



TUNIS
TUNISIA

**FOOD SYSTEM
SUSTAINABILITY
ASSESSMENT**

June 2023

Written by Let's Food

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 Bricas' 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.

ZOOM: ASSESSING URBAN FOOD ACTIONS

The initiative assessment aims to:

- Assess the impact of the initiative on the priority sustainability issues of the food system;
- Determine the replicability of the initiatives and the conditions for their replicability;
- Identify success factors and areas for improvement.

The proposed methodology is based on two reference methodologies:

- The "Syannlinnov food project impact assessment guide", produced by Montpellier SupAgro, AOCConsulting and the Carasso Foundation.
- The participatory analysis method implemented by the URBAL (Urban-Driven Innovations for Sustainable Food Systems) project, developed by CIRAD, Montpellier SupAgro, Wilfrid Laurier University, Esta and the UNESCO World Food Chair.

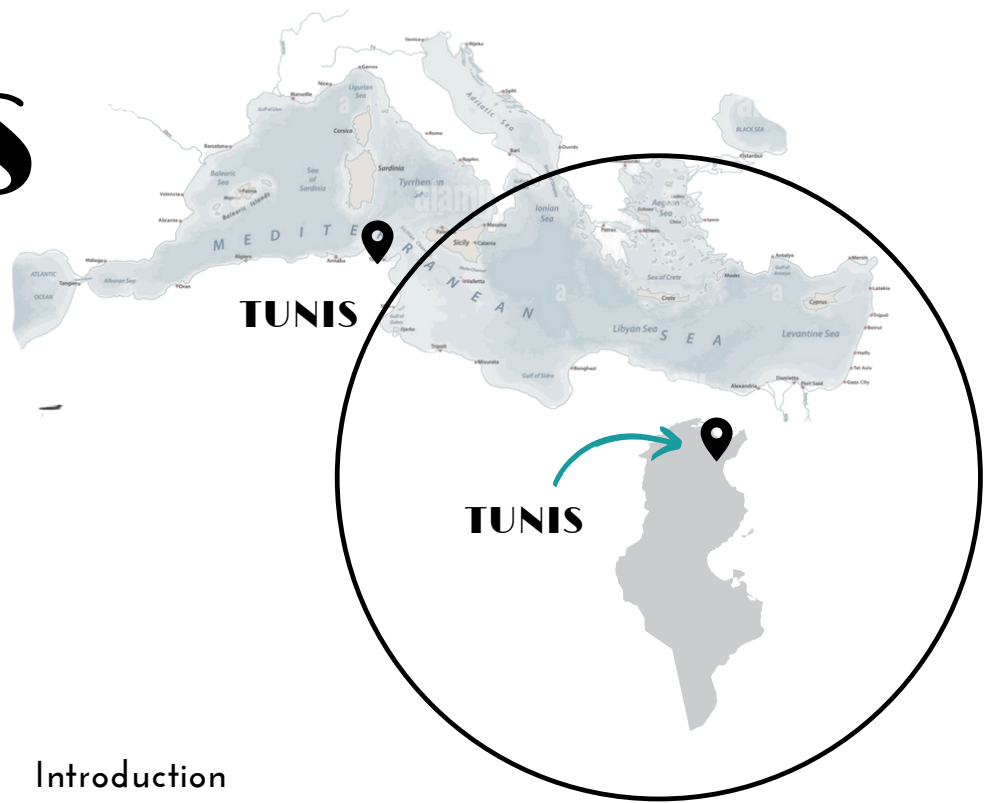
TUNIS

TUNISIA

- 163 610 km² with 12,260,000 inhabitants (2021)
- Presidential republic
- President: Kaïs Saïed (elected in 2019)

TUNIS

- Greater Tunis area: Composed of the Governorates of Tunis, Ariana, Ben Arous and Manouba
- Governorate of Tunis: Composed of 8 municipalities, including the Municipality of Tunis
- Municipality of Tunis: 638,845 inhabitants (2014) over an area of 212 km²
- Mayor: Souad Abderrahim (elected in 2018 - Municipal Council dissolved in March 2023 upon the President's request)



Introduction

Located in the northern part of Tunisia, on the shores of the Mediterranean Sea, Tunis is the capital of the country and is home to 23% of the national population (in the Greater Tunis area). The urban municipality of Tunis itself has a population of 638,845, accounting for 6% of the population of Tunisia. Agriculture plays an important role in the country's economy, contributing 10% to the GDP, despite a territory occupied by the Sahara Desert, ranging from 33% to 40%. Since the Arab Spring of 2011, Tunisia has been experiencing a period of profound political instability, coupled with a severe economic crisis (debt exceeding 100% of the GDP, slowed growth, and increasing unemployment rates).

I. Food and nutritional security

- 63% of the Tunisian population was overweight, with 27% being classified as obese (2017)
- 8% of children under 5 years old experience stunted growth (2015)
- 5.3% of the population in Tunis lives below the poverty line (2015)
- Food prices increased by 15.6% between February 2022 and February 2023
- 63.6% of Tunisia's cereal needs are met through imports (2021)

A triple nutritional burden

In Tunisia, and particularly in Tunis, the public health situation is paradoxical, characteristic of the ongoing nutrition transition:

- **Overweight and obesity:** In 2016, according to the World Health Organization, 63% of the Tunisian population was overweight, with 27% classified as obese. This issue also affects the younger population: in 2018, 17.3% of children under 5 years old and 25% of adolescents were overweight or obese. This has led to an increase in type 2 diabetes: in 2016, 12% of Tunisians over the age of 15 were affected (56).
- **Malnutrition due to deficiencies:** The lack of access to sufficiently diverse food from an early age has resulted in growth stunting for 8% of children under 5 years old in Tunisia. In certain population groups, this rate rises to 15 or even 18% (51).
- **Micronutrient deficiencies:** Deficiencies in iron, vitamin D, and vitamin A are observed among young children and women. At certain levels, these deficiencies can lead to critical health problems (blindness, bone weakness, weakened immune system, etc.) (51).



**JALILA
ELATI**

"The main driver of food insecurity in Tunis is the lack of sufficient income. Making informed choices has become a luxury, and the number one criterion is price. Before 2022, we had a middle class that was living fairly well, but today inequalities are deepening, and the middle class is finding it increasingly difficult to make ends meet."

Jalila Elati, Head of the "Studies and Planning" Department, National Institute of Nutrition and Food Technology.

"On the outskirts of Tunis, there are certain extremely poor neighborhoods where the unemployment rate is high. These are former industrial areas abandoned by companies that have chosen to relocate their production abroad. This area, which I call the 'black belt,' is forgotten by the government. These individuals are sometimes in very alarming food situations."

Jalila Elati, Head of the "Studies and Planning" Department, National Institute of Nutrition and Food Technology.

Different factors can influence food security and the health of the inhabitants of Tunis: economic accessibility to fresh products, level of awareness and food choices that follow nutritional recommendations, availability and stability of the food supply, physical access and distribution of food offerings across the territory, and food safety.

Access to food is degraded by the inflation crisis

In Tunisia, while the poverty rate has been gradually decreasing since the 2000s, the trend has reversed since the COVID-19 health crisis: 15.2% in 2015, 13.9% in 2019, and 16.1% in 2021. The Greater Tunis area is among the least affected by poverty: in 2015, 5.3% of the population lived below the poverty line, with only 0.3% in extreme poverty. However, this should not overshadow significant income inequalities among municipalities: while the northern and eastern parts of the Governorate have poverty rates below 2% (such as La Goulette, Carthage, Cité El Khadra, and La Marcha), the southern and western parts of the territory are marked by increasing poverty (for example, the Tebourba delegation, where the poverty rate reaches 15.2%) (57).

Due to international tensions on energy and food, as well as climate change impacting agricultural yields in Tunisia, food prices increased by 15.6% between February 2022 and February 2023. The most affected commodities include eggs (+32%), sheep meat (29.9%), beef (22.9%), poultry (25.3%), and edible oils (24.6%). The price of fresh vegetables increased by 9.8%, and fruits by 14.2% (58). Processed products from large agri-food industry groups also experienced price increases, albeit to a lesser extent (51).

This vulnerability is particularly significant considering that, according to FAO, in 2021, 63.6% of Tunisia's cereal needs were imported, with 46% of imported wheat coming from Ukraine (59). The country's and the Tunisian territory's dependence on imports and fluctuations in international market prices directly impact the food security of Tunisians.

In Tunisia, in 2022, 2.4 million people cannot afford a healthy diet, representing 20% of the population (3). The price criterion becomes the primary factor in food choices, often at the expense of diversity. Consumers tend to opt for calorie-rich but nutrient-poor products (white bread, processed foods, etc.), leading to an increase in the prevalence of deficiencies and non-communicable diseases (51).

In recent years, several initiatives have emerged to facilitate households' access to sufficient, diversified, and healthy food. The Tunisian government subsidizes bread production or cereal imports and the sale of flour to bakers, offering it at low and affordable prices to all Tunisians, who consume between 55 and 70 kg per person per year. However, many doctors and nutritionists have identified excessive salt levels in subsidized bread, affecting consumers' health (42). Furthermore, it seems necessary to revise the subsidization mechanism to include a diverse range of food products that are beneficial to health (51).

The association "Banque Alimentaire durable de Tunisie" (Tunisian Sustainable Food Bank), created during the health crisis, periodically redistributes food to vulnerable populations free of charge. However, it appears to have become inactive since 2022. The association "Un repas pour chaque Tunisien" (A Meal for Every Tunisian), established in 2015, also organizes food distributions, especially during festive periods such as Ramadan. Nevertheless, there is no regulation encouraging food donation or a structured and state-supported food assistance program that could address the food emergency of certain families on a regular and stable basis (54) (23). Various projects carried out by the Municipality, international organizations, and civil society aim to promote individual vegetable production to ensure year-round access to fresh fruits and vegetables for everyone. Small permaculture farms are emerging and some are thriving. Neighborhood gardens managed by local syndicates are sporadically present, and several households practice individual composting according to the assessment of citizen consultations conducted by the Municipality of Tunis in 2021 (40).



RAOUDHA
KHALDI

"The major problem in Tunisia remains access to food, which is getting worse every year. Prices have increased a lot since 2022. It is becoming increasingly difficult for vulnerable populations, and even the middle classes, to buy at least fruit and vegetables. The situation is also likely to worsen in terms of availability, due to droughts and restrictions on the use of water in agriculture for water-hungry crops, and we will be even more dependent on imports, especially of cereals. The absence of a real food security policy with a clear, forward-looking vision, and the pursuit of sectoral strategies that are neither coherent nor inclusive (on a regional and local scale), can only hamper the situation."

