



# CAIRO EGYPT

# FOOD SYSTEM SUSTAINABILITY ASSESSMENT

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# CONTEXT AND OBJECTIVES

## CONTEXT

- In a world with limited resources and an ever-increasing population, food is an essential issue. The transition to more sustainable and equitable agricultural and food practices - essential for the survival of biodiversity and adaptation to global warming - must be considered both locally and globally. Strengthening sustainable food is a challenge that must be approached in a systemic way, considering all the components and actors of food systems. Local authorities and governments must seize this transition to build food-producing territories with the actors of the food system and thus guarantee access to quality food for all.
- Although cities around the world are gradually taking up the food issue and are increasingly communicating on the public, private or associative actions underway, there is still little information on public policies and local initiatives in favour of sustainable food systems in Mediterranean cities.

## LET'S FOOD

- Let's Food is a French based NGO aiming to support territories in building sustainable and resilient food systems through territorial cooperation and the exchange of good practices at local, national and international levels.
- The NGO has 3 specific objectives:
  - Support the development of sustainable local food policies in France and across the world.
  - Promote and operationalise the sharing of knowledge and initiatives among the different actors of the food system in order to accelerate a food and agroecological transition on a global scale.
  - Raise awareness and provide training on territorial sustainable food systems in order to strengthen the skills needed to set up sustainable food policies.

## ZOOM: ASSESSING THE SUSTAINABILITY OF A FOOD SYSTEM

The French NGO Let's Food has developed a methodology to analyse the sustainability of a food system. This is based on Nicolas Brucas' definition built from the definitions proposed by the FAO, Bioversity International and IPES Food (2015):

"Sustainable food systems:

- Protect the environment without depleting non-renewable resources and biodiversity and without polluting ;
- Provide access for all to sufficient, safe, nutritious and culturally acceptable food;
- Are based on an inclusive economic system that creates jobs for all and reduces inequalities of power for a fair distribution of added value;
- Promote social cohesion and respect for diversity;
- Restore confidence in the system and allow citizens to participate in its evolution".

The proposed methodology aims to analyse the connections within the value chain in the light of the dimensions of sustainable development in order to identify the main challenges.

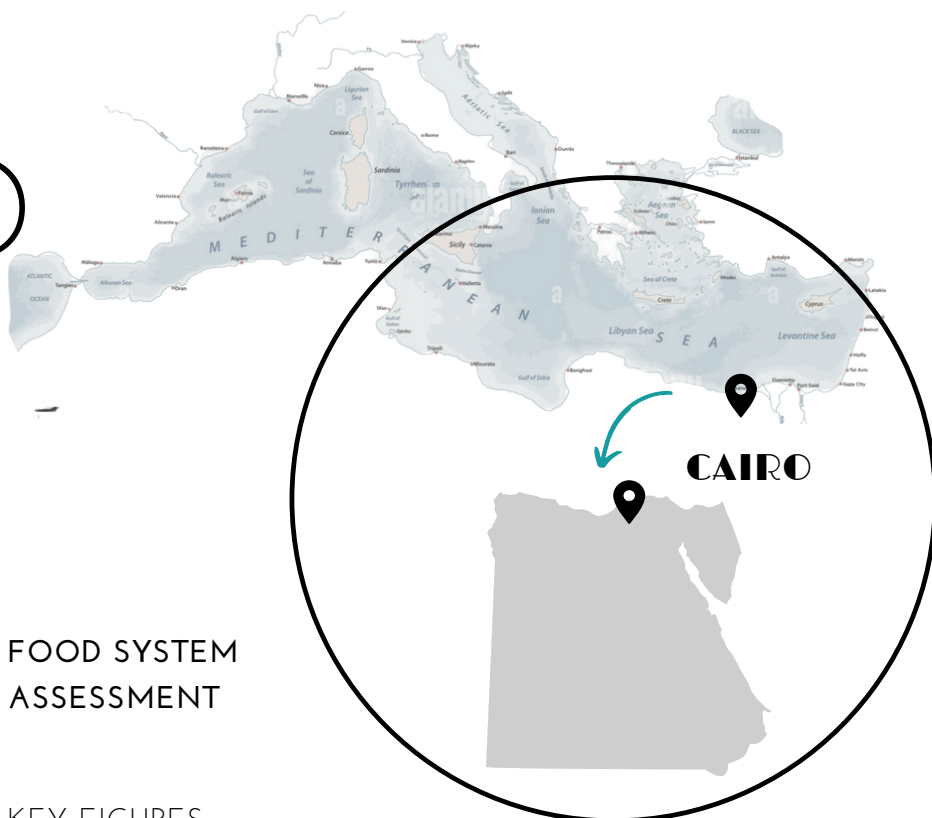
# CAIRO

## EGYPT

- 1 million km<sup>2</sup> with 109.3 million inhabitants (2021)
- Democratic republic, presidential regime

## CAIRO

- City of Cairo: 606 km<sup>2</sup> for 10 million inhabitants (2021),
- Cairo agglomeration: 3,085 km<sup>2</sup> for 21.3 million inhabitants (2021),
- Governor of Cairo is Khaled Abd El Aal
- Mayor of Cairo is Abdel Qawi Khalifa



## FOOD SYSTEM ASSESSMENT

### KEY FIGURES

Cairo is one of the largest metropolises in the world and the second most populous metropolis in Africa. It is considered as the political and cultural centre of North Africa and the Arab world. The city is located in the Nile Delta, traditionally an agricultural area within the Fertile Crescent.

