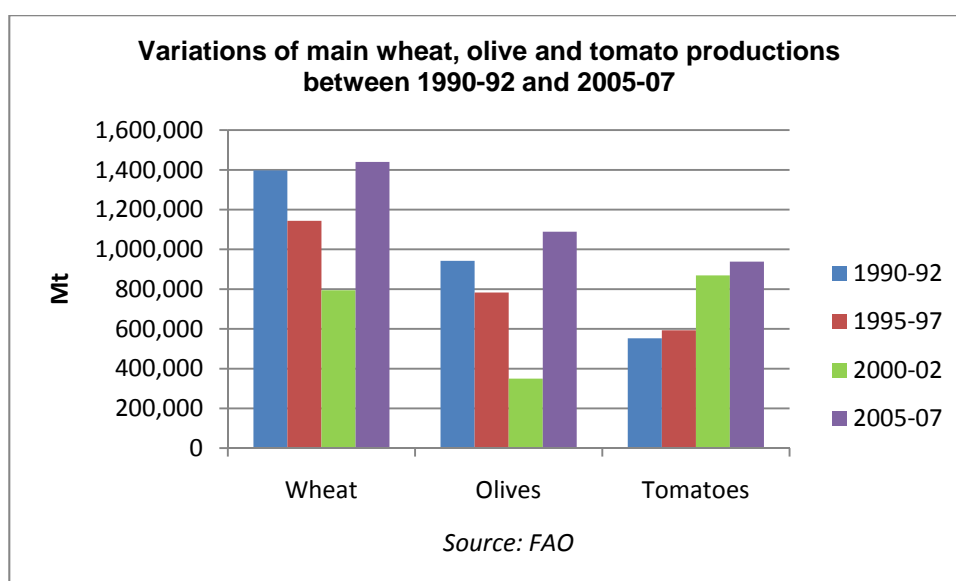
Agricultural production fluctuates markedly from year to year due to weather variations. It contributed to about 12% of the GDP since the early 2000s. The sector has about 700,000 full-time employees, some 20% of the total workforce<sup>13</sup>, of which 1/3 are women. The main crops are cereals (wheat, barley) and olive trees, followed by dates, tomatoes, peppers, melons, potatoes and onions. Dairy and meat cattle and poultry are also raised. Seafood is a key export.

### **2.1 – Crop production**

Over ¼ of the land (5 million hectares) is cultivated, and just under ¼ (4.2 million hectares) is pasture or forest. Only 8% of cultivated land (450,000 hectares) is fully irrigated and 60,000 hectares are part-irrigated. Although a limited acreage is irrigated, 85% of exploitable water resources are already used. In the medium- to long-term, water shortages will become serious and the competing demands of farmers, industry, tourism and domestic consumers will generate tensions. Around 20,000 hectares of farmland are lost each year through erosion, desertification, salination or urbanisation<sup>14</sup>.

Around 1/3 of cultivated land is sown with cereals, roughly half of which is wheat, grown mostly in the north. The output of rain-fed agriculture fluctuates sharply from year to year according to rainfall. On average, cereal production meets only 40% of local consumption. The cereal output was low in 2010 owing to a rainfall shortage and the harvest is estimated to be 46% lower than in 2009 which was a very good year. In 2009, the harvest covered 53% of consumption requirements. Early prospects for the 2011 winter wheat and coarse grain crops to be harvested in June, are favourable.

Another 1/3 of the land is planted with olive trees. Tunisia is now one of the world's largest producers (4<sup>th</sup> after Spain, Italy and Greece) and exporters (3<sup>rd</sup>) of olive oil. However, as for cereals, the production is fluctuating between seasons according to the level of rainfall.



<sup>13</sup> 16% in 2008 according to the Economist Intelligence Unit (EIU. Tunisia Country Profile, 2008) – 22% for the period 2005-07 according to FAO.

<sup>14</sup> EIU. Tunisia Country Profile, 2008.



Agricultural output has increased by some 40% since 1987, owing to greater use of fertilizer, pesticide and improved seeds, but their utilisation is still low, as is mechanisation. The food production per capita index in Tunisia has progressed but remains rather low at 220 - compared to a base 100 in 1999-2001 and to the world average of 233.

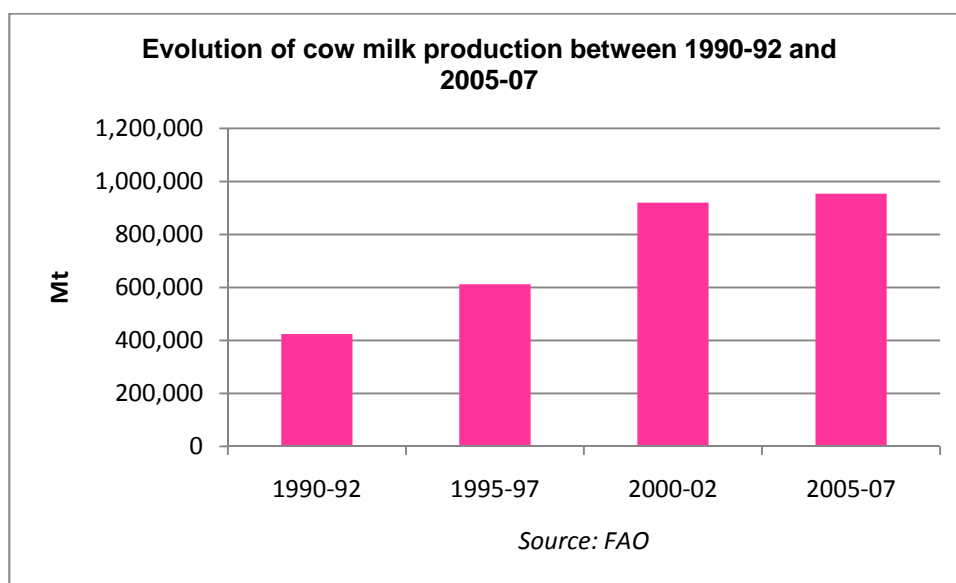
Agriculture suffers from fragmented and small-scale holdings and absentee landlords. Crop wastage is high because of shortcomings in transport and storage. Farmers also find it hard to obtain loans to invest in equipment. As a result, the sector is not exporting as much farm produce to the EU as it is entitled under the reduced-tariff and duty-free quota system<sup>15</sup>. The government has increased its support to the agricultural sector in 2010 through improved seeds distribution and debt rescheduling for farmers affected by the drought and poor harvest.