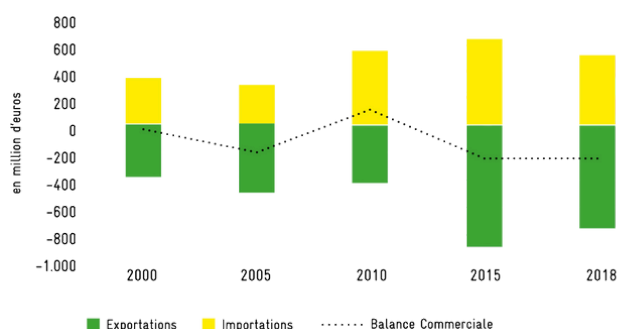
Raoudha Khaldi, independent consultant and former research director and Professor at the National Institute of Agricultural Research in Tunisia

An increased dependence on imports exacerbated by climate change

For the past 5 years, Tunisia has been affected by consecutive droughts, posing a threat to agricultural production that is increasingly reliant on irrigation. In March 2023, in response to an unprecedented winter drought, the Ministry of Agriculture banned the use of drinking water for agricultural irrigation and green spaces until September 2023. The Tunisian Union of Agriculture and Fisheries projects cereal production to be around 2 million quintals, which is less than one-third of the previous year's production (60). Moreover, due to the lack of precipitation and the alarming levels of groundwater and reservoirs, certain governorates have restricted the production of certain water-intensive crops (such as fruits and vegetables). For example, the Zagora Governorate limited watermelon production to 1 hectare per farm in 2022. Climate change leads to reduced yields and increases dependence on imports, thereby exposing Tunisia to price fluctuations associated with imports (61).

Agricultural exchanges between Tunisia and the European Union

Source: GIZ based on Eurostat



An occidentalization of dietary habits, especially among young people

The traditional Tunisian diet is Mediterranean in nature. It is characterized by abundant consumption of cereal products (pasta, bread), fruits and vegetables (tomatoes, zucchini, eggplants, peppers), and daily consumption of legumes, nuts, and seeds. The consumption of animal proteins is traditionally limited (6). However, in recent years, there has been a disruption in this dietary pattern, with an increase in the consumption of animal products (meat, fish) and processed sugary foods, mainly influenced by Western marketing and changing lifestyles (7). In Tunis, young people in particular have a calorie-rich diet, largely due to the omnipresence of fast food and a growing disinterest in cooking (49). This calorie intake contributes to the rise of obesity and overweight issues in Tunisia.

A dense but insufficiently diversified food supply

The residents of Tunis benefit from a dense and reasonably well-distributed food supply throughout the territory. There are different types of distribution channels:

- **Municipal markets:** Tunis has 4 major municipal markets and 22 retail markets (smaller municipal markets focused mainly on the sale of food products) spread across 14 districts (2).
- **Neighborhood grocery stores:** Tunisia has nearly 250,000 neighborhood grocery stores. These are the preferred shopping places for Tunisians, with 81% of Tunisians stating that they frequent these points of sale (39) (43).
- **Large and medium-scale retail** (convenience stores and supermarkets): In 2020, the turnover of the retail food sales sector in the large-scale distribution reached approximately USD 2 billion. The large-scale distribution represents one-fifth of total retail sales (43). These modern distribution channels have rapidly developed over the past decade, notably through joint ventures with foreign investors (mainly French). The number of supermarkets has increased from 200 in 2010 to 655 in 2020 in Tunisia (43). They are regularly frequented by 51% of Tunisians (39).

However, in some neighborhoods, there is an overabundance of fast food establishments at the expense of fresh grocery stores (51).

II. Economic sustainability

- In Tunisia, the agricultural sector contributes 10.4% to the national GDP and accounts for 15% of employment (2018)
- The Tunis Governorate has 8,000 hectares of agricultural land (2018)
- In Tunisia, it is estimated that 80% of farmers own less than 10 hectares of land (2019)
- The port of Radès centralizes 23.5% of the trade in goods entering and leaving Tunisia



RAOUDHA
KHALDI

"Tunisia's small-scale farmers will not be able to sustain themselves economically in the face of rising production costs (energy, seeds, processing products, livestock feed, etc.), a large proportion of which is imported. The changes in farming practices observed among this category of farmers, in order to reduce costs, only serve to reduce their productivity and hence their income, while profits and margins are created at the level of other components of the value chain, for example the step of distribution. Especially while the informal sector is getting more and more important on the market."

Raoudha Khaldi, independent consultant and former research director and Professor at the National Institute of Agricultural Research in Tunisia.

A majority of small producers receive little support in the face of climate change and rising input prices

In Tunisia, in 2018, the agricultural sector accounted for 10.4% of the national GDP and provided 15% of employment. The country's main agricultural productions include cereals (wheat and barley), olives, dates, and citrus fruits for plant-based productions, and sheep for animal-based productions. The olive and date sectors are largely focused on export (44).

Agriculture in the Tunis Governorate covers 8,000 hectares of land. Through its various activities (crop farming, animal husbandry, fishing) and its rich forests and nature reserves, peri-urban agriculture in the Tunis Governorate serves economic, environmental, and social functions, representing a green belt for the city. Like at the national level, it is predominantly composed of small subsistence farms that primarily produce for their own consumption and sell the surplus through predominantly informal channels. As an indicative figure, it is estimated that 80% of farmers in Tunisia own less than 10 hectares of land, and 80% of them have less than 5 hectares (39).

Today, the maintenance of agriculture in the Tunis Governorate faces numerous challenges:

- Difficult access to credit: The difficulty in accessing credit is linked to the complexity of the agricultural financing system, involving multiple actors, as well as the material and real guarantee and profitability requirements demanded by banks. These farmers do not meet the eligibility criteria and are therefore excluded from bank financing. Moreover, the proposed interest rates are relatively high (around 12% in 2020). As a result, only large producers with significant capital have access to bank loans to develop their activities (45).
- Lack of government support: Government support for agriculture in Tunisia has significantly decreased in recent years. Total transfers related to agricultural policies represented 38.8% of agricultural GDP in 2015, compared to 53% in 2010. Furthermore, most of the support is provided in the form of financial assistance to reach market prices. There is no targeted support specifically for low-income producers or young farmers.
- Land pressure due to urbanization: Proximity to the capital city leads to a decrease in available agricultural land and an increase in prices, making it difficult for new installations. As an indicative figure, in 2008 (no recent data found), in the outskirts of Tunis, agricultural land prices ranged between 40,000 and 100,000 Tunisian Dinars per hectare, while it did not exceed 10,000 Tunisian Dinars far from the city for the best agricultural lands (62).
- Lack of interest among the youth: The profession of the farmer is becoming less attractive. The Tunis Governorate is experiencing a significant rural exodus and a decrease in the number of farmers (49).
- Increase in the cost of inputs, particularly energy: Like many countries worldwide, especially in the Mediterranean region, Tunisia has been facing an increase in energy costs since 2022 due to the conflict in Ukraine. This increase directly impacts producers, who see their production costs rise (49).
- Limited cooperative grouping: There are very few agricultural cooperatives in Tunisia. The late 1960s were marked by a radical political change, with a strongly dirigiste state that forced farmers into forced collectivization. Since then, a negative perception has been built around cooperation, and farmers are still reluctant to engage in mutual agricultural service societies or cooperatives, even though it constitutes a relevant solution to limit production costs and facilitate market access (39).
- Climate change: Small producers in the Tunis Governorate, as well as across the country, also face the consequences of climate change (reduced rainfall, water scarcity, etc.), which negatively impact their agricultural yields (49).



**GHAZI
BOULILA**

"The middleman buys from the farmer, sells, and sets the margin they want. The farmer is paid a price determined by the middleman. They have very little negotiating power against these actors who benefit from a certain monopoly. Moreover, the producer is often isolated and unaware of market prices, making it easy for them to be taken advantage of.."

Ghazi Boulila, Economist,
Professor at the Higher School
of Tunis



**JALILA
ELATI**

"Today, certain sectors resemble smuggling. There is a 'mafia' in the retail industry that decides prices among themselves and imposes them on the rest of the chain. As a result, the informal sector is starting to prevail over the formal sector."

Jalila Elati, Head of the
"Studies and Planning"
Department, National Institute
of Nutrition and Food
Technology

All these factors lead to the abandonment of agricultural activity on the outskirts of Tunis and throughout the country. Producers migrate to Tunis to find employment. The succession within the agricultural sector is very weak or even non-existent. As a result, there is a decrease in the number of farms and an aging agricultural population (49).

Agri-food transformation represented by the industry in Greater Tunis

As the capital of the country, Tunis is home to 15 of the largest agri-food industries in Tunisia. These companies produce vegetable oils (especially olive oil), cereal-based products (biscuits, snacks, etc.), and packaged dates, for example. "La Rose de sable" is an agri-food company with the highest revenues located in Tunis (approximately 54.2 million USD), and it is a leader in the cultivation, packaging, and export of dates (32). In the Governorate of Tunis, there are very few artisanal processing units that could allow producers to add value to their raw products (49).

Tunis, gateway to the Mediterranean for exports

The city of Tunis plays a major role in the export of agricultural products from the country. It centralizes food resources and redistributes them throughout the country and internationally (36). This function is facilitated by the port of Radès, which centralizes 23.5% of the goods entering and leaving Tunisia. Tunis also hosts the headquarters of major import-export companies in the country, such as SODEX, STD, and the International Company of Tunisia. Its role is particularly important as over 90% of Tunisia's foreign trade is conducted by sea (63).

Difficult market access for small local producers, forcing them to resort to the informal circuit

Small producers face difficulties in accessing markets to sell their products at prices that allow them to make a living. The following factors contribute to this situation:

- The significance of intermediaries between the producer and the consumer: In the Tunisian food distribution system, value is unevenly distributed along the food chain. There are often numerous intermediaries who set prices and make significant margins. Individual producers have limited bargaining power compared to wholesalers and intermediaries. Additionally, they lack sufficient information about the prevailing prices (23).
- The requirement to go through the wholesale market to sell products in the public space: To market their products, producers must go through wholesale markets (64). The produce is then sold to wholesalers and retailers who also gain a significant margin, which affects the cost price for the producer and the price at which the consumer purchases the product.
- Small production volumes and the absence of aggregation: Small producers do not generate sufficient volumes to supply large and medium-scale retailers, which can directly source from producers through their purchasing departments (65). Moreover, without aggregation or cooperatives, individual producers lack the necessary infrastructure for storage, logistics, and sales to market their products through short and local supply chains.

