



GAZA
PALESTINE

**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 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.

GAZA

PALESTINE

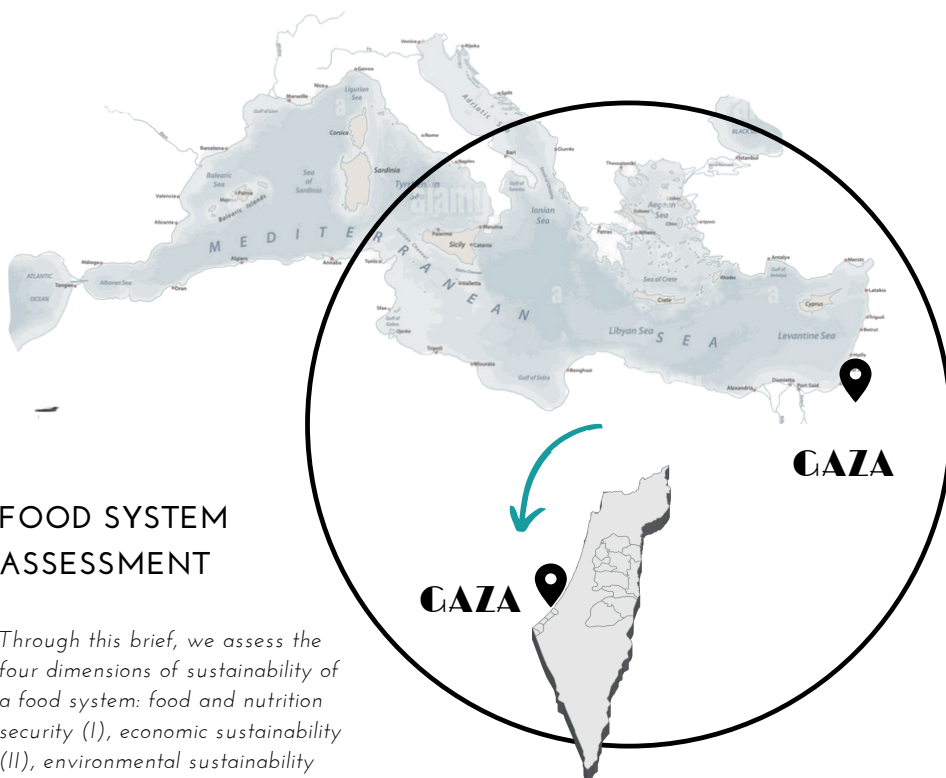
- 5.3 million inhabitants for 6,020km².
- Parliamentary democracy based on political pluralism
- The Palestinian Authority has ruled the West Bank and Hamas Gaza since the 2006 elections.

GAZA STRIP

- 2.2 million (1) inhabitants for 365 km² (3)

GAZA

- 590,481 inhabitants for 45 km² (7)



FOOD SYSTEM ASSESSMENT

Through this brief, we assess the four dimensions of sustainability of a food system: food and nutrition security (I), economic sustainability (II), environmental sustainability (III) and food governance (IV).

Introduction

Gaza City is located in the northern centre of the Gaza Strip, a Palestinian region on the Mediterranean Sea, whose main border countries are Egypt to the south and Israel to the north and east. The socio-economic situation of the country has collapsed since the 2007 elections: faced with the arrival in power of Hamas*, Israel has initiated a total blockade.

