



CHEFCHAOUEN

MOROCCO

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.

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.

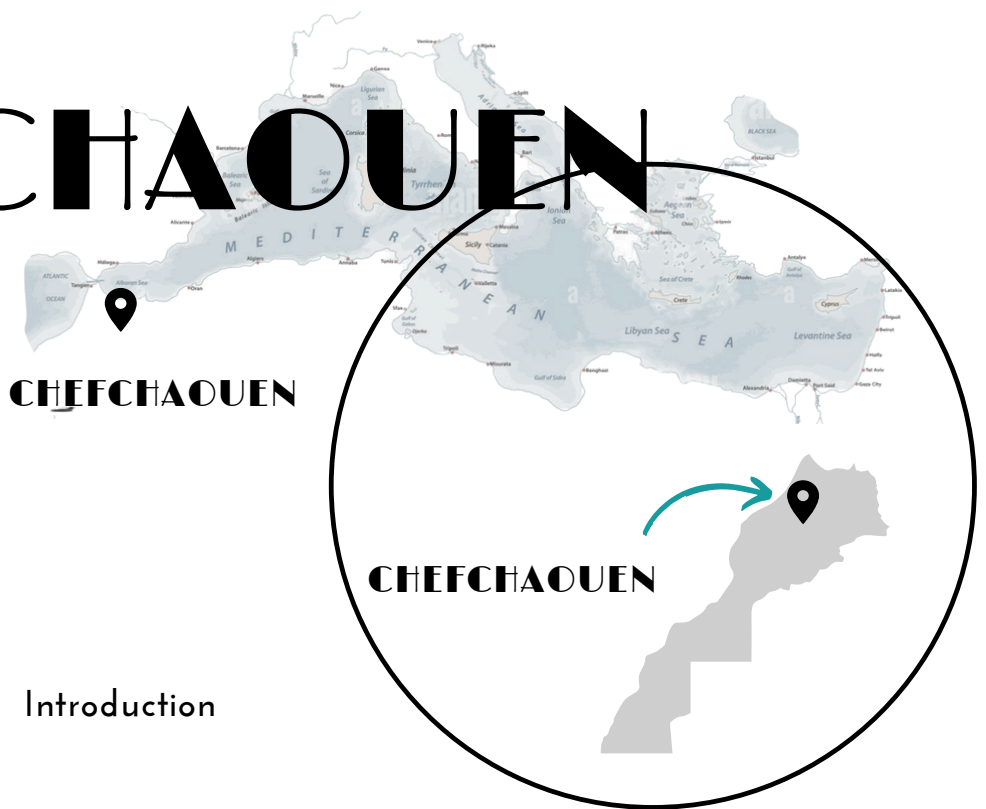
CHEFCHAOUEN

MOROCCO

- 710 850 km² (including Western Sahara) with a population of 37,344,787 inhabitants (2021) (1)
- Constitutional monarchy (King Mohammed VI)
- Head of government: Aziz Akhannouch (since 2021), Rassemblement National des Indépendants Party (RNI)

CHEFCHAOUEN

- Province: 3,443 km² with a population of 457,432 inhabitants (2021) (1)
- City: 907 km² with a population of 42,786 inhabitants (2021) (1)
- Mohamed Sefiani: President of the Municipal Council since 2009 (Istiqlal Party)



Introduction

Chefchaouen is the capital city of the province of the same name and one of the main cities in the Tanger-Tétouan-Al Hoceïma region, in northern Morocco. In this predominantly rural province, with an urbanization rate of only 12.5%, the city of Chefchaouen aims to develop its tourism sector while preserving and protecting local traditions and landscapes. The province is crossed by the Rif mountain range.