There are very few marketing channels that benefit small producers. As a result, many farmers turn to informal sales of their products in hopes of obtaining a reasonable price (roadside sales, direct farm sales, word-of-mouth, etc.) (51).

III. Environmental sustainability

- *The agricultural sector in Tunisia is responsible for 60% of terrestrial biodiversity loss and 33% of soil degradation*
- *The agricultural sector in Tunisia contributes 25% to the total greenhouse gas emissions*
- *The area dedicated to organic agriculture has increased by +54% in Tunisia between 2015 and 2018*
- *A Tunisian household wastes the equivalent of 17 Tunisian Dinars per month, which accounts for 5% of the household's food expenses*

Agricultural production systems impacting natural resources

In the Governorate of Tunis, agriculture is one of the main contributors to, but also one of the primary victims of, water pollution. Pollution from agricultural drainage and municipal effluents threatens the coastal and marine ecosystems of the country. As a result, the Gulf of Tunis has been identified as the "largest pollution hotspot" in the country (46). The cause of this issue is an outdated sewerage system and treatment infrastructure that can no longer handle the volume of wastewater. Even when treated, the wastewater remains polluted due to the deteriorated infrastructure, making it difficult to be used for agriculture. Supported by the World Bank and co-financed by the Global Environment Facility (GEF), a sanitation project in Tunis-Nord, concluded in 2021, involved the construction of underground pipelines, an outlet, and a wastewater retention basin (46).

Currently, the agricultural sector in Tunisia is responsible for 60% of terrestrial biodiversity loss and 33% of soil degradation, according to UNEP (16). In 2017, nearly half of the agricultural production in Tunisia took place on infertile and erosion-prone land. Studies in 2011 revealed that the dominant conventional agriculture was causing an average annual loss of 2% in soil fertility (66).

In 2012, the Tunisian agricultural sector was a significant emitter of greenhouse gases (GHGs), accounting for over 11 million tons of CO₂ equivalent in gross emissions. It contributes to one-quarter of the country's gross national GHG emissions, ranking second behind the energy sector (67).

This can be attributed to intensive agricultural practices (overgrazing in arid or semi-arid areas, monocultures of olive trees using "dry farming" methods, intensive tillage, lack of vegetation cover, etc.), sometimes an inappropriate choice of varieties (productive but water-demanding olive varieties), and significant and increasing use of chemical inputs (pesticides and fertilizers) (39). According to the Tunisian Permaculture Association, these practices are found among large-scale agricultural producers as well as small subsistence farmers. It is often due to a lack of knowledge and skills regarding water-efficient and soil- and biodiversity-friendly production systems. There are also few financial incentives for low-impact environmental production, as these products are often sold alongside products from intensive agriculture that rely on chemical inputs (39).

The rise of organic agriculture... for export

Tunisia is the only African country with recognized equivalence in organic labeling with the European Union and Switzerland. Organic-labeled products from Tunisia can be sold in European markets on par with those produced in Europe. This recognition encourages the country to invest in organic agriculture, particularly in the production of olive oil, dates, vegetables, aromatic and medicinal plants, and vineyards. In 2018, Tunisia had 335,000 hectares of organically farmed land, with 118 hectares in the Governorate of Tunis (representing only 0.03% of the country's organic farmland). The area dedicated to organic agriculture increased by +54% in Tunisia between 2015 and 2018. However, the majority of its production is dedicated to exports (80%). In 2018, organic products accounted for 14% of the total value of agri-food products exported by Tunisia (compared to 4% in 2010). This does not benefit the local population or contribute to the country's food independence. Tunisia has become the second-largest African exporter of organic products (68).

At the municipal level, efforts are being made to promote the transition to sustainable agricultural practices. In 2021, all green space maintenance staff were trained in permaculture by the Tunisian Permaculture Association (50).

ADEL BETTAIEB

"Despite our limited knowledge of agriculture, at the Municipality of Tunis, we try to contribute to sustainable agriculture development at our level. We have trained all our park and green space maintenance staff in permaculture. We also aim to establish a municipal vegetable nursery to distribute seeds and seedlings to residents. We could combine this activity with workshops to raise awareness about permaculture methods."

Adel Bettaieb, Director of Roads, Parks, and Green Spaces, Municipality of Tunis



CHAIMA
KTAYFI

"Household food waste exists for cultural reasons. In the past, the scarcity of food gave it significant value, and it was not easily wasted. But today, with all this abundance, Tunisians have lost that connection to their food and easily waste it. There is a particular problem with bread, which is wasted without limits because it is sold at a very low price. Since 2022, the increase in food prices has encouraged households to reduce this waste, primarily for economic reasons."

Chaima Ktaifi, in charge of the anti-food waste program, Zero Waste Tunisia



RAOUDHA
KHALDI

"If food waste is increasing, it's mainly due to low levels of consumer awareness and good practices sharing. The absence of appropriate, operational mechanisms for recovering food waste is also a major limit, despite the efforts of a few associations. The Tunisian food bank, set up in 2011 as part of the regional network of food banks, has not been able to operate as effectively as Egypt's, which is well ahead of its time. This is due to a lack of resources, corporate support to ensure a continuous supply and, above all, a clear and appropriate legislative framework enabling products to be recovered and distributed."

Raoudha Khaldi, independent consultant and former research director and Professor at the National Institute of Agricultural Research in Tunisia.

Significant food waste throughout the value chain

Food waste is considerable in Tunisia, estimated at 200 kg per person per year. For comparison, the global average is 121 kg per person per year (18). This waste is partly explained by a lack of awareness among citizens who are insufficiently educated on the subject, resulting in poor food management within households, especially during the Ramadan period (69). Moreover, bread, a staple food for Tunisians and heavily subsidized by the government, is the most wasted product by households. It does not preserve well for several reasons, including poor flour quality, lack of technical skills among bakers, and poorly controlled production processes. The poor quality and low prices of bread partly explain the significant food waste. In 2016, the National Consumer Institute estimated that Tunisians discarded about 900,000 loaves of bread per day out of 7 million produced (approximately 13%) (42). In 2016, the National Consumer Institute (INC) highlighted that a Tunisian household wasted the equivalent of 17 Tunisian Dinars per month, representing 5% of the household's food expenses. In the context of rising food prices, it becomes urgent to reduce household food waste. To address this issue, in 2020, the Municipality of Tunis commissioned the FAO and the INC to develop a strategy to combat food waste by 2025 (70).

Actors downstream also contribute significantly to this waste. The large and medium-scale distribution, in the absence of regulations that penalize waste or encourage food donation, still prefers to discard rather than implement waste avoidance and redistribution strategies. The outdated infrastructure and lack of value chain structuring also result in losses during the transportation, storage, and processing stages (53).

Waste management is a major issue in Tunisia. Only 40% of solid waste is treated because it is not sorted: industrial, medical, organic waste, and municipal waste are mixed together. On a national scale, most waste is disposed of in landfills, which cause numerous nuisances: odors, noise, dust, biogas emissions, and leachate (the product of organic matter dissolution, a source of soil and surface or groundwater pollution) (39). There is no separate sorting and collection solution for organic waste in Tunis. Some composting initiatives are informally implemented among neighbors and in a few schools, but these initiatives remain very rare (50).

A population still lacking awareness of organic product consumption

In Tunis, a market for Tunisian organic products has been established in the Soukra neighborhood. However, these products are reserved for a well-informed segment of the population with sufficient income to access them. Communication around the concept of organic products is still confusing and primarily occurs through social media. Consumers are not sufficiently informed about the different characteristics of a certified organic product and a product labeled as "natural" (39). Moreover, Tunisians today tend to lose interest in sustainability-related topics and instead focus on their purchasing power in the face of inflation (51).

In Tunis, there are, however, a few initiatives seeking to raise awareness and encourage consumers to turn to organically produced products sold through short supply chains. The Tunisian Permaculture Association aims to inform the population through workshops and training on sustainable farming methods. The Tunisie Coop association also seeks to raise awareness among Tunisians by promoting short supply chains and products from sustainable agriculture.

Meat consumption still limited but increasing

Tunisians' meat consumption is increasing but remains low compared to Western countries (32.5 kg/year in Tunisia compared to 90 kg/year in Europe (37)). This increase is partly due to the gradual abandonment of traditional dietary habits, particularly among young urban residents of Tunis, and the consumption of meat-rich fast food (51). The rise in meat consumption can have a negative impact on the carbon footprint of Tunisians' diet: globally, livestock is responsible for 18% of greenhouse gas emissions (71).

IV. Food governance

STAKEHOLDERS MAPPING AND ANALYSIS

This stakeholder mapping was carried out with the experts interviewed in Tunisia. It aims to position the main categories of actors in the food system according to their degree of commitment and their capacity to impact the sustainability of the food system.



COMPETENCIES OF THE MUNICIPALITY OF TUNIS REGARDING FOOD SYSTEMS

- **Environment:** cleanliness of the city, maintenance of green spaces.
- **Hygiene:** sanitary inspection of food sales venues.
- **Urban planning:** development plan, urban renewal.
- **Transportation:** traffic, parking and parking lots, public transportation.
- **Economy and employment:** commercial spaces.
- **Culture and leisure:** historical sites and monuments, cultural centers, theaters.
- **Tourism and crafts:** handicrafts, tourist circuits, hotels, restaurants.
- **Youth and sports:** children's clubs, assistance to youth (47).



**RAOUDHA
KHALDI**

"Although decentralization is progressing politically (municipal councils have been elected and democracy is taking root at local level), the food system is still governed centrally from the top down. Municipalities, local authorities and civil society are not partners in decision-making, and have no mechanism for planning, monitoring and evaluating food security, or even anticipating shocks. They have no local food strategies and little, if any, visibility over the actors in their food system."

Raoudha Khaldi, independent consultant and former research director and Professor at the National Institute of Agricultural Research in Tunisia.



**JALILA
ELATI**

"The socio-economic and political instability of the country puts our country at risk. There is no food governance; everything is currently blocked due to the growing debt and the political situation that does not allow any planning. In addition to that, the lack of visibility for the future kills all hope and undermines the motivation of promising initiatives."