## **2.2 - Animal production**

Dairy cattle and local cattle for meat (679,000 heads in 2009), sheep (7,360), goats (1,450), poultry and camels are raised.

Dairy farms are generally of small size and sometimes combined with agricultural activities. Intensive dairy breeding has also developed in recent years, based on imported animal feed. The production of dairy products (and consumption) has markedly increased over the past 10 years owing to active government support including subsidies on imported animal feed, and encouragement to investment in dairy cattle breed through financial measures (e.g. credit), infrastructure (e.g. milk collect centres), and the development of the milk industry. As a result, current milk and other dairy products output is practically sufficient to meet domestic demand, except in - rather rare - bad years where animal productivity is decreased<sup>16</sup>.

Meat production has also significantly augmented between 1998 and 2007, especially poultry (by 50%). As for dairy products, the country has achieved near self-sufficiency in meat supply.



The number of animals, as well as dairy and meat productions, show a decreasing trend since 2007 however, possibly as a result of the rise of cost of animal feed, which must be imported.

<sup>15</sup> EIU. Tunisia Country Profile, 2008.

<sup>16</sup> WFP. *La sécurité alimentaire en produits de base. Cas de la Tunisie*. BHMT Consulting. March 2009.

### **2.3 - Fisheries**

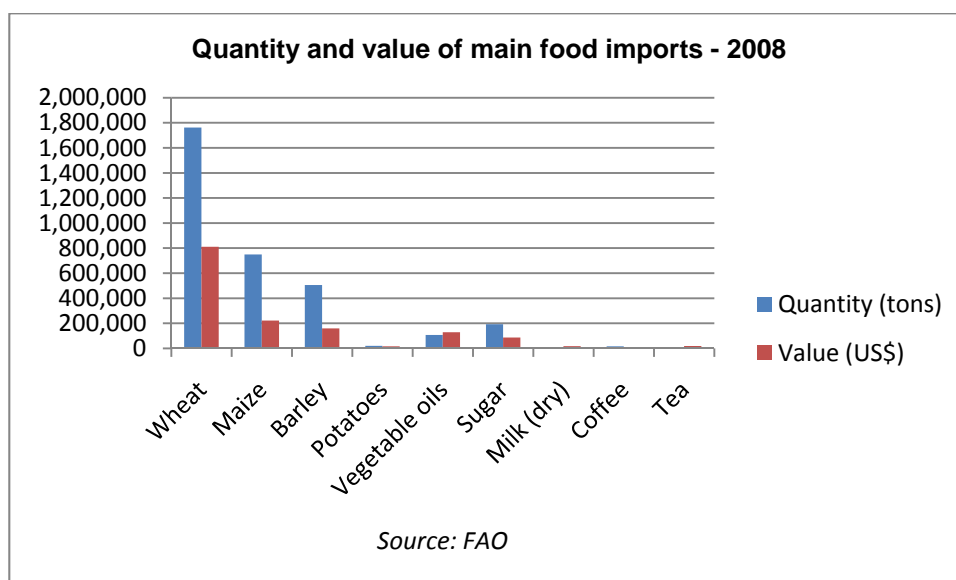
The fisheries sector employs around 25,000 people. The total catch increased from 84,800 tonnes in 1990 to 105,000 tonnes in 2007. Seafood is Tunisia's second most valuable food export after olive oil.