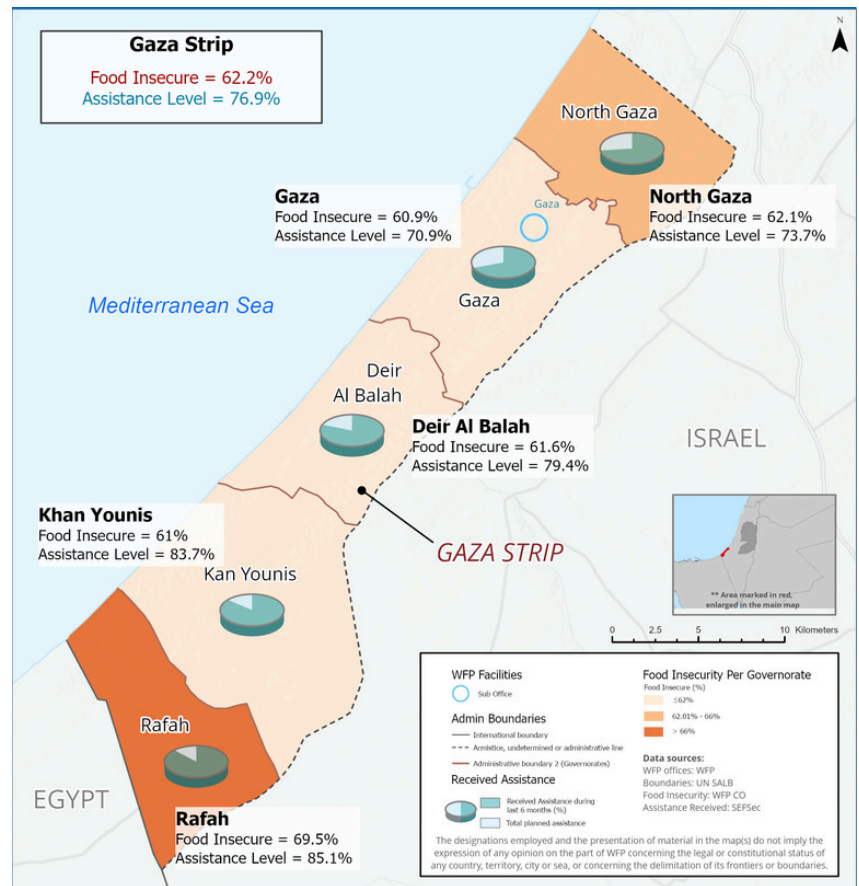
* Hamas is an Islamic nationalist group (considered terrorist by some countries) that emerged from the 1st intifada in 1987 - it has developed into an independent political organisation. Since the 2007 elections won by Hamas, the Gaza Strip is under their effective control. Hamas is involved in internal Palestinian political strife because it represents a hard-line, conservative opposition. Israel and the United States consider Hamas as a terrorist group: hence the blockade, in place since 2007, which is justified by security arguments but also to make living conditions difficult in the Gaza Strip and to encourage popular disassociation.

I. Food security threatened by geopolitical crisis and limited access to land

- Food insecurity rate in Gaza: 64.4% (24),
- Unemployment rate in Gaza: 47% (24),
- Poverty rate in Gaza: 59% (24),
- Share of Gaza's population living on humanitarian aid: 80% (24),
- Consequences of the Ukraine-Russia conflict: increase in wheat flour prices by 36% and fodder prices by 35-40% (20),
- 35% of Gaza's agricultural land and 85% of its fishing waters totally or partially inaccessible due to the occupation (23).

Since the 2007 blockade, the inhabitants of Gaza City have suffered the consequences of a regional geopolitical crisis. The internal market is affected by various restrictions on the movement of goods and people, agricultural services and access to land and natural resources, and chronic outbreaks of violence have reached record levels. Agriculture's contribution to GDP reached 3.8% in 2014 (18), but has been steadily declining since 1967 due to Israeli territorial expansion and control over fragmented pieces of Palestinian territory. On land, the separation wall and restrictions limit the ability of Palestinians to reach the fertile agricultural areas found in the Access Restricted Areas, and at sea, marine fishermen have limited access to 6 nautical miles (16). As a result, the city is heavily dependent on Israeli-controlled imports and has a structural deficit between its total food consumption and production. Gazans make their nutritional choices based on their low purchasing power and cannot have the freedom to choose quality products. This situation has led to the development of poor food consumption habits, with most food coming from humanitarian aid of limited quality and diversity (35). Some Palestinians are turning to urban family farming as a strategy to enhance their livelihoods resilience in crisis.

Food insecurity and humanitarian assistance on the Gaza Strip (WFP)



II. Local initiatives to revive a declining agriculture

MOHAMMED AL SHAQRA

"The Israeli-Palestinian conflict has a very significant impact on our food system, especially with regard to access to agricultural land for Gaza producers. By access, I mean the ability to physically go to their agricultural plots to tend the crops: the vast majority of Gaza's agricultural land is located in the buffer zone between Gaza and Israel. Access is restricted for security reasons: sometimes the area is closed overnight, without knowing for how long (1 day, 2 weeks, 4 months). The same thing happens with fishing and the restricted and unstable access to the sea for fishermen. This directly impacts the viability of their means of production."