Jalila Elati, Head of the "Studies and Planning" Department, National Institute of Nutrition and Food Technology

Decentralization of powers is still recent, limiting the Municipality's capacity to act

Tunisia is a highly centralized state, and the role of municipalities is still limited, with a low budget: only 3.6% of the overall state budget is allocated to local authorities, compared to 10% in Morocco and nearly 35% in Western Europe (38). Despite a decentralization initiative started in 2014, Tunisia's territorial organization still demonstrates the predominance of centralized institutions. The distinction between administrative deconcentration (24 governorates subdivided into 264 delegations and 2073 sectors) and political decentralization (24 regional councils, 350 municipalities) is still unclear. Agricultural policy in Tunisia is mainly managed at the central level by the Ministry of Agriculture, Hydraulic Resources, and Maritime Fishing. Local authorities have little influence over agricultural and food-related issues (39).

In Tunisia, the new code of local authorities grants certain key competencies to governorates and municipalities, enabling the initiation of this food and agricultural transition (see previous page) (39).

The political and economic instability limits the possibilities of building a sustainable and resilient food system

Since 2011, Tunisia has experienced a period of political and economic transition marked by major challenges. Following the Jasmine Revolution, the country succeeded in establishing a democratic regime with the adoption of a new constitution in 2014. However, political stability has often been fragile, hindering the implementation of ambitious structured agricultural and food policies. Recent political upheavals under President Kaïs Saïed's tenure (dismantling of the parliamentary system, hyper-presidentialism, dissolution of municipal councils) threaten Tunisian democracy and do not align with the intention to strengthen the power of local governments or build a sustainable food system (72).

From an economic perspective, Tunisia has faced persistent difficulties. Economic growth has been slow, with an average GDP growth rate of around 1.8% between 2011 and 2020. Moreover, the security situation has also had a significant impact on the Tunisian economy. The terrorist attacks in 2015 and subsequent social unrest affected the tourism sector, which was once a key driver of the economy. Tourist revenues decreased significantly, from \$3.5 billion in 2010 to approximately \$1 billion in 2020. Currently, the country's debt is estimated at 80% of its GDP, making it difficult, if not impossible, to pass any new structural policies, including those related to food (73).

Towards the end of subsidizing basic food products

Tunisia's food policy is characterized by its program of support for basic food products such as wheat or barley (for bread, semolina) or milk. While this policy aims to facilitate access to these products for consumers, it poses various problems:

- It is large-scale farms that benefit from this policy and capture the majority of the subsidies, which are distributed based on the size of the farm. As a result, small-scale producers do not benefit from it.
- The cost of this policy is significant for the Tunisian state; in 2022, it represented 3.5% of its GDP, which is approximately 1.3 billion euros. This cost has been increasing since 2022, mainly due to inflation and the Ukrainian crisis.
- The increase in cereal production is incompatible with climate change and the degradation of Tunisian soils, which are more suitable for Mediterranean crops (fruits, legumes, olive oil, etc.) (23).

Given the severe economic crisis facing the country, civil society, international organizations, and notably the International Monetary Fund (IMF) recommend Tunisia reduce the level of subsidies granted or even eliminate the subsidization policy for certain basic commodities and direct subsidies to those most in need in the form of cash transfers. In early 2023, this was a condition set by the IMF for granting a new loan of 2 billion euros to the Tunisian state (73).

ADEL
BETTAIEB

"Thanks to the FAO and the determination of our Mayor, today we have initiated many avenues to successfully carry out actions in favor of a sustainable food system. We have conducted studies to better understand the situation. Now, we need to take concrete action, but for that, we require a dedicated governance body within the Municipality of Tunis to clarify the roles of each stakeholder in implementing these concrete actions."

Adel Bettaieb, Director of Roads, Parks, and Green Spaces, Municipality of Tunis

A strong political will of the Municipality of Tunis in favor of sustainable food

Due to the strong commitment of Mayor Souad Abderrahim since 2018 and close collaboration with FAO Tunisia, the Municipality of Tunis is engaged in various programs and studies to contribute to the development of a sustainable food system for the territory:

- Awareness workshops on healthy eating and food waste in the 13 kindergartens of Tunis, managed by the Municipality (in partnership with the National Institute of Nutrition).
- Training of Municipality of Tunis agents in composting by the National Waste Management Agency.
- Training of Municipality agents in permaculture by the Tunisian Permaculture Association.
- Conducting a study on healthy and sustainable food supply and access to green spaces in the El Mourouj2 neighborhood, in partnership with the National Institute of Consumption and the Permaculture Association. This study aimed to identify solutions to increase the availability of fresh products in the neighborhood.
- Developing a strategy to combat food waste in the Municipality of Tunis between 2020 and 2025, in partnership with the National Institute of Consumption.
- Building an internal food governance strategy: the cross-cutting nature of food-related issues makes their integration difficult in the local political agenda, in the absence of a dedicated competent service. To address this challenge, the Municipality of Tunis and FAO have commissioned 2 consultants to conduct a study and develop a proposal for an internal governance body for food-related issues. Due to the current absence of a Municipal Council, the strategy has not yet been validated and voted upon.
- Integration of food-related issues within the framework of the Municipality's territorial development strategy, in collaboration with MedCities.
- Implementation of an urban agriculture pilot project in collaboration with UN-Habitat: maintenance of 2 vegetable gardens in Tunis ("Jardin des Plantes") and La Marcha.
- Participation in cooperation projects: to promote the exchange of good practices, Tunis participates in various networks and international cooperation projects. The City is a signatory of the Milan Urban Food Policy Pact since 2019 and also belongs to the ICLEI network. Since 2023, it has been involved in the AfriFoodLinks project led by Hivos and ICLEI.

The "Roads, Green Spaces, and Parks" Department is responsible for implementing actions in favor of sustainable agriculture and food in Tunis. However, despite strong political will, the effective implementation of the projects has been slowed down by the health crisis and more recently by the current political context, particularly the dissolution of the Municipal Council in March 2023.

A willingness to consult actors in the food system and civil society

In 2021, as part of the World Food Systems Summit 2021, the Municipality of Tunis organized an independent consultation to gather input from institutions, actors in the food system, and civil society on actions to be taken to build a sustainable local food system. 82 people exchanged views on 5 working axes:

- Food, nutrition, and health nexus for the citizens of the city of Tunis.
- Role and promotion of urban agriculture (UA) and peri-urban agriculture (PUA).
- Distribution channels and the role of e-commerce and platforms.
- The role of the social and solidarity economy in transforming urban food systems.
- Food waste, food waste management, and circular economy (50) (40).

Furthermore, the food governance strategy developed in 2022 also incorporates different modalities for engaging civil society and actors in the food system in political decision-making. While multi-stakeholder consultation is still in its early stages, various frameworks have been established to facilitate the participation of all in decision-making and the creation of synergies (50).

However, there are still very few associations dedicated to the issues of agriculture and sustainable food in Tunisia. The main reasons for this are the glaring lack of financing for civil society and limited awareness on these subjects (49).

A FEW INITIATIVES FOR SUSTAINABLE URBAN FOOD SYSTEMS

TUNISIA COOP - CONSUMER COOPERATIVE

- Develops short supply chains for agricultural products.
- Raises awareness about the importance of direct sourcing from Tunisian producers.

MORNAG ECO FARM - PEDAGOGICAL AGROECOLOGICAL FARM

- Located in Mornag, in the southern suburbs of Tunis.
- Offers bed and breakfast accommodation and organizes thematic awareness workshops.

FOODEALZ - FIGHT AGAINST FOOD WASTE

- Mobile application aimed at combating food waste.
- Based on the "Too Good to Go" model: selling near-expiry products at discounted prices.

GDA SIDI AMOR - SUSTAINABLE DEVELOPMENT DEMONSTRATION SITE

- Located in the Ariana Governorate.
- Focuses on eco-construction, gardening and hydroponics, water sanitation, rose cultivation and rose water distillation, etc.
- Emphasizes open governance.

BANQUE ALIMENTAIRE DURABLE DE TUNISIE

- Established in 2020 during the health crisis.
- Collects and distributes food to people in need.
- Supports beneficiaries with access to microcredit, gardening initiatives, etc.

INC, FAO, MUNICIPALITY OF TUNIS - MOBILE APPLICATION FOR FOOD PRICES

- Creation of a mobile platform to enhance transparency in food prices.
- Targeted at consumers, producers, and sellers.

ASSOCIATION "UN REPAS POUR CHAQUE TUNISIEN"

- Established in 2015.
- Distributes meals to people in precarious situations, especially during festive periods like Ramadan.

URBAN GREEN - URBAN AGRICULTURE AND GREENING

- Company.
- Planting trees, vegetable gardens, and organizing workshops for children on biodiversity and agriculture.

ASSOCIATIONS DES AMIS DU BELVÉDÈRE

- Environmental Association located in Belvédère Park in Tunis.
- Environmental awareness activities, cultural and sports events.
- Production of honey, olive oil, and compost.

ASSOCIATION EL MOUROUJ2

- Urban Association of El Mourouj2 neighborhood, established in 1989.
- Organization of a solidarity market, urban gardens in schools, local products festival, couscous competition, etc.

TUNISIAN PERMACULTURE ASSOCIATION

- Supporting small Tunisian producers in their transition to permaculture.
- Organization of the harvest festival.
- Training of trainers from the Ministry of Agriculture and agents from the Municipality of Tunis.

MUNICIPALITY OF TUNIS AND UN-HABITAT - VEGETABLE GARDENS IN TUNIS AND LA MARCHA

- Experimental project launched in 2022.
- Vegetable gardens maintained by the Tunis and La Marcha town halls.
- Located in public gardens designed to raise awareness.