## I. A diet dependent on wheat imports

*We have targeted 4 issues: food autonomy and resilience of the territory, physical, economic and cognitive access to quality food.*

- National self-sufficiency in wheat: 45% to 50% (2021) (9),
- Change in the obesity rate between 2007 and 2016 on a national scale: 24.6% to 31.1% (9),
- Share of Egyptian population living below the poverty line: 27.8% (2022) (11),
- Share of budget spent on food in Egypt: 40% (2016) (13),
- Share of population living in food insecurity in Greater Cairo: 25% (2011) (13).

In 2022, more than a quarter of the Egyptian population was living below the poverty line (11): low purchasing power has a direct impact on access to food and thus on household food security. Refugees coming from Syria, Libya and other Arab countries affected by the regional wave of uprisings in 2011 are particularly affected food insecurity issues. The State subsidises wheat so that it is accessible to as many people as possible. In a context of food inflation of 38% in 2022, this aid has become essential (36). Poor access to quality food has a direct impact on the health of the Egyptian population: in 2019, 40% of the population was obese (44).

Egypt was almost self-sufficient in the 1960s, but the increase in population, global warming and the degradation of natural resources mean that the food needs of the inhabitants cannot be met today (17). Egypt depends on wheat imports (12 million tonnes imported for 20 million tonnes consumed). These figures fell drastically in 2022 as a result of the reserves that were made in anticipation of the problems posed by the war in Ukraine (38).

In addition, there has been an increase in out-of-home catering, meat consumption and processed products, notably due to changes in the pace of life, especially in urban areas (9).

90 to 95% of food shops are small local shops, but large and medium-sized retailers are increasingly frequented by households in Cairo. As a result, consumers have access to richer (fat, sugar, salt) but more regulated processed food with higher health standards. Dense road traffic combined with a lack of development of soft mobility can limit access to a diversity of food outlets for consumers who often fall back on nearby shops, regardless of the quality offered (16).



## II. Agriculture: a powerful sector of the Egyptian economy

We have targeted 3 issues: agricultural and food production, food processing and food distribution.

- Main agricultural productions in Egypt: cereals, cotton, sugar cane, vegetables, fodder crops and fruits (19);
- Average farm size: between 0.42 and 1.26 hectares (9);
- Share of agricultural land in the total area of the country: 4% (2020) (21);
- Share of the agricultural sector in the country's GDP: 11% (2017) (3);
- Share of Egyptian population working in the agricultural sector: 23% (2017) (3).

In Egypt, the main productions are winter wheat ( $\frac{1}{3}$  of the surfaces), maize, rice and sugar (beet and cane). Poultry activity is particularly developed and the country has also been self-sufficient in dairy products since 2015 (34). Despite a decline in the sector since the 1970s linked to the tertiarisation of the economy, agriculture still employs 23% of the population and contributes 11% of the country's GDP (22) (35). This is essentially explained by the predominance of cash crops dedicated to export (citrus fruits, potatoes, beetroot, onions, grapes, etc.). Food products represented 17% of the country's total exports in 2020 (mainly to the EU, Russia, the Middle East and North Africa) (27) (28). However, Egypt is also home to many food farmers: 70% of farms have less than one hectare of land, making Egypt one of the countries with the smallest area per farmer in the world. These producers face difficulties in making a decent living from their activity: difficult access to credit, lack of storage and processing infrastructures, difficult access to urban markets, climate change affecting yields, etc. There is a real disconnection between the urban market in Cairo and local production: only 1.1% of local products are sold and consumed in Cairo (24). On the scale of Cairo, agricultural production is very low, despite the fact that it is located in the Nile Delta, a traditionally agricultural and fertile area. Cairo's agricultural area is decreasing due to a high rate of urbanisation, particularly linked to the informal settlement of households on agricultural land. Egypt has lost nearly 12% of its agricultural land to urban expansion (shanty towns) (25). Today, agricultural development and the strengthening of all links in the food chain is a priority for the Egyptian state, which included food self-sufficiency in Article 79 of its 2014 constitution (22).