I. Food security

- *Urbanization rate of the province: 12.5%*
- *Provincial agricultural land: 106,767 hectares, approximately 25% of the total area*
- *Number of irrigated hectares: 9,353 hectares, representing 8.7% of the total cultivated area*
- *Poverty rate: 4.7% at the provincial level and 0.8% at the city level*
- *Provincial unemployment rate: 4.8% (2.6% in rural areas and 23.9% in urban areas) (1)*

Limited food self-sufficiency due to a rugged agricultural landscape and the cultivation of cannabis

The province of Chefchaouen is characterized by highly rugged terrain with various exposures. The climate is Mediterranean and is characterized by relatively significant average precipitation, ranging from 900 mm to 2000 mm on the Atlantic side and from 300 mm to 500 mm on other exposures (35). The province is predominantly rural and traditionally based on pastoralism (mainly goats), orchards (olive trees, fig trees, almond trees, vines), and some cereal cultivation, with also extensive access to the sea. New activities are gradually developing, driven by young farmers and supported by the Provincial Directorate of Agriculture, such as vineyards, avocado cultivation around Oued Laou, and also crushing or hemp production (for example, a cooperative that produces bricks) (37).

Fishing activity in the province benefits from 120 km of coastline along the Mediterranean coast. This economic zone has a port in Jebha, a fishing village in Chmaala, and three landing points in Amter, Targha, and Kaa-Asras. In 2016, there were 513 registered fishing vessels, mainly fishing boats (458 units), as well as sardine boats (38 units), trawlers (10 units), and longliners (7 units) (1).

Despite ongoing agricultural diversification, the province of Chefchaouen relies on imports from other regions of Morocco or abroad to meet the food needs of its residents.

ABDELGHANI LAKHDAL

"We wanted to build a network of committed restaurants to promote local products and cooperatives in the area, especially among foreign tourists. One restaurant agreed to purchase more expensive products (+30%) because they were committed and wanted to enhance the reputation of their restaurant. We found other restaurants interested in the project, but logistics became a barrier: Chefchaouen was too far for farmers in Ouezzene. Our association financed two facilitators, the order, delivery, etc., but we couldn't find an economic model, and the project stopped with the end of funding."

Abdelghani Lakhdal, Coordinator of the Fondation pour l'Humain, terroir et alternatives: AFHTA association

A relatively preserved healthy Mediterranean diet with limited Western influence

Despite the increasing diversification of diets, consumption habits in Chefchaouen remain based on the Mediterranean diet, consisting of fruits, vegetables, legumes, cereals, herbs, olive oil, and moderate consumption of dairy products from various sources (goat and sheep). This diet has been enriched over time by Moorish, Andalusian, Turkish, English, French, and other influences.

"Inscribed in 2013 on the Representative List of the Intangible Cultural Heritage of Humanity, the Mediterranean diet involves a set of knowledge, rituals, symbols, and traditions related to the cultures, harvests, gathering, fishing, farming, preservation, processing, cooking, and especially the way of sharing the table and consuming food. Eating together is the foundation of the cultural identity and continuity of communities in the Mediterranean basin. (...) It plays an important role in cultural spaces, festivals, and celebrations by bringing together people of all ages, classes, and conditions. It includes craftsmanship and the production of objects for the transport, preservation, and consumption of food, including ceramic dishes and glasses. Women play an essential role in transmitting the knowledge and know-how of the Mediterranean diet, in preserving techniques, respecting seasonal rhythms and festive occasions on the calendar, and passing on the values of this element to the new generations. Similarly, markets play a key role as spaces for the culture and transmission of the Mediterranean diet, in the daily learning of exchange, mutual respect, and agreement." (6)

This diet translates into a high-quality food intake that represents the majority of meals for the inhabitants of Chefchaouen, who are still deeply rooted in ancestral culinary traditions. These practices result in a low prevalence of non-communicable diseases typically associated with dietary habits. For instance, diabetes in the province affects only 1% of the population (compared to almost 8% in the country), and there is almost no malnutrition, overweight, or obesity (<0.1%). However, some children under the age of 5 suffer from malnutrition or obesity, primarily in rural populations (19).

Furthermore, the city of Chefchaouen welcomes over 120,000 tourists annually. It boasts numerous attractions, including its approximately 10 km² Medina, which dates back to the 15th century. Tourists also contribute to the demand for local products that promote health, such as bessara, samet, and cheese (23).