ASSESSMENT OF THE URBAN FOOD STRATEGY

MUNICIPALITY OF TUNIS

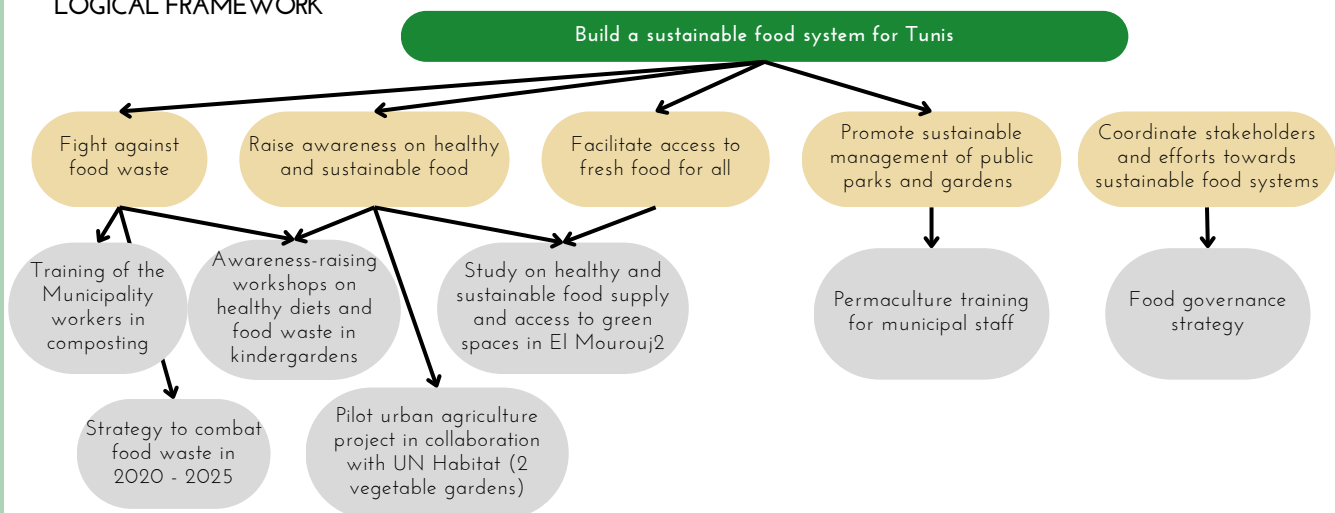
The assessment of the initiatives aims to:

- Assess the impact of the initiative on the priority sustainability issues of the food system;
- Determine the replicability of the initiatives and the conditions for their replicability;
- Identify success factors and areas for improvement.

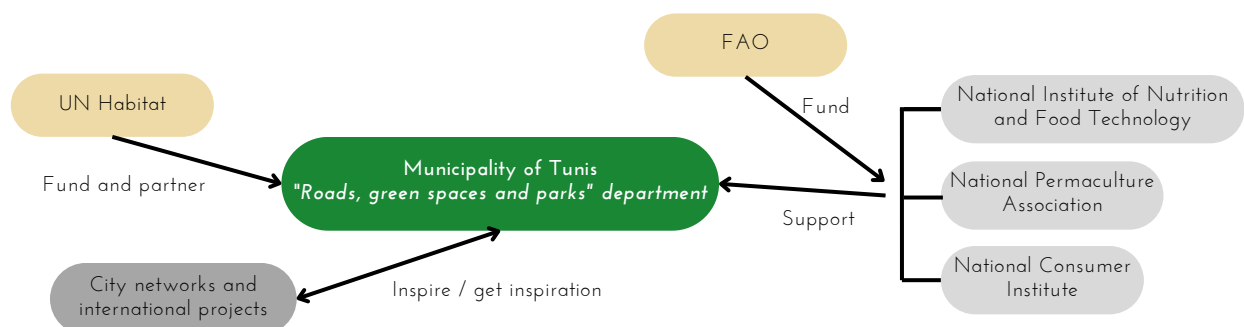
NATURE OF THE PROJECT AND TERRITORIAL SCOPE

- Target of the project: citizens of Tunis, Tunisian smallscale farmers.
- Financial resources mobilised: FAO, UN-Habitat, municipal human resources.
- Scope of action: Municipality of Tunis.
- Expected level of impact: Improve the quality of life and the food habits of the citizens of Tunis, limit the impact of the local food system on natural resources, and provide better income for Tunisian smallscale farmers.
- Stage of the progress of the initiative: Preliminary (assessment and strategies but very few concrete actions).

LOGICAL FRAMEWORK



PARTNERSHIP ENVIRONMENT



MUNICIPALITY OF TUNIS



Crédits: Let's Food

URBAN GARDEN



Crédits: Let's Food

NURSERY



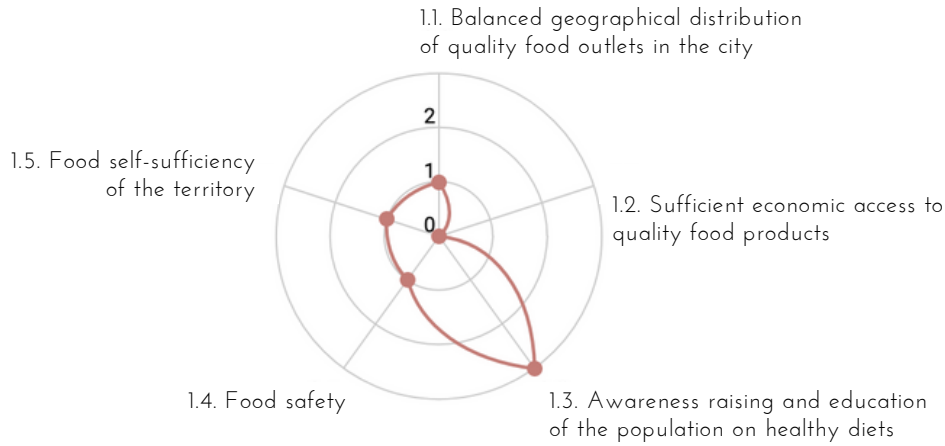
Crédits: Let's Food

CONTRIBUTION TO THE FOOD SYSTEM SUSTAINABILITY

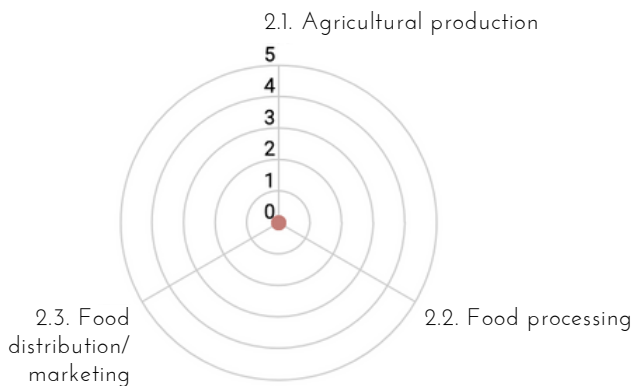
The various illustrations represent the components and sub-components of a sustainable food system as defined in the methodology proposed by Let's Food. This assessment was carried out by Let's Food, based on an interview with Adel Bettaieb, Director of the Department of Roads, Parks and Green Spaces, Municipality of Tunis.

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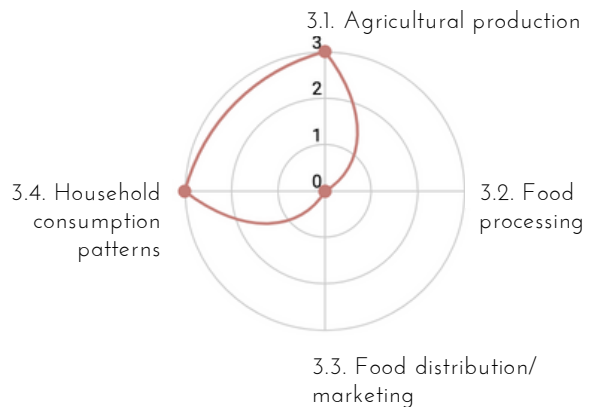
• FOOD SECURITY AND NUTRITION



• ECONOMIC SUSTAINABILITY



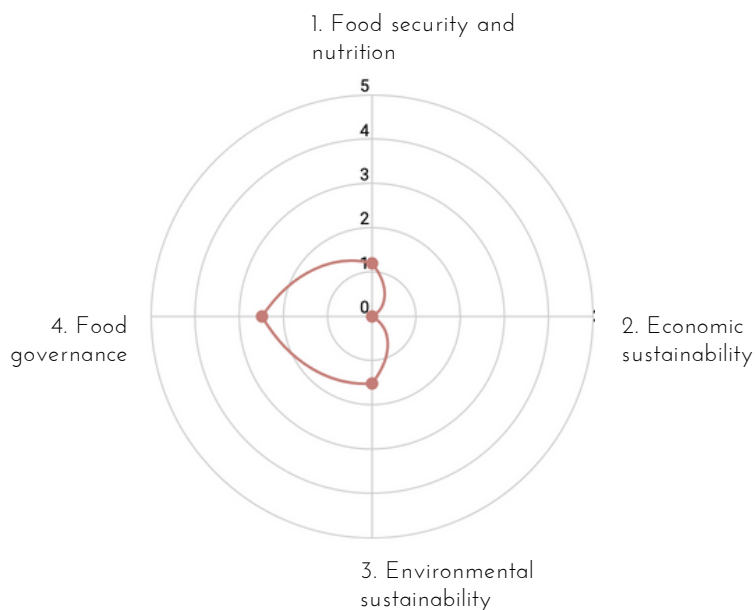
• ENVIRONMENTAL SUSTAINABILITY



• FOOD GOVERNANCE



CONTRIBUTION TO THE FOOD SYSTEM SUSTAINABILITY



The Municipality of Tunis has initiated a variety of actions to promote the sustainability of its food system since 2019. However, most of these actions are still limited to **preliminary studies** aiming at defining more precisely the means of intervention. In particular, the Municipality has carried out a study to define a **governance** model to coordinate local stakeholders engaged towards sustainable food systems. Although this strategy has not yet been approved by the Municipal Council, its implementation is a sign of the Municipality's determination to fulfil its role as territorial coordinator. In addition, municipal staff have been trained in permaculture techniques and food waste management, contributing in reducing the **environmental impact** of the food system. It also organizes awareness-raising workshops on healthy eating in schools, thus contributing to overall **food security and nutrition** in the territory. No action has yet been taken to promote the development of an **inclusive food system that creates quality jobs**.

STRENGTHS, WEAKNESSES, OPPORTUNITIES, THREATS (SWOT) MATRIX FOR THE SUCCESS OF THE INITIATIVE

STRENGTHS

- **Political will**, commitment of the city council.
- Continuous technical and financial support from **FAO**.
- **Strong partners** working towards sustainable food systems (INC, INNNTA, ATML)
- **Good understanding** with partners, willing to cooperate.
- Commitment of the **technical team**.