## **III - FOOD IMPORTS, MARKET SUPPLY AND PRICES**

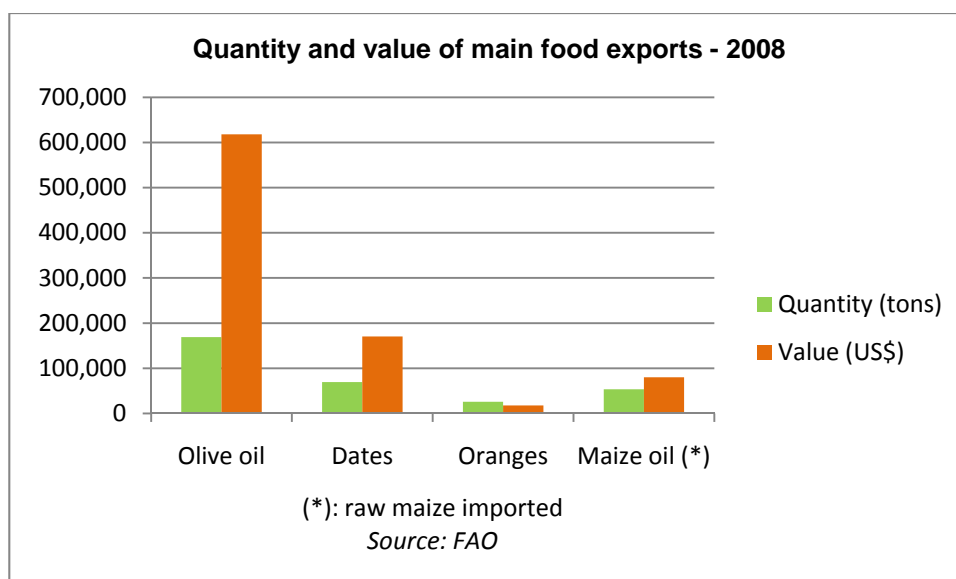
Food availability in key staples in Tunisia is ensured from complementary imports to fill consumption requirement gaps, and by the government's management of security stocks.

### **3.1 – Food imports and exports**

The main food imports are cereals (wheat, maize and barley), sugar and vegetable oils (soybean essentially). On average, cereal imports cover about half of consumption requirement. Maize and barley are used for animal consumption essentially. Maize is also processed locally into oil and re-exported.



Food exports are dominated by olive oil, with smaller quantities of dates and citrus fruits also exported.



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 quite low in Tunisia (11.2, similar to Libya but higher than Egypt at 6.9). Tunisia is also considered to be among the North African countries the most vulnerable to food-price shocks because of the high quantities imported and relatively weak fiscal balance to cover the cost<sup>17</sup>.

### **3.2 – Importation, distribution and sale of cereals and oils**

The government is controlling the purchase and storage of wheat, and its despatch to flour mills, through the Cereals Office<sup>18</sup>. Further processing is done by private agro-food industries, and distribution and sale through wholesale and retail traders. The farm-gate price of wheat and wheat-based products is set by the government and does not necessarily reflect production costs (see paragraph 3.4.2 below).

The case of olive and vegetable oils is particular in Tunisia. The government has taken measures to favour the exportation of locally-produced olive oil (a strategic production owing to its economic and social role), while subsidizing imported vegetable oils (mainly soybean and sunflower oils) for domestic consumption. The trade balance is largely positive due to higher prices of exported olive oil compared to the cost of imported vegetable oils, and the benefits are used to finance the subsidies on the latter. The performance of the olive oil trade, however, is highly dependent on the level of the harvest (fluctuating year-on-year) and on the level of demand on international markets.

### **3.3 – Retail trade**

A large part of trade activities remain traditional and handled by small traders, although some large agro-food industry and distribution companies have emerged. Retail distribution, especially in the cities, has been affected by rioting and looting at the end of 2010/early 2011. The conflict in Libya has also hampered cross-border trade and affected Tunisian traders, including many petty traders operating in the informal sector<sup>19</sup>.

The type and extent of other businesses with Libya that may be affected by the conflict are unknown.

<sup>17</sup> FAO. Food Security in the Middle East and North Africa region. GIEWS. 3 March 2011.

<sup>18</sup> *Office des céréales*.

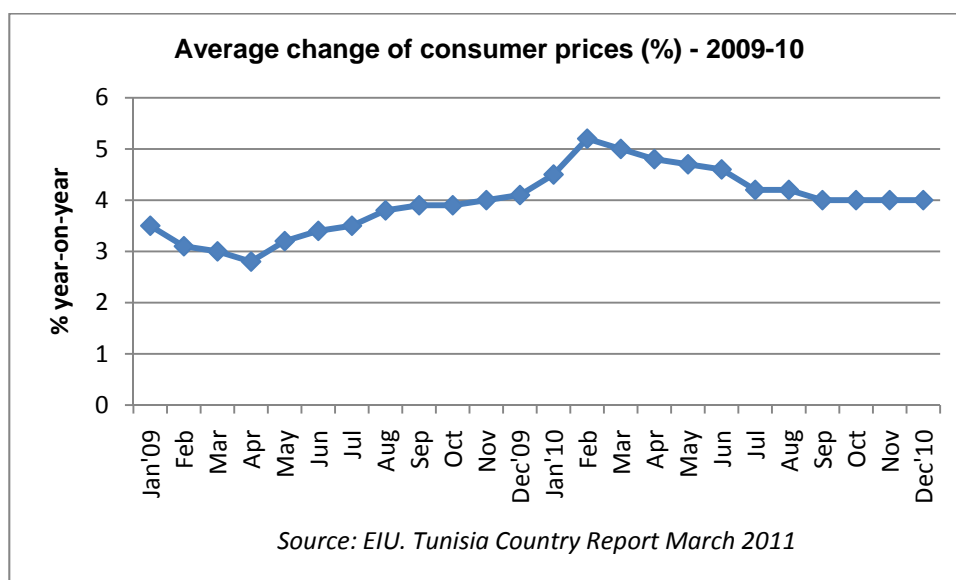
<sup>19</sup> WFP/FAO. Rapid Assessment of Tunisian Returnees. March 2011.

### 3.4 – Food prices

#### 3.4.1 - Inflation

Consumer price inflation fluctuated between 2.7% and 4.5% between 2003 and 2009. Inflationary pressures have been limited by government subsidies on cereals, vegetable oil and (since 2004) fuel, relatively tight monetary policies, and the efforts of local manufacturers to keep prices down to fight competition from European imports. However, the basket of goods and services on which the government bases its Consumer Price Index calculations was devised in 1990 and weights food prices at 41% of the total, which may no longer be typical of most households' spending.