Mohammed Al Shaqra, International Cooperation Unit, Gaza Municipality

- Main agricultural production: fruit trees (olives, vines, citrus, almonds, figs), field crops and vegetables (31),
- Average size of a farm: 18.6 dunums (1.9 ha) (2004) (31),
- Contribution of agriculture to employment: 5.4% (2017) (31),
- Contribution of the agricultural sector to GDP: 3.8% (2017) (31),
- Share of agricultural land inaccessible for geopolitical reasons: 46%,
- Reduction in the number of fishermen: - 66% since 2000.

To date, restrictions have made it impossible to increase agricultural and food production. The local economy is suffering directly from the blockade, which has almost completely banned exports and severely restricted all kinds of imports. At the same time, there has been systematic destruction of infrastructure (animal shelters, water wells, irrigation systems, residential structures), vandalism of water sources, levelling of land, denial of access to water and uprooting of productive trees. About 2.5 million fruit trees have been uprooted since 1967 (16). In addition, Israel bans items considered dual-use, thus preventing access to effective fertilisers and further damaging the productivity and sustainability of the local food system. The fishing industry is non-existent because fishermen can only fish within a 6-11 mile zone. Livestock is unproductive due to the unavailability of quality fodder, especially during the dry season, being brought in from Israel (16). Despite this, local NGOs such as the Gaza Urban & Peri-urban Agriculture Platform (GUPAP) help agricultural entrepreneurs - especially women - develop their food businesses: in the last three years, at least 100 women have been supported to obtain quality labels, training and/or access to local markets. In addition, GUPAP has successfully helped establishment of the Urban Women Agripreneurs Forum (UWAF) as a community-led space for rights advocacy, policy influencing and capacity sharing (35).



AHMED SOURANI

"There are 2 Ministerial policies and strategies for agricultural development (Gaza & WB) both are needed to be more coherent in order to meet existed challenges on the ground. In addition, we have about a 100 international NGOs: they mainly carry out emergency actions. It is necessary to strengthen the links between humanitarian actions for the development and structuring of the local food system. To do this, we need to strengthen the coordination of the different actors in the food system. With the GUPAP, we provide support to municipalities, we want them to understand their role in the local food system. They should adapt regenerative policies and strategies that contribute in enhancing resilience and sustainability of urban food system in addition to their existed traditional basic services."

Ahmed Sourani, Co-founder & General Coordinator of the Gaza Urban and Peri-Urban Agriculture Platform (GUPAP)



MOHAMMED EL SHATALI

"Access to water in Gaza is very problematic: the location of the territory and the nature of the soil lead to salinisation of the water contained in the water tables. Without a treatment unit, the use of this salty water in agriculture leads to a drop in agricultural yields. Furthermore, while Gaza should be able to capture some of the rainwater that floods the east of the territory, Israel sometimes collects this water before it can reach the Palestinian Territory. The effects of climate change increase this vulnerability to water access. There is a need to develop rainwater harvesting and salt water treatment systems."

Mohammed El Shatali, Agribusiness Consultant

COMPETENCES

Municipality of Gaza:

- Agriculture
- Water and sanitation
- Social action and health
- Economic development
- Spatial planning
- Cultural action
- Central market
- Solid Waste Management

III. Land polluted by conflict and industry

- *Water allocation: 92.9 million m³ for domestic use and 86 million m³ for agriculture (16),*
- *Quantities of untreated water discharged into watercourses: 103 million m³/year,*
- *Extra cost of organic products compared to conventional agriculture: 25% (29).*

Farmers in Gaza are not allowed to import highly concentrated fertilisers and some chemical compounds such as ammonium nitrate are totally banned. The alternatives available to them are expensive and inefficient, resulting in unbalanced soils, reduced agricultural productivity and increased production costs (16). In addition, they have to deal with sewage discharges, pesticide spraying, industrial, solid and toxic discharges from Israeli forces on their land (33). Water is becoming scarce, especially as the Gaza aquifer shows high levels of salinity and is thus becoming unsuitable for domestic consumption and agricultural use. There is a lack of sewage treatment infrastructure due to Israeli control over construction permits and imports of essential materials (16) (31). Accumulation of solid waste and untreated dumpsites have led to contamination of soil and water sources. 440,000 tonnes of food and agricultural waste are produced each year (25) which could be turned into compost to facilitate soil regeneration while reducing farmers' costs and reaching export markets. Organic produce is 25% more expensive than produce from convention farming, thus reducing access for most consumers. There is an interest in organic farming because it alleviates external dependency while restoring natural resources, but the socio-economic situation does not allow the population to buy organic produce and the farmers to live sustainably (37). Organic products are then sold at the same price as conventional products. Farmers therefore do not benefit from the associated added value (29).