WEAKNESSES

- Lack of **communication, coordination and cooperation** with other institutions to address transversal food systems issues.
- Lack of **knowledge and skills** on food-related topics (more on agriculture).
- **Centralization of powers** limits the Municipality's ability to intervene.
- Lack of **competent human resources** to implement a proper food strategy.

OPPORTUNITIES

- **New local government code**: providing an extended range of competencies to Municipalities.

THREATS

- Dissolution of the City Council: **regulatory blockage** (food waste and food governance strategies could not be voted).
- **No proper municipal budget** is dedicated to the food strategy: it relies on the financial support of external funders (FAO, UN-Habitat, etc).
- Socio-economic and political **instability** of the country.

ASSESSMENT OF THE INITIATIVE BASED ON INTERVIEWS CONDUCTED WITH

- **Adel Bettaieb**, Director of the Department of Roads, Parks and Green Spaces, Municipality of Tunis.

ASSESSMENT OF THE “SOLIDARITY SOUK”

Association des habitants d'El Mourouj2

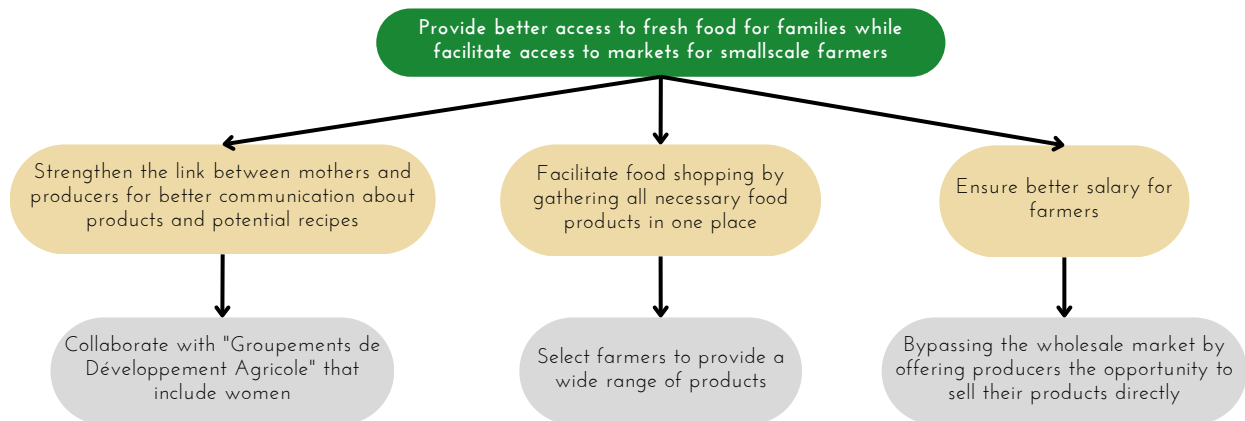
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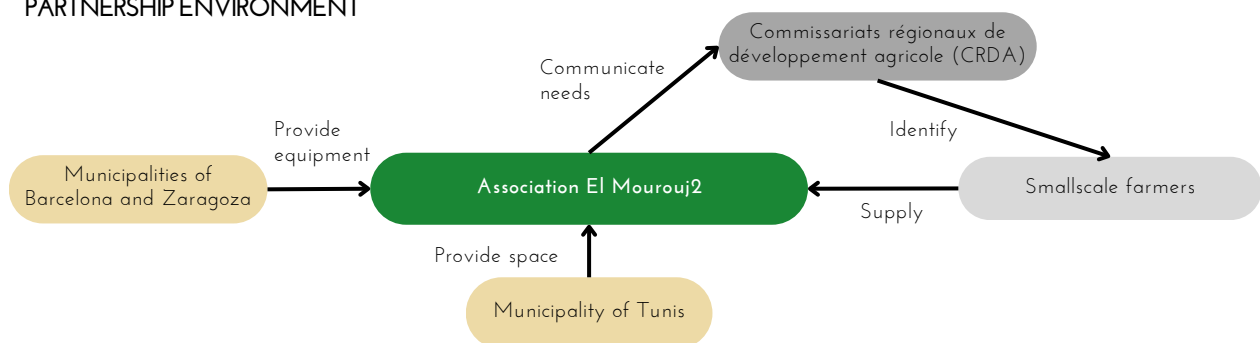
NATURE OF THE PROJECT AND TERRITORIAL SCOPE

- Target of the project: inhabitants of El Mourouj2 neighborhood, smallscale Tunisian farmers.
- Financial resources mobilised: Municipalities of Barcelona and Zaragoza, volunteers.
- Scope of action: El Mourouj2.
- The expected level of impact: Provide better access to fresh food for families, facilitate access to markets for smallscale farmers
- Stage of the progress of the initiative: Ongoing.

LOGICAL FRAMEWORK



PARTNERSHIP ENVIRONMENT





Crédits: Association El Mourouj2



Crédits: Association El Mourouj2



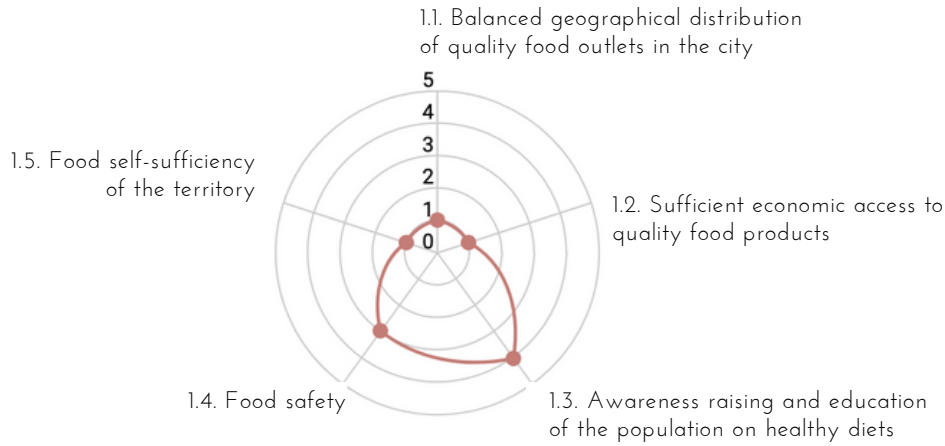
Crédits: Thouraya Hezami Talbi

CONTRIBUTION TO THE FOOD SYSTEM SUSTAINABILITY

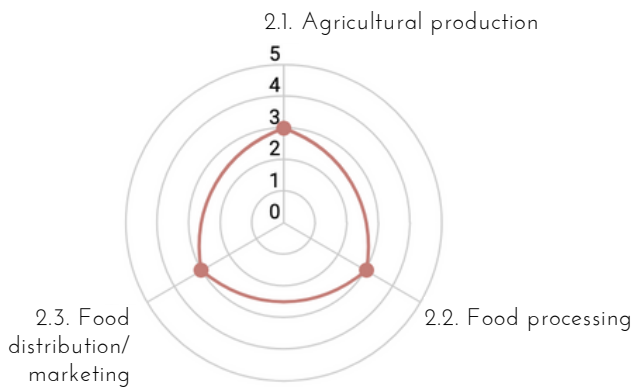
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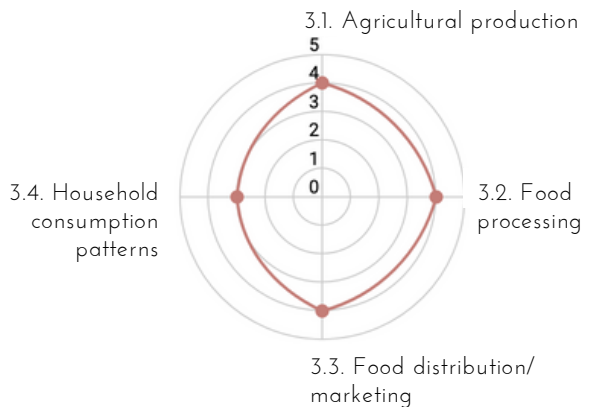
• FOOD SECURITY AND NUTRITION



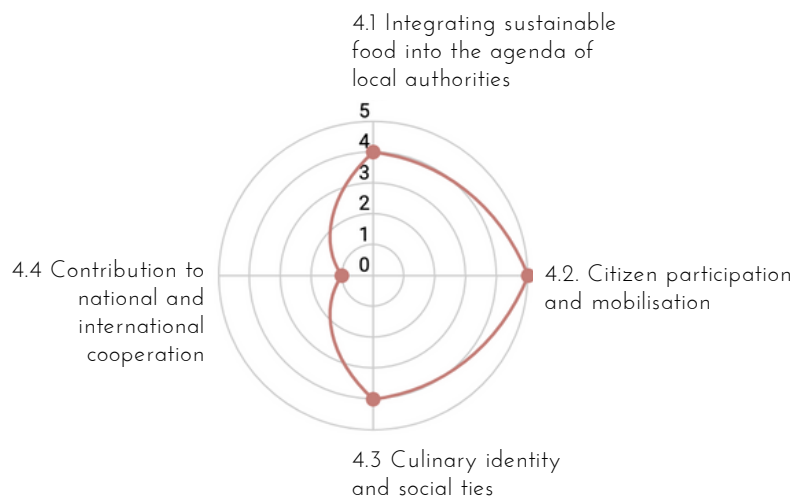
• ECONOMIC SUSTAINABILITY



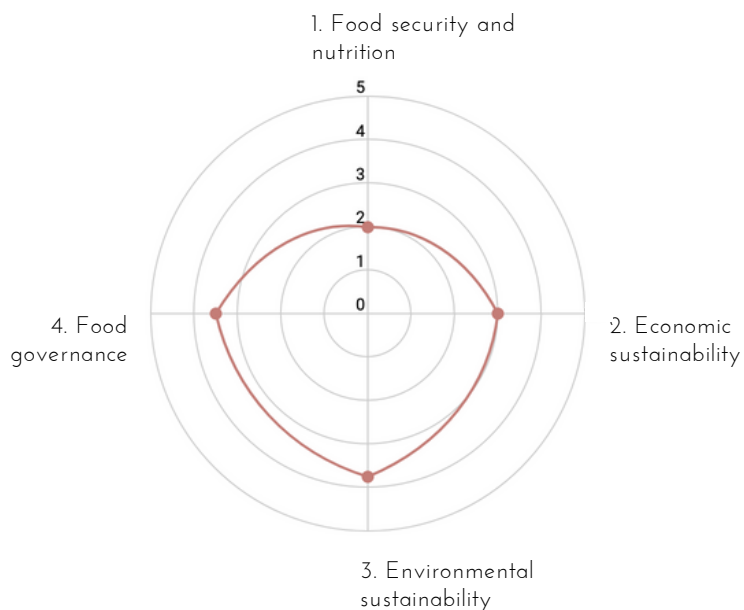
• ENVIRONMENTAL SUSTAINABILITY



• FOOD GOVERNANCE



CONTRIBUTION TO THE FOOD SYSTEM SUSTAINABILITY



The Souk Solidaire contributes to the 4 dimensions of a sustainable food system. The initiative offers small-scale producers a sales outlet by marketing their products directly to consumers. This direct sale enables them to get a better price for their products than through conventional distribution channels. The initiative thus contributes to creating an inclusive and equitable economic environment. The Souk Solidaire also gives consumers in the El Mourouj 2 district easy access to fresh Tunisian produce at affordable prices, thus contributing to local food and nutritional security. In addition, the El Mourouj2 association has set up a charter for selecting producers who practice ecosystem-friendly agriculture. The initiative thus contributes to the environmental transition of the Tunisian food system. Finally, thanks to the association's reputation and its relationship with the Municipality of Tunis, it is in a position to influence public policy, helping to put these issues on the local political agenda. The strong involvement of citizens and producers in the smooth running of the Souk contributes to the development of ambitious and open local food governance.