Inflation rose to 5.4% in 2010 due to higher oil and non-oil commodity prices and a fall in agricultural output, which increased the cost of wheat imports. Inflation is expected to be 4.9% on average in 2011 as prices of basic food items and oil continue to increase. In spite of supply-chain bottlenecks arising to work strikes and global commodity prices, recent inflation is somewhat contained by reduced domestic demand.



The rise on international markets was steep between June 2010 and early 2011<sup>20</sup>, increasing the cost of imported wheat, rice, maize and other grains. Wheat is a major staple in Tunisia and often almost half of the wheat consumed is imported.

The price on international markets of other imported commodities, including sugar<sup>21</sup> and edible oils, also rose dramatically. Inflation trends suggest that the rise has been passed through to consumer prices<sup>22</sup>. Higher

<sup>20</sup> 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. Source: FEWSNET. Executive Brief: Food Price Trends in the Middle East and North Africa. USAID. March 11, 2011.

<sup>21</sup> 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.

<sup>22</sup> FEWSNET. Executive Brief: Food Price Trends in the Middle East and North Africa. USAID. March 11, 2011.

international maize prices are also passed through to consumers indirectly by raising animal feed prices, meat prices, and the price of many processed commodities<sup>23</sup>.

### 3.4.2 – Government control of food prices (subsidies)

The government has set up a General Compensation Fund<sup>24</sup> responsible for stabilizing key staple food prices through subsidies, including: wheat-based products (flour, bread, couscous, pasta), imported vegetable oils (soybean, maize oils) and sugar. At particular times of the year (e.g. religious events and Ramadan) or in the event of critical shortage, subsidies are also applied temporarily on other products such as milk and meat. The Government is also maintaining security stocks of these various commodities<sup>25</sup>.

Wheat products represent the largest amount of subsidies, followed by vegetable oils. The rise of prices of these items in 2007-08 and 2010-early 2011 has increased the burden on the government's budget, but subsidies have cushioned households against higher expenditures and possible decrease of consumption of these food items. The price of uncontrolled commodities has increased however (animal products in particular, owing to the rise of animal feed), partly contributing to the discontent manifested by the population at the end of 2010

## **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 at national level (less than 2%). 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 and access to other transfers in cash or in kind, and (ii) market prices (described in section 3.3 above).

### **4.1 - Household income levels and sources**

#### 4.1.1 – Poverty

The latest World Bank poverty assessment dates back to 1994. However, available information indicates that poverty has decreased over the past 30 years. The poverty rate in 2010 is estimated at 7%<sup>26</sup> and is one of the lowest in North East Africa. This results reflects overall economic growth as well as public investment in infrastructure and human capital<sup>27</sup>.

Poverty is much higher in rural areas (14%) than urban areas (4%), and the south and the west of Tunisia are deemed the poorest regions. This situation is related to both differing agro-ecological conditions (desert in the south, littoral coast in the north-east) and location of economic activities. About 85% of the industries and 87% of employment in this sector are located in the coastal governorates.

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<sup>23</sup> The World Bank. Food Price Watch. February 2011.

<sup>24</sup> *Caisse générale de compensation.*

<sup>25</sup> WFP. *La sécurité alimentaire en produits de base. Cas de la Tunisie.* BHMT Consulting. March 2009.

<sup>26</sup> The 7% poverty rate comes from a Note produced by the World Bank in September 2010. However, a rate of 4% is mentioned in the website of the World Bank for 2010. The difference may be due to the type of poverty line being used. The 4% rate is based on the national poverty line, which may be lower than the 'standard' poverty line.

<sup>27</sup> World Bank. *Note de présentation de la Tunisie.* September 2010.

Based on statistics collected by national authorities in a 2005<sup>28</sup>, three main groups of the population were distinguished according to their occupation and related income and expenditure levels:

- professionals, pensioners, and liberal professions (highest income and expenditures levels);
- industry and business owners, salaried workers;
- farmers, farm and non-farm labourers, independent, and the unemployed (lowest income).

Two poverty levels were defined on the basis of expenditures:

- absolute poor: less than Tunisian Dinars TND400/person/year (equivalent to about US\$0.9/person/day);
- vulnerable: between TND 400-585/person/year (equivalent to about US\$0.9-1.3/person/day).

In 2005, 11% of the population were poor or vulnerable, compared to 27% in 1990.

#### 4.1.2 - Food expenditures

In 2005 food expenditures represented more than 1/3 of total expenditures (35%) at national level, showing a slow decline compared to 10 years before (38% in 1995)<sup>29</sup>. The share of food expenditures was higher among rural households: 43% compared to 33% among urban households. Conversely, the amounts of total and food expenditures of rural households were almost half the amounts of urban households.

The share of food expenditures was also much higher among the poor and vulnerable (about half of total expenditures), while the absolute amount of food expenditures was about ¼ lower than the average.

#### 4.1.3 – Employment and income sources

The labour force numbered 3.6 million in 2007, of whom ¼ were women.

The unemployment rate is estimated at 13%<sup>30</sup> of the labour force in 2010, a proportion stable since 2003<sup>31</sup>. Unemployment affects primarily the young (30% among the 20-24 years old) and graduated students (25% unemployed). Unemployment also varies by region, exceeding 20% in the north-west and 25% in the south-west.