However, although the province of Chefchaouen remains relatively preserved, young people are increasingly drawn to fast-food chains and the variety of products offered by supermarkets that are proliferating in major Moroccan cities. In Chefchaouen, there are relatively few young people, as they leave the city to study in larger cities and do not necessarily return (27).

Diverse food offerings in Chefchaouen but a poorly performing road network limiting access to food for rural populations

In the Province of Chefchaouen, the food supply is mainly concentrated in the city of Chefchaouen and its surroundings. Purchases are mostly made in souks or markets, with vendors being either local farmers selling their products in batches or wholesalers retailing products from outside the province. Along the routes leading to the main souk (held twice a week), many women sell "beldi" ("natural") products that they buy from local farmers. As part of the "Mediterranean Diet" project, they will soon benefit from a dedicated space organized by the governor to promote these products to both local and tourist consumers (16) (37). There are a few small convenience stores in the city center but no large supermarkets in Chefchaouen (37).

Currently, only 10% of the province's population lives in the city of Chefchaouen. Therefore, rural residents need to access the city via the road network to have access to a diverse food supply. However, the road network is in poor condition: in 2016, the average distance between households and the nearest paved road was 6.3 kilometers in the province. There is also no public transportation outside of shared taxis.

This limits rural populations' access to a diverse food supply and also restricts producers' access to urban markets, especially in a context of rising energy prices for transportation (1). However, rural populations can rely on informal exchanges (farm purchases, roadside vendors, etc.) to ensure a minimum access to basic food items (37).

A more vulnerable rural population compared to the urban population

The poverty rate of the provincial population (4.7% in 2014) is higher than the regional poverty rate (2.7%), with significant differences between urban and rural areas. The rural population has a much higher poverty rate (5.2% compared to 0.7%) as the majority of rural residents rely on subsistence agriculture with low income. Some cases of suicides due to extreme poverty have recently gained media attention. There are approximately 35 suicide cases each year in the province of Chefchaouen, a number considered very high by local authorities (17). This precarious situation directly affects the access to food for rural populations in Chefchaouen, who rely on their income for sustenance. This vulnerability is further exacerbated by the recent increase in food prices due to inflation in global markets: according to the High Commission for Planning, the inflation rate reached 9.4% in the first quarter of 2023, compared to 4% during the same period last year. This inflation has led to a sharp rise in food prices, with a 16.8% increase between January 2022 and January 2023 (41).

There is no institutionalized food assistance system in the province outside of the Ramadan period, during which a certain number of families receive assistance. In response to the economic consequences of the 2020 health crisis, the Municipality of Chefchaouen, with the assistance of the Hassan II Foundation, allocated a specific budget to aid families and distribute food products (38).

Unconscious awareness of sustainable food practices, hindered by inconsistent access to education

The inhabitants of Chefchaouen and its province, who are particularly attached to their terroir and Mediterranean food traditions, tend to consume fresh food products that they cook at home. However, the school infrastructure is insufficient, with a high dropout rate, which prevents the use of the education system to inform from an early age about the behaviors to adopt for a healthy lifestyle and a sustainable food system (7). The illiteracy rate among the population aged 10 and above in the province, according to the 2014 census, is 40.2%, with a disparity between genders: 26.4% for males and 55% for females. The availability of vocational training is also very limited, which restricts the territory's capacity and its inhabitants' ability to create sustainable and lucrative permanent jobs, as well as a more sustainable vision for the region (7).

II. Economic sustainability

- 85% of the province's active population is employed in the agricultural sector (7)
- The agri-food sector accounts for less than 200 jobs in the province (1)
- In 2020, the average salary of a Moroccan farmer was 3,028 DH/month in 2019 (equivalent to 284 €) (27)
- The agricultural land area in the province is approximately 106,676 hectares, which represents almost 47% of the province's territory, which is very high for a mountainous region (1).
- In 2016, the forestry sector generated 6 million dirhams, approximately 550,000 euros (1)
- The forest area covers more than 9 million hectares, representing a forest cover rate of 12.7% of the national territory (34)

Low-income agriculture due to various constraints

In the territory of the province of Chefchaouen, agriculture represents the main source of household income: 85% of the province's active population, predominantly rural, works in this sector (7). However, it remains subsistence agriculture, with low yields and agricultural products being infrequently marketed.