STRENGTHS, WEAKNESSES, OPPORTUNITIES, THREATS (SWOT) MATRIX FOR THE SUCCESS OF THE INITIATIVE

STRENGTHS

- **Conviction and commitment** of the El Mourouj2 association.
- **Competence** of the association on agricultural and food issues (the President is an agricultural engineer).
- Strong **mobilisation** of the inhabitants.
- **Confidence of the inhabitants** in the association, which has been established in the neighborhood since 1988.
- One **permanent staff** who manages the coordination.

WEAKNESSES

- **Administrative complexities** in accessing funding.
- **Competition and mistrust** between civil society organizations.
- **Logistical difficulties** for some producers to bring their production to market.

OPPORTUNITIES

- The **Municipality's commitment** to sustainable food systems.

THREATS

- **Distrust of public authorities** towards associations.

ASSESSMENT OF THE INITIATIVE BASED ON INTERVIEWS CONDUCTED WITH

- **Adel Azzabi**, président, association El Mourouj2.

ASSESSMENT OF THE “GDA SIDI AMOR”

Groupement de développement agricole (GDA) Sidi Amor

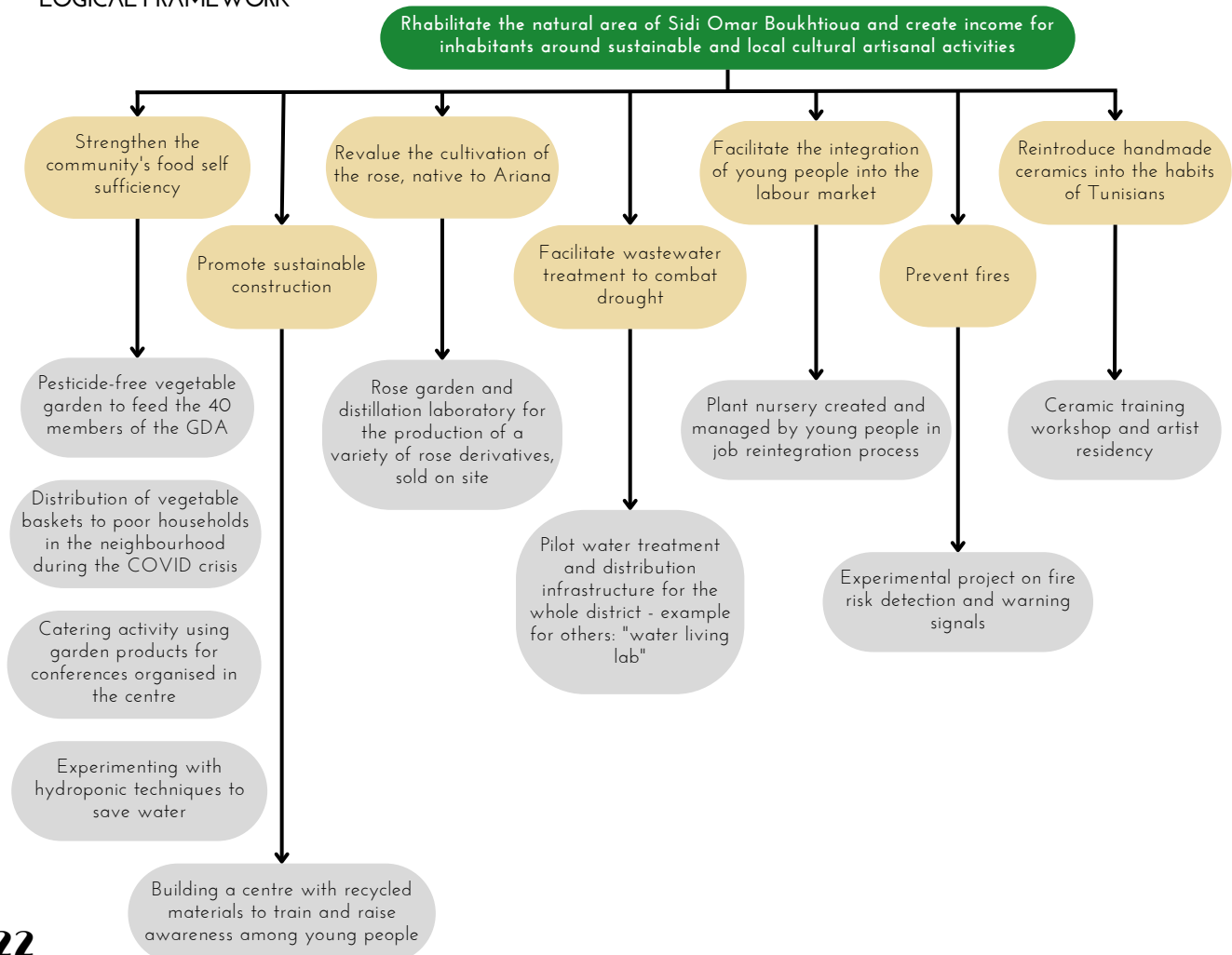
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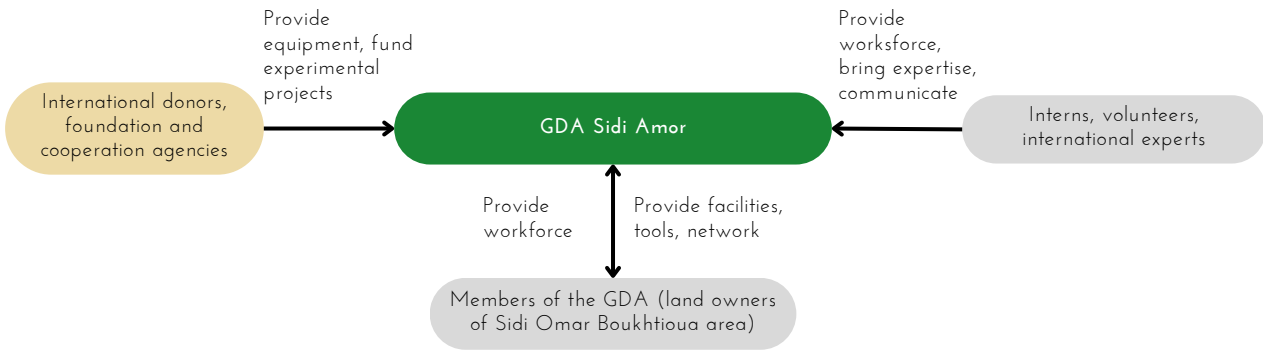
NATURE OF THE PROJECT AND TERRITORIAL SCOPE

- Target of the project: inhabitants of the neighborhood of Sidi Omar Boukhtioua, Ariana Governorate.
- Financial resources mobilised: Own funding (room rental and workshops), international donors.
- Scope of action: Sidi Omar Boukhtioua, Ariana Governorate.
- The expected level of impact: Rehabilitate the natural area of Sidi Omar Boukhtioua and create income for inhabitants around sustainable and local cultural artisanal activities.
- Stage of the progress of the initiative: Ongoing.

LOGICAL FRAMEWORK



PARTNERSHIP ENVIRONMENT



SITE OVERVIEW



VEGETABLES GARDEN



HYDROPONIC SYSTEM

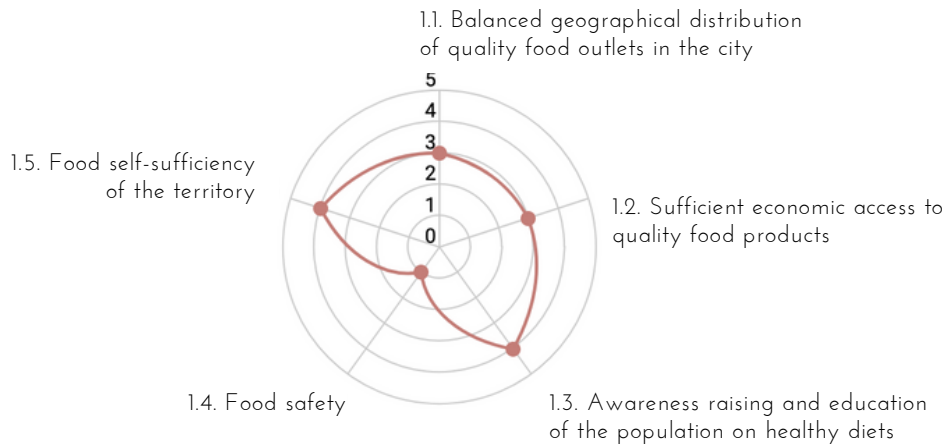


CONTRIBUTION TO THE FOOD SYSTEM SUSTAINABILITY

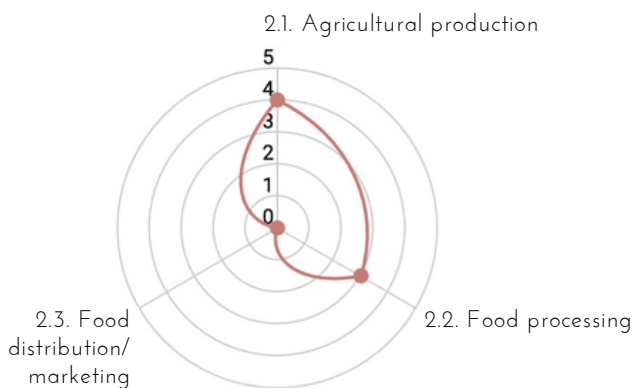
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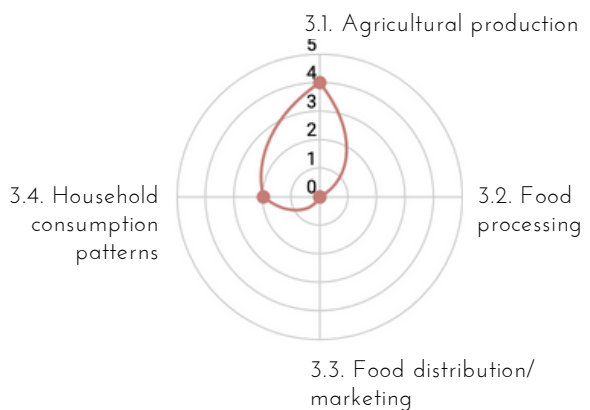
• FOOD SECURITY AND NUTRITION