The heavy involvement of the state in many sectors of the economy has constrained the expansion of the private sector, and slowed down the creation of jobs. In 2006, it was estimated that informal employment concerned some 38% of the labour force<sup>32</sup>.

Unemployment is characterised by 3 main factors:

- (i) a high number of graduated students enters the labour markets;
- (ii) the existing economic sectors (textiles, agriculture, food processing, car equipment, tourism etc.) mostly employ a low skilled manpower and do not generate enough demand for more highly qualified employees; and
- (iii) enterprise creation in the most innovative sectors, more demanding of knowledge, is insufficient.

The main sources of employment are agriculture, manufacture, construction, public administration, and tourism:

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<sup>28</sup> National Statistics Institute (INS) – Quoted in: WFP. *La sécurité alimentaire en produits de base. Cas de la Tunisie*. BHMT Consulting. March 2009.

<sup>29</sup> WFP. *La sécurité alimentaire en produits de base. Cas de la Tunisie*. BHMT Consulting. March 2009.

<sup>30</sup> Economists characterize unemployment rates below 5% as economically acceptable rate.

<sup>31</sup> EIU. Tunisia Country Report, March 2011.

<sup>32</sup> International Organization for Migration (IOM). *Intra-Regional Labour Mobility in the Arab World*. 2010.

- agriculture: between 16%-22% of the total workforce (576,000-792,000 persons in 2007), including part-time workers but not systematically counting members of farmers' families engaged in agriculture activities;
- manufacturing sector (textiles and leather, mechanical and electrical industries, food processing, construction materials, and chemicals): roughly 20% of the labour force (720,000 persons in 2007);
- construction industry: large workforce (12%), much of which is engaged on a temporary basis; the sector has grown by an average of 5% a year since 2002;
- public sector: over 20% of the workforce; and
- hotel and catering sub-sector, driven principally by tourism: 75,000 jobs directly and 220,000 indirectly.

Large numbers of people are also employed on a casual or seasonal basis, especially in agriculture. There is, moreover, a large informal economy, whose turnover is estimated to be equivalent to at least 15% of GDP<sup>33</sup>.

The return of an estimated 70,000 Tunisian migrants from Libya will put pressure on the labour market, particularly in the south and west regions where many are originating. The conflict in Libya has also affected economic exchanges between the 2 countries, including cross-border trade, manufacturing and agriculture export activities. Lay-off of workers in the manufacturing and agricultural sector has been reported but not quantified<sup>34</sup>.

The political turmoil early 2011 and the incoming elections for the general assembly to develop a new constitution scheduled in July, are affecting the tourism sector. As a result, many seasonal job opportunities will be unavailable this year, at a time when agricultural activities and work prospects are also at a low level.

The government sets minimum wages for workers in agriculture (SMAG) and industry (SMIG)<sup>35</sup>. Minimum wages have risen by 3.4% a year since 2003, compared with average consumer price inflation of 3.2%, thus globally maintaining households' purchasing power for basic consumer goods. The SMIG in 2010/11 is TND220 per month (about US\$154).

#### 4.1.4 – Migration and remittances

Disparities in living standards are found between the prosperous north-east coast and the under-developed interior and south, and between the towns and the rural areas. As a result, there has been steady migration towards the northern and eastern coastal regions.

Unemployment, especially among the young, is one of the major push factors for migrants, internally and externally. In this respect, worker out-migration from Tunisia and shares many characteristics of similar movements in neighbouring countries. Some of these key characteristics are summarized in Box 1.

##### **Box 1 –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.

<sup>33</sup> EIU. Tunisia Country Profile, 2008.

<sup>34</sup> WFP/FAO. Rapid Assessment of Tunisian Returnees. March 2011.

<sup>35</sup> SMAG: *Salaire minimum agricole garanti* – SMIG: *Salaire minimum inter-professionnel garanti*

- 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.

Remittances have risen strongly in recent years and represented more than 5% of Tunisia GDP in 2007: about US\$1.3 billion in cash and the equivalent of US\$400 million in kind<sup>36</sup>. However, in the absence of dedicated survey or study on the issue, the specific role played by remittances for household food security is not fully clear, besides increasing the level of income available for food purchases.

#### **4.2 – Government social assistance and food subsidies programmes**

Progressive social policies in the past years have helped raise living conditions relative to other countries in the region<sup>37</sup>. As mentioned (paragraph 3.3.2), the government is subsidizing staple foods, but it has also ensured regular increases in minimum wages in order to protect consumers’ purchasing power. A fuel subsidy was introduced in 2004, which has proved to be a heavy burden on the public finances as oil prices are increasing. In response to the high food prices in 2007/08, the government:

- reduced taxes on wheat;
- kept price controls on strategic staples;
- increased supply using cereal stocks; and
- stepped up cash transfers to needy households.

Considering the level of price increase of different commodities, government subsidies, and the adjustment of the minimum salary, the average consumer’s purchasing power has remained pretty stable for basic staples (wheat-based products, vegetable oils) as well as for dairy products during the past years. However, the purchasing power of the lower salary categories (including the poor and vulnerable) has deteriorated owing to the sharp rise of cereal prices (not fully compensated by increased subsidies and salaries) and high share of cereals in their diet<sup>38</sup>.