### III. Water, a limited and endangered resource

*We have targeted 3 issues: agricultural and food production, food processing and food distribution.*

- *Contribution of the agricultural sector to total water consumption: More than 80% (2021) (9);*
- *Food waste rate along the value chain: 40% (9) or nearly 4.4 million tonnes (2021) (30);*
- *Share of agricultural land dedicated to organic farming: 2.8% (2016) (31).*

Despite its agricultural potential, Egypt's geographical and soil-climate situation poses several challenges. Much of the country is desert, which explains the concentration of agriculture in the Nile Valley and the North of the country. Episodes of drought and geopolitical tensions over the exploitation of the Nile's water make this resource more fragile. The project of the Grand Ethiopian Renaissance Dam (GERD) is adding to the already existing threat. Today, more than 80% of the water supply is used for agriculture (9). The Ministry of Water Resources and Irrigation launched the "Irrigation Improvement Project" in the 1970s (33) to improve existing irrigation systems. However, this has led to privatisation of water and the emergence of individualised irrigation systems. The Nile is also a victim of pollution, particularly from agriculture. 12 billion m<sup>3</sup> of water are injected into the Nile every year, from the drainage of Egyptian agricultural land, which is laden with pesticides and nitrates (32). The development of organic agriculture could help reduce these impacts on water quality. Egypt is currently the 7th largest African country in terms of area under organic farming with 2.8% of agricultural land under organic farming in 2016 (31). The main organic products are fruits and vegetables and cereals (50). Organic farming in Cairo remains limited but the number of shops offering organic products is increasing. However, the consumption of local organic products is still very low, as the majority of these products are destined for export.

Finally, Cairo has a real problem with the production and management of food waste. About 4.4 million tons of food are lost every year in Egypt (30). This is due to sanitary problems during the storage and transportation of food. The cold chain is often broken and the products cannot be marketed (16).

### IV. Subsidies and public action to be reoriented in order to ensure quality food for all

*We have targeted 4 issues: Place of food issues in the political agenda, participation of all in decision making processes, social cohesion and territorial cooperation.*

- *Cairo Governorate: subsidy policy for basic foodstuffs,*
- *German-Egyptian programme for "Participatory development in urban areas": actions to combat food insecurity.*

Historically, Egypt is a driving regional actor in terms of cooperation on food issues, thanks to its economic and demographic weight. At the international level, Egypt hosts many events on the sustainability of food systems: a workshop organised by the Islamic Organisation for Food Security (2022) (39) or the regional training workshop on strategic planning and policy development for food security organised by the Organisation for Economic Cooperation and Regional Coordination for Food Security (2022). Many international organisations are also supporting the Egyptian government in strengthening Egypt's food systems (42).

At the local level, the Governorate of Cairo acts to combat food insecurity through its policy of subsidising basic foodstuffs, which takes the form of a "ration card" (corresponding to 20% of the products consumed by the poorest households). However, although these public policies make it possible to limit undernutrition, the subsidised products are not always healthy and sustainable (rich in sugar, fat and salt). The German-Egyptian programme "Participatory Development in Urban Areas" is working on food insecurity in Cairo by implementing socio-economic measures to help local communities (26). Despite this, the main sustainable actions implemented in the city are currently carried out by associations or private companies. There is still no real involvement of communities in favour of a more sustainable food system.

## COMPETENCES

### Cairo governorate

- Agriculture
- Education and public service
- Housing
- Social action and health
- Distribution
- Waste collection

## A FEW INITIATIVES FOR SUSTAINABLE URBAN FOOD SYSTEMS



### MOZARE3 - SUPPORT FOR SMALL PRODUCERS

- Company
- Support for small producers to find financing and a place on the market.



### SCHADUF - URBAN AGRICULTURE

- Company
- Development of urban agriculture in Cairo
- Greening of walls and roofs



### FRESH SOURCE - MARKET

- Online market of local products (14)



### FARMERS MARKET NUN CENTER

- Large market of fresh local and/or organic products in Cairo (12)



### TEKEYA - FIGHT AGAINST FOOD WASTE

- Company
- Application to allow hotels and restaurants to sell their surplus food at low prices or to donate it to food banks (8)



### EGYPTIAN FOOD BANK

- Funded by Zakat funds
- Services and programs to provide healthy food for people in need



### NAWAYA - AGRICULTURAL DEVELOPMENT

- Research projects on sustainable and efficient agricultural practices ;
- Support for small-scale agricultural entrepreneurial development in Egypt and the Arab world.



### PARTICIPATORY URBAN DEVELOPMENT PROGRAMME - GIZ AND MINISTRY OF HOUSING

- Actions to combat the negative consequences of climate change in poor and informal urban areas in the Greater Cairo region.



### URBAN GREEN - URBAN AGRICULTURE

- Promotion and support of hydroponics,
- Creation of shared green spaces in urban areas of Cairo.



### SEKEM - PRIVATE COMPANY

- Support for the development of biodynamic or organic agriculture
- Technological support, research and innovation, information relay
- IINTECMED project with the EU to create a network of innovations (10)



### MINISTRY OF SOCIAL SOLIDARITY - TAKAFUL AND KARAMA

- Providing cash to poor households through cash transfer program (families with children, elderly, people with disabilities).
- 2,25 million families across Egypt

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