• ECONOMIC SUSTAINABILITY



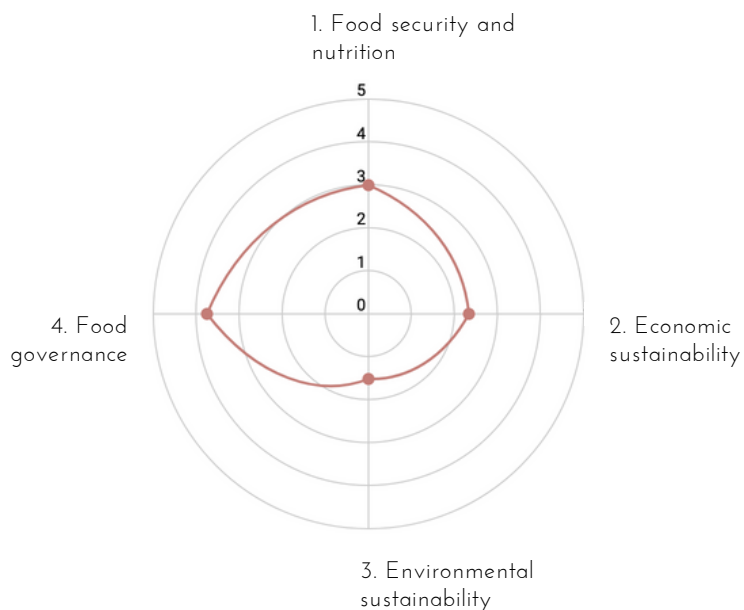
• ENVIRONMENTAL SUSTAINABILITY



• FOOD GOVERNANCE



CONTRIBUTION TO THE FOOD SYSTEM SUSTAINABILITY



The GDA Sidi Amor contributes to the 4 components of a sustainable food system. Maintaining a food garden to feed GDA members and offering healthy, agro-ecological, local meals to people organizing events on the association's premises makes a strong contribution to local food and nutritional security. In addition, the GDA format and the association's various experimental projects (mostly financed by international organizations) enable the creation of permanent jobs in the area (horticultural and vegetable nursery created by young people, distillation by women, etc.). The GDA is part of an approach to preserving ecosystems through actions to recuperate and treat water naturally, fight forest fires, maintain an agro-ecological garden, etc. Last but not least, the open governance provided by the GDA's statutes, its participation in numerous international projects, and the initiative's territorial anchoring, earned it a score of 3.8 in terms of local food governance.

STRENGTHS, WEAKNESSES, OPPORTUNITIES, THREATS (SWOT) MATRIX FOR THE SUCCESS OF THE INITIATIVE

STRENGTHS

- GDA **status** allows mutual exchange between members, and between the GDA and members, **open governance**.
- Good **communication** skills.
- Strong **commitment** and **mobilisation** capacity of the 2 co-founders.
- Strong **commitment** of members.
- **Pluri-activity** which allows for economic resilience and the creation of synergies.

WEAKNESSES

- Blocking administration, **bureaucracy**.

OPPORTUNITIES

- **Few other structured initiatives** of this type in Tunisia: attracts international funders.
- **Informality** allowed by the Tunisian environment.

THREATS

- Few or **no paid staff** to manage the coordination of members.
- Relies on many **volunteers**.

ASSESSMENT OF THE INITIATIVE BASED ON INTERVIEWS CONDUCTED WITH

- **Dr. Taieb Benmiled**, co-founder, GDA Sidi Amor

CONCLUSIONS

>> STRENGTHS, WEAKNESSES, OPPORTUNITIES, THREATS (SWOT) MATRIX - BUILDING A SUSTAINABLE TERRITORIAL FOOD SYSTEM IN TUNIS

STRENGTHS

- Healthy traditional **Mediterranean diet**.
- Dense and sufficient **food offer**.
- Recognition of the equivalence of **organic labelling** with the European Union - rapid development of organic farming.

WEAKNESSES

- Difficult access to **credit** for small-scale farmers.
- Lack of **agricultural vocation** among young people.
- Few agricultural **cooperatives**.
- Few **artisanal processing units**.
- Obligation to go through the **wholesale market** to market food products in Tunis.
- An agricultural sector that **impacts water resources, soil and air**.
- Lack of **skills** among producers regarding sustainable practices.
- Lack of **awareness of food waste** among actors in the chain.
- Lack of consumer **awareness of healthy and sustainable food and food waste**.

OPPORTUNITIES

- A **wealthier socio-economic class** that is aware and can consume organic products sold in short circuits.

THREATS

- Increased **poverty** due to successive crises.
- **Rising costs** of agricultural inputs and food prices.
- **Global warming** and reduced rainfall.
- Increasing **dependence** on imports.
- **Western influence** changing food habits to more fast food and processed food.
- **Land pressure** from urbanisation leads to rising land prices.
- Socio-economic and political **instability** in the country.

>> STRENGTHS, WEAKNESSES, OPPORTUNITIES, THREATS (SWOT) MATRIX - STAKEHOLDERS MAPPING

STRENGTHS

- **Committed** and motivated **Mayor** and technical team.
- An ecosystem of **competent actors committed** to a sustainable food system.
- Strong technical and financial support from **international organisations**.

WEAKNESSES

- **Little state support** for small-scale farmers.
- **The subsidisation of bread**: limited nutritional quality and significant waste.
- **No structured public food aid** system, nor incentives for donations.
- Multiplication of **intermediaries** between the producer and the consumer.
- No system for **sorting and recycling organic waste** is managed by the Municipality of Tunis.

OPPORTUNITIES

- The emergence of **new NGOs** in favour of access for all to sustainable food.

MENACES

- **Dissolution of the Tunis Municipal Council** by the President in March 2023.

CONCLUSIONS

>> CONTRIBUTION OF TUNIS FOOD SYSTEM INITIATIVES TO THE UN SUSTAINABLE DEVELOPMENT GOALS (SDGs)

Methodology

- Identification of 11 fields for action in favour of sustainable territorial food systems
- Distribution of the 17 SDGs according to the 4 dimensions of sustainability of a food system (see proposed diagram).
- Qualitative evaluation of the contribution of the local food system initiatives to each of the dimensions based on the interviews conducted, bibliographic elements and initiatives identified.
- The evaluation consists of the attribution of a grade from 1 to 4 or 5, one point given for each SDG addressed.

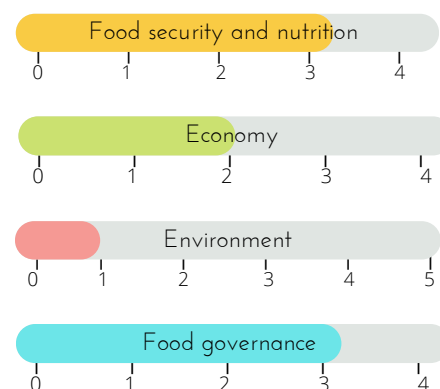


More information on the methodology used in the methodological guide "[Mettre en action les objectifs de développement durable de l'ONU par les projets alimentaires territoriaux](#)"

Contribution

18 initiatives identified in Tunis:

- Adding value to local products through agri-food processing: 0
- Development of short value chains: 5
- Education on healthy and climate-friendly diets: 2
- Enhancement of local heritage: 1
- Financial support for organic or sustainable agriculture: 1
- Food insecurity and social cohesion: 2
- Food waste management and fight against food waste: 1
- Local food governance: 2
- Protection and enhancement of agricultural land: 0
- Sustainable canteens: 0
- Urban agriculture: 4



RECOMMENDATIONS & COOPERATION OPPORTUNITIES

#1

Encourage the creation of agricultural cooperatives through incentives and by showing successful examples from elsewhere.

- **Targets:** Ministry of Agriculture, Association tunisienne de permaculture.
- **Examples:** Palestine Social and Economic Development Centre, Timouras Cooperative: Cooperative of young caper and fig producers in the province of Taounate (Morocco).

#2

Establish a municipal vegetable nursery to supply public gardens, schools and households with gardens with seeds and vegetable plants.

- **Target:** Municipality of Tunis.
- **Example:** Pépinière potagère de quartier, Ivry-sur-Seine (France).

#3

Experimenting with the participatory guarantee system to enhance the value of small producers' agroecological production.

- **Targets:** Association tunisienne de permaculture, Municipality of Tunis, Ministry of Agriculture.
- **Example:** The participatory guarantee system the RIAM farmers' markets (Morocco).

#4

Limit access to municipal markets to small-scale food producers only through a farmers' market charter

- **Targets:** Municipality of Tunis.
- **Example:** The "Marchés de producteurs de pays" brand of the Chambers of Agriculture (France)

#5

Experiment with a public-private partnership for the management of the urban park of El Mourouj2: shared gardens, agroecology training area, etc.

- **Target:** Association El Mourouj2, Municipality of Tunis.
- **Example:** Association "Les Jardins Nourriciers" (Drôme, France), "Gradske Baste" - urban gardens in Banja Luka (Bosnia-Herzegovina).

#6

Build an incentive-based regulatory framework to establish a functioning national food aid system

- **Target:** Tunisian Government and National Assembly.
- **Example:** In France, Garot law (2016), EGalim law (2018).

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