A recent rapid survey indicated that in some of the poorest regions, assistance provided through the *Union Tunisienne de la Sécurité Sociale* (UTSS) had been suspended for lack of resources in view of increasing demand<sup>39</sup>. In the region of Kairouan, needy families<sup>39</sup> were receiving a social allowance of TND210 per month (US\$147).

In March 2011, the interim requested WFP to assist in developing safety nets, besides helping in meeting the needs of migrants returning from Libya stranded at the border. The government identified 185,000 households suffering from increased poverty as a result of the economic decline and the loss of jobs in Libya. The Ministry of Social Affairs is already providing cash vouchers to some 135,000 households (US\$50 per household per month) and WFP’s support was asked to cover the remaining 50,000 families living in 7 governorates with high prevalence of poverty in the north-west of the country.

<sup>36</sup> EIU. Tunisia Country Profile, 2008.

<sup>37</sup> Although economic policies have not enabled the creation of sufficient jobs and employment.

<sup>38</sup> WFP. *La sécurité alimentaire en produits de base. Cas de la Tunisie*. BHMT Consulting. March 2009.

<sup>39</sup> WFP/FAO. Rapid Assessment of Tunisian Returnees. March 2011.



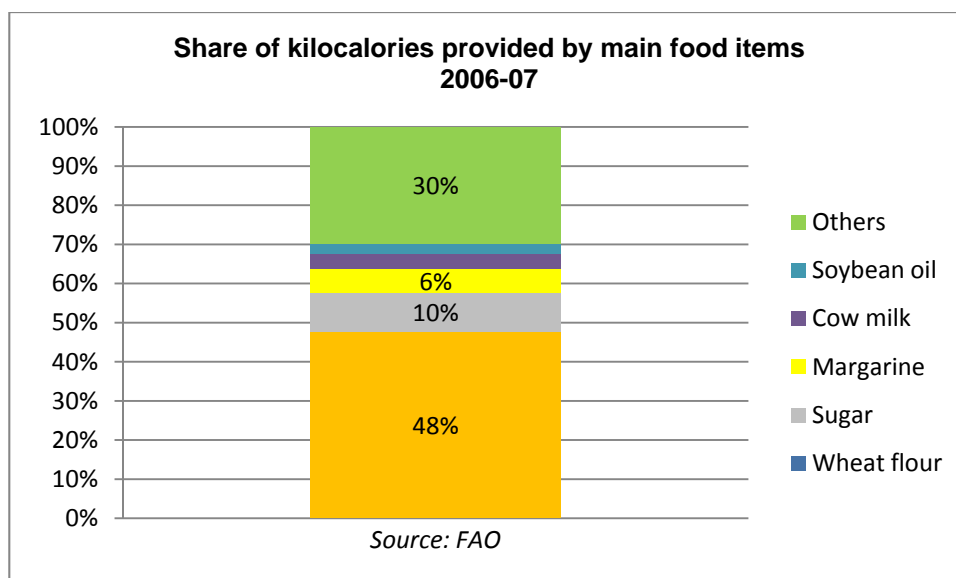
## **V - HOUSEHOLD FOOD CONSUMPTION AND UTILIZATION**

Food utilization, manifested in the nutritional status, is influenced by the 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 was 3280 kilocalories per person per day in 2008. The share of cereals is high (64% total calories) while the share of fat is low (24%). These figures have been relatively stable since the past 10 years, possibly reflecting a stage where the quality of the food consumed varies more than the quantities.

Wheat (bread, couscous, pasta) provides almost half of the calories and sugar 10%. Margarine and cow milk provide 6% and 4% of total calories only. However their share has increased over the past 15 years.



Due to the government support system to olive oil exports and subsidies on imported vegetable oils, approximately 1/3 of the oil consumed by households is from locally-produced olive oil and 2/3 from imported vegetable oils.

While animal products consumption has increased for all groups of the population over the past 10-15 years, the intake varies according to location and to poverty levels. Households in rural areas consume twice less quantities of dairy products than households in urban areas (53 kg versus 100 kg in 2005)<sup>40</sup>. A similar pattern is observed for meat. As the price of red meat has increased faster than the price of poultry meat, the latter is more frequently consumed by the poorest population groups. Poor and vulnerable households also consume lower amounts of vegetable oil than richer households.

<sup>40</sup> WFP. *La sécurité alimentaire en produits de base. Cas de la Tunisie*. BHMT Consulting. March 2009.

## **5.2 - Nutritional status**

Data from the Multi-Cluster Indicator Survey of 2007<sup>41</sup> indicated that 2.3% of children under-5 were wasted (with no major difference between urban and rural areas) and 6% stunted, with a higher prevalence of stunting in rural (9.7%) than urban areas (4.1%). Stunting rates were also higher in Kasserine (in centre-west area, with 13.6% including 3% severe), south-west (10.6% including 4.3% severe) and north-west (8.6% with practically no severe form) regions than elsewhere,

Stunting has significantly decreased compared to 1988 when it affected 18.2% of children under-5, and compared to 2000 when it reached 12.3%. Progress was noted in particular in Kairouan and Sidi Bouzid regions, but the prevalence remained practically unchanged in Kasserine region. Stunting rates were linked with the level of education of the mother, with uneducated mothers more likely to have stunted children than others.

Overweight is a rising concern, with about 6% of children under-5 overweight in 2007 in both urban and rural areas. Overweight rates tended to be higher in the northern regions than other regions. Updated information on the nutritional status of adults is also unavailable but already 17% of adults was obese in 1996-97<sup>42</sup>.