IV. Limited means, but an interest from the municipality to develop local agriculture

- *2018: addition of the competence "agriculture" to the mandate of the municipality,*
- *City Food System Actor Network (CFSAN): Gaza Food System Actor Network, facilitated by GUPAP.*

Conflicts between the Palestinian Authority (PA) and Hamas and the distribution of responsibility for agricultural and food policies between different entities (Ministry of Agriculture, Economy, Palestinian Water Authority) imply difficulties in coordinating public action, particularly in favour of a sustainable food system. Moreover, Palestine has two Ministries of Agriculture due to the separation between the West Bank and the Gaza Strip (35). Finally, cross-cutting approaches to food are difficult to implement due to a lack of financial resources: the budget of the Ministry of Agriculture represents 1% of the total budget (31).

International NGOs, which are numerous in the Gaza Strip, compensate for the inaction of the public authorities (31). They work closely with Palestinian farmers often developing actions that aim to respond to the emergency but do not allow for the structuring of strong local sectors (35). Since the allocation of agricultural competence to municipalities (2018), the municipality of Gaza has been supporting local producers in various ways: raising awareness of the consumption of local products, experimenting with composting to create a natural fertiliser sector for local producers, developing urban agriculture, etc. (37). GUPAP is also a central player in Gaza: through the Agroecology and Family Farming Forum, GUPAP supports male and female farmers in various ways to enable them to make a living from their activity. Finally, since 2022, GUPAP has created and led the City Food System Actor Network, the first local governance body that aims to coordinate and amplify public, associative and private actions in favour of building a sustainable food system for Gaza (35).

A FEW INITIATIVES FOR SUSTAINABLE URBAN FOOD SYSTEMS

GAZA MUNICIPALITY - ACTIONS FOR A SUSTAINABLE FOOD SYSTEM

- Experimentation with the collection and composting of household food waste,
- Awareness campaigns for residents and producers on the importance of preserving ecosystems and supporting the local agricultural economy,
- Support for the development of urban agriculture on rooftops,
- Partnership with CFSAN and reflection on the adaptation of regulations for a more sustainable food system,
- Collaboration with the private sector to support local producers and promote their potential to compete with imported products.

FOOD AID FROM UNRWA

- United Nations Agency for Relief and Assistance to Palestinian Refugees
- Education, Health, Relief, Food aid, Infrastructure and camp improvement

MA'AN DEVELOPMENT CENTRE

- Research institute,
- Support for organic agriculture (almonds, vegetables and dates) and aquaculture.

PALESTINIAN HYDROLOGY GROUP

- Non-profit organisation,
- Aims: to raise awareness to protect water resources, provide access to water and sanitation services for all.

GAZA URBAN & PERI-URBAN AGRICULTURE PLATFORM (GUPAP)

- Creation of the "Family Farming Forum in Gaza" platform to promote the exchange of experiences
- Technical support for women with agricultural or agri-food processing projects: skills development, provision of equipment, creation of cooperatives
- Creation of a degree in urban agroecology and food sovereignty as part of a partnership project "Gaza Food Ways"
- Creation of discussion groups for farmers on specific themes (seeds, water, etc.)
- Technical support for the installation of home and roof top gardens
- "Solidarity marketing" project: In collaboration with 3 international organisations, purchase of products from small women producers in order to meet the needs of the most vulnerable.
- Influence on policies to enhance and encourage community led actions in crisis and existed positive coping mechanism like: Jam'ia approach, coping with climate change, urban vertical agriculture/production, women pastoralism, micro seeds banking, rainfall water harvesting systems and other urban family farming activities.
- Establishment of a local seed bank
- Support for the development of local fodder production projects, to reduce farmers' dependence on imported fodder
- Creation and animation of the City Food System Actor Network (CFSAN) in cooperation with other partner organizations.

CENTRE FOR SOCIAL AND ECONOMIC DEVELOPMENT IN PALESTINE

- Non-profit organization.
- Vision: an economically independent and socially just Palestinian cooperative society
- Actions to strengthen the value chain of cucumber production, renewable energy, solid waste recycling.

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