TAZI ABDELILAH

"The cannabis industry is responsible for a significant loss of traditional agricultural potential. It is necessary to reintroduce training programs that contribute to the preservation of knowledge and skills among people aged 60 and above (equipment, techniques). We are currently witnessing a transition phase in the cannabis industry, where production will now be controlled for pharmaceutical purposes, etc. The challenge at the territorial level is to develop processing units and anticipate the necessary training programs in rural areas to accommodate employment."

Tazi Abdelilah, President of the ATED Association

This can be explained by various factors:

- Parcel structure, with the majority of land being sloping: This characteristic hinders mechanization and automation of production, which would increase yields (7).
- Soil erosion and degradation: The climatic conditions and mountainous nature of the territory result in rapid soil erosion, leading to a decrease in fertility and therefore yields (35).
- Unfavorable climatic conditions: The scarcity of precipitation threatens rain-fed agriculture, particularly livestock farming. The number of livestock has been decreasing, despite it being a significant economic activity in the past (with 587,000 animals in the province of Chefchaouen) (37).
- Difficult access to agricultural land on the outskirts of Chefchaouen: Additionally, the uncontrolled development of the city has led to urban sprawl, reducing available agricultural land surrounding the city.
- Commercialization through numerous intermediaries: In order to sell their products directly in the markets of Chefchaouen, producers must request permission, which is not automatically granted (or not requested due to administrative complexities). As a result, they often sell their production to intermediaries who act between the producer and the consumer. Due to limited bargaining power, small-scale producers receive a small portion of the product's price, to the detriment of the producers themselves (37).
- Insufficient road infrastructure limiting access to urban markets: The lack of paved roads restricts the opportunities for rural small-scale producers to access the food markets in Chefchaouen.
- Inflation and rising costs of inputs and energy: Farmers face increasing production costs and expenses associated with marketing (travel to the city). However, they pass on very little of this increase to the selling price, unlike intermediaries (37).

While the agricultural sector remains the primary employment sector, the pedo-climatic and economic constraints push farmers to abandon their activities or, in extreme cases, to resort to suicide (5). Some populations have been forced to migrate to Tanger or Tetouan (37). The profession is not attractive to young people, leading to an ageing workforce. To encourage the establishment of young farmers, the Provincial Directorate of Agriculture (DPA) is working with ONCA to raise awareness among farmers and the children of farmers through field schools. This program aims to facilitate the transfer of farms (37).

Will the more profitable cannabis production lead to an improvement in the livelihoods of the producers or jeopardize subsistence food production?

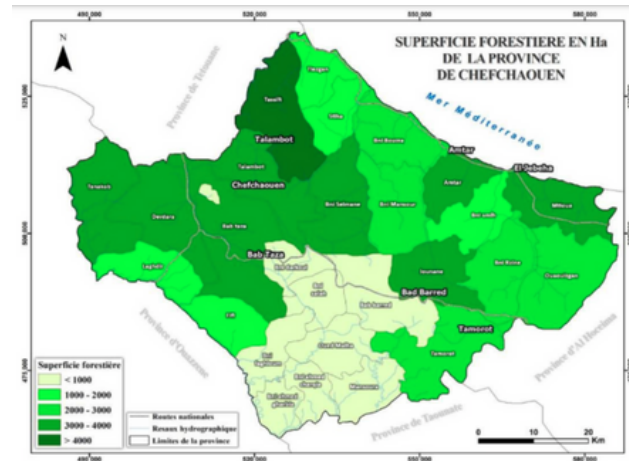
To increase their income, some farmers engage in the illegal cultivation of cannabis. In 2005, 90% of farmers were cultivating cannabis, and this activity could represent 60% of their income (21). The cultivation of medical, cosmetic, and industrial cannabis became legal in 2022, to improve farmers' income and guide them towards more sustainable practices (such as crop rotation, soil erosion, etc.) (25). The National Agency for the Regulation of Cannabis Activities (ANRAC) was established in 2023. Its mission is to implement the state's strategy regarding the cultivation, production, manufacturing, transformation, commercialization, exportation, and importation of cannabis-based products for medical, pharmaceutical, and industrial purposes. It also provides adapted seeds to farmers. However, since the international market for medical cannabis is already saturated, illegal activities could continue. The conversion of farmers is complex because they have lost a lot of expertise and know-how related to food crops while focusing on cannabis. Additionally, few crops can compete with the speed of cycles and return on investment of cannabis. The strengthening of border controls has significantly devalued the green gold of the Rif province. Furthermore, ANRAC now requires farmers to implement rotations between cannabis cultivation and crops such as wheat, tomatoes, or potatoes. Cannabis cultivation can occupy a maximum threshold of one-third of the surface area of farms. According to Tazi Abdelilah, president of the ATED association, the territorial challenge now is to develop local transformation units to absorb employment in the cannabis sector. To achieve this, it is necessary to anticipate the necessary training for cannabis transformation (39).