Similarly, the levels of micronutrient deficiencies are unclear. The majority of households were consuming iodized salt however.

## **5.3 - Child feeding practices**

While about 90% of infants are breastfed, the 2007 MICS showed that only 6% were exclusively breastfed until 6 months of age, reflecting a precocious introduction of complementary food. The rate of exclusive breastfeeding has sharply decreased compared to the 2000 MICS (46%) but the different timing of the surveys (summer versus winter) may have contributed to this difference<sup>43</sup>.

Only ¼ of children under 1 year of age were considered to benefit from adequate feeding practices in 2007. Children aged less than 12 months in the south-west region were more likely to be adequately fed than children elsewhere (39%). The lowest proportion of under-1 children adequately fed was found in the north-east region (13%).

## **5.4 – Health**

Vaccination rates for measles and tuberculosis are around 98%. Lower levels of vaccination coverage were reported in Kasserine and Kairouan regions (about 88% coverage) in the 2007 MICS, though improving compared to 2000.

About 15% of under-5 children had suffered from diarrhoea during the 2 weeks preceding the MICS in 2007. The prevalence was higher in Kasserine, north-west and north-east regions than elsewhere. Some 6% of children had presented an acute respiratory infection during the recall period, with also a higher prevalence among children in the north-west region (12%). Diseases were more frequent among children of uneducated mothers.

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<sup>41</sup> UNICEF/Ministère de la Santé Publique. Enquête sur la santé et le bien-être de la mère et l'enfant. MICS 3. Rapport final. 2007.

<sup>42</sup> FAO. Tunisia Food Security Profile 2011. – The source of information on adult anthropometric results is not indicated.

<sup>43</sup> UNICEF/Ministère de la Santé Publique. Enquête sur la santé et le bien-être de la mère et l'enfant. MICS 3. Rapport final. 2007.

Infant mortality fell from 132 per 1,000 live births in 1960 to 18 in 2009. Under-5 mortality rate has also decreased, reaching 21 per 1,000 live births (compared to 50 in 1970).

As a result of better living standards, higher levels of education, the promotion of women's rights and the success of birth-control programmes, the average number of children per woman declined from 5 in 1980 to 2 in 2011<sup>44</sup>. The maternal mortality ratio was 60 per 10,000 live births in 2008. Some disparities were noted in the 2007 MICS on prenatal health coverage according to locations. While ¾ of pregnant women in urban areas benefited from at least 4 prenatal visits, only ½ of pregnant women in rural areas did. The lowest proportions of full prenatal visits were observed in Kairouan, Kasserine, north-west and Sidi-Bouزيد regions. Similarly, a higher proportion of pregnant women in rural areas gave birth unattended by medical personnel (11% versus 2% in urban areas) as well as in Kasserine (29%) and Sidi Bouزيد (21%) regions<sup>45</sup>.

The prevalence of HIV and AIDS among adults is deemed very low at 0.1% in 2009.

More than 80% of the population benefits from health insurance coverage through 2 national assistance systems<sup>46</sup>.

## **5.5 – Water and sanitation**

Virtually all homes in urban areas have piped water, compared to about 50% in rural areas. Access to improved drinking water sources is estimated at 99% in urban areas and 84% in rural areas.

More than 80% of households had access to adequate sanitation facilities in 2008, with again some disparities between urban and rural areas: respectively 96% and 64%.

## **VI - CONCLUSIONS ON THE HOUSEHOLD FOOD SECURITY SITUATION**

### **6.1 - Severity of household food insecurity**

The Global Hunger Index of the International Food Policy Research Institute (IFPRI) classifies Tunisia in the "low hunger" category, based on the combination of the proportion of undernourishment in the population<sup>47</sup>, the prevalence of underweight children under-5, and the under-5 children mortality rate.

The average dietary energy available for consumption (based on Food Balance Sheet) was high at 3280 kcal/person/day in 2008. While the domestic production of cereals and fats does not meet consumption requirements at national level, imports are sufficient to fill the gap, and physical access to markets and shops is not a problem.

Poverty rates are estimated at 7% in 2010, down from 11% in 2005 and in regular decline since 1990. Most of the food consumed by households is purchased, but the price control and subsidies maintained by the government on key staples including wheat-based products and vegetable oils, and the regular rise in minimum wages, have protected the purchasing power of households for most food items.

Stunting rates, though not updated recently, seem to indicate low levels of chronic malnutrition among children under-5. Rather, overweight and obesity are growing concerns, mostly related to urbanization and

<sup>44</sup> EIU. Tunisia Country Profile, 2008 – CIA. Tunisia Country Profile, March 2011.

<sup>45</sup> UNICEF/Ministère de la Santé Publique. Enquête sur la santé et le bien-être de la mère et l'enfant. MICS 3. Rapport final. 2007.

<sup>46</sup> World Bank. *Note de présentation de la Tunisie*. September 2010.

<sup>47</sup> 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 1% of undernourishment.

associated changes in food consumption patterns (more processed food high in fat and sugar) and physical activity.

As such, the food security situation in Tunisia is not deemed alarming at national level. The most severe manifestations probably translate into micronutrient deficiencies among vulnerable individuals due to the consumption of a cereal-based, monotonous diet, rather than acute or chronic under-nutrition resulting from low amounts consumed.

## **6.2 - Main characteristics of food-insecure households and individuals**

Government subsidies applied to key staples enable to maintain prices at a relatively stable level (except cereals which have increased more rapidly). Consequently, income levels and poverty are the main determinants of household food security given the dependence on market purchase for practically all food consumed.

- Poor and vulnerable households:

- Households who primarily *depend on agricultural activities or on low-skilled independent work* for their income, and *the unemployed*, are deemed poor and vulnerable and thus among the most likely to be food-insecure. Their purchasing power has deteriorated due to the sharp rise of cereal prices not fully compensated by subsidies. These households also dedicate half of their expenditures to food. They are likely to decrease the consumption of expensive products, including meat and other micronutrient-rich items such as vegetables, thus decreasing the quality of their diet.
- Within the unemployed category, a number of *young people and graduate students* may be food-insecure due to the high rates of unemployment (30% unemployed among the 20-24 years old and 25% among graduate students).

- Households of returned migrants from Libya:

Migrants typically come from impoverished households and the unemployed. There is no information enabling to assess the food security situation of remittance-receiving households and the role played by remittances in securing access to a diversified diet. However, the crisis in Libya has caused the return of a large number of migrants (70,000 estimated). Cash savings that have been brought back (for those who could withdraw funds before leaving and who could spare funds from payments at the various checkpoints) will provide support for a while, but the suspension of this source of income is likely to result in increased poverty - and thus food insecurity - among households of returned migrants from Libya.

- Households who depend on trade with Libya for their livelihoods:

These households are also being affected by the conflict in Libya, especially petty traders at the border, and possibly other businesses. Households involved in these activities may face hardship in the near future if they cannot expand their income base.

- 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 Tunisia 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 Tunisian 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).

- Households engaged in tourism-related activities:

If civil disturbances resume in Tunisia with high levels of localized violence, both permanent and seasonal workers engaged in hotels, restaurants and other tourist-related activities will lose their main source of income and may also become at risk of food insecurity.

### **6.3 - Location of food-insecure households**

- North-west, south-west and centre-west rural areas:

Poverty is concentrated in north-west and south-west rural areas, hence these locations are likely to also present the highest prevalence of household food insecurity. Stunting rates and a number of nutrition and health-related indicators were also worse in these regions and in Kasserine (centre-west) region than elsewhere in 2007.

Poverty is about 3 times higher in rural than urban areas (14% versus less than 4%). Unemployment exceeds 20% in the north-west and 25% in the south-west<sup>48</sup>.

Most social indicators (education, health, life expectancy, child mortality, income, access to piped water and electricity, and employment) show that the most progress has been made in the towns of the north-east coast and the least in the villages of the interior. Unsurprisingly, out-migration, both internally towards north-east areas and externally towards Europe mostly and other Arab states, also originates mostly from southern areas.

- Poor urban periphery neighbourhoods:

Although no information is available on the situation of households in periphery neighbourhood of large towns, particularly Tunis, many impoverished migrants from rural areas are moving there to search work. Their conditions may be worse than other urban residents and they may be food-insecure as well.

- Areas where camps have been set up to host refugees from Libya :

These areas may also see an increase of food insecurity among the local population, in particular if food prices and competition for jobs increase.

### **6.4 - Number of food-insecure people**

In the absence of dedicated household food security assessment, and considering the relationship between poverty and economic access to food, the number of food-insecure people can be roughly approximated by the level of poverty. It is understood that food insecurity among the poor in Tunisia would mostly translate in a low diversified, micronutrient-deficient diet rather than in significant shortages of food. Based on 7% poor in a 10.5 million population, the number of possibly food-insecure people would be 735,000 persons.

A proper household food security survey is necessary to estimate the additional number of people who may have become food-insecure as a result of the most recent events in the country, including lower salary or loss of job owing to civil disturbance and depressed economic activity and tourism, rapid rise of cereal and other food prices, and influx of migrants and refugees from Libya.

The estimated figure of food-insecure people may rise in the short-term due to the return of the estimated 70,000 migrants from Libya and the loss of income and livelihoods of various groups formerly engaged in trade and other business activities with Libya. In the medium-term, should the camps established along the

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<sup>48</sup> EIU. Tunisia Country Profile, 2008.

border to accommodate Third Country Nationals and Libyans seeking refuge in Tunisia expand or persist, a number of people living at the margin of poverty may become food-insecure.

#### **6.5- Key information to collect in a rapid Emergency Food Security Assessment (EFSA)**

A rapid EFSA has already planned in consultation with the Government in some regions<sup>49</sup> identified as the poorest and also likely to have been affected by the Libya crisis. Based on the above results, some of the key information needed to estimate the levels of food insecurity (besides demographic and location data) include:

- food consumption patterns
- main sources of income (distinguishing in particular agricultural/industry/services, regular/irregular, skilled/unskilled, activities benefiting from SMAG or SMIG, tourism-related, Libya-trade related)
- number of employed household members
- main sources of expenditures
- amount of food expenditures, and the share of total expenditures (qualitative estimation at least)
- number and type of migrant members (location, seasonal, permanent)
- level and regularity of receipt of remittances
- source(s) and level of credit or debt and main reasons for indebtedness
- ownership of productive and wealth assets (selection of relevant assets to be done)..

For each of these data, any recent changes should be ascertained, particularly in relation to the civil unrest at the end 2010/early 2011, the rapidly rising food prices, the general economic downturn, and the Libya conflict.

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<sup>49</sup> Kasserine, Sidi Bouzid and Kairouan in the centre-west

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