HABIBA ZGUAID

"The Green Generation, a new agricultural state program for 2020-2030, plans to develop markets and create a wholesale market with the aim of reducing the number of intermediaries. The Provincial Agricultural Directorate, in partnership with the Chefchaouen Municipality, organizes fairs to promote local products and the cooperatives we support. One of the objectives of Generation Green is the grouping of farmers, which is challenging to achieve in Chefchaouen because people are not willing to join together, and many conflicts, sometimes of a familial nature, persist."

Habiba Zguaid, Head of the Agricultural Production Projects Implementation Department at the Provincial Agricultural Directorate (DPA)

A significant forestry activity, threatened by fires and cannabis cultivation.



Forest area in the province of Chefchaouen by municipality (Source: Lakhouaja et al., 2017)

Forestry also represents an economic resource for the rural population. The forest covers 145,000 hectares in the province and consists of cork oak, fir, cedar, maritime pine, as well as the unique massif of Moroccan fir (*Abies marocana*) (7). Wood is primarily used in the region for carpentry, craftsmanship, construction, and energy production ("wood energy"). Wood energy refers to the use of wood as a fuel, employed in various forms (mainly forest chips, pellets, and logs) and in different installations (domestic, commercial, industrial, or collective, supplying heat networks or not).

In Morocco, 6.35 million tonnes of firewood are annually harvested from forests. The deficit is estimated at 3.1 million tonnes, leading to the disappearance of over 20,000 hectares per year (36). In 2016, nearly 6 million dirhams were generated from forestry operations in the province of Chefchaouen (1). In the province of Chefchaouen, the two main causes of direct degradation of the forest capital are clearing for cannabis cultivation and harvesting for firewood (for cooking, machinery, etc.) (36). In 2011, cannabis cultivation was present throughout the entire territory of the Chefchaouen province without exception and accounted for over 60% of agricultural production, affecting more than 40,000 households (35). It is responsible for a portion of the forest fires as farmers clear the land to establish new cannabis crops.

The government supports the creation of small agri-food processing tools

The agri-food sector dominates the industrial activity in the province of Chefchaouen. In fact, the city accounts for 80% of all industrial and commercial establishments, provides employment for 37% of the city's workforce, and contributes 50.8% to the total turnover of industrial enterprises. As for industrial value added, it amounts to 7.1 million dirhams, more than half of which is attributed to the agri-food and chemical industries.

Thus, the agri-food industry represents 10 industrial units and approximately 200 jobs in the province. Olive crushing and fig drying are the main agri-food activities in the province (1)(7). In 2016, the province of Chefchaouen also had a municipal slaughterhouse in the city of Chefchaouen and 14 controlled rural slaughterhouses (1).

However, some jobs in the agri-food sector are primarily seasonal, such as olive harvesting, fig drying, or goat cheese production during periods of high lactation. The DPA aims to increase production capacity and create new small-scale processing tools (easier for management) to capture added value, create jobs, and smooth cash flow throughout the year, which is not possible with the sale of fresh products. In partnership with cooperatives, the DPA supports individuals who wish to carry out on-farm processing, including compliance to obtain ANSA accreditation, purchasing equipment, and distributing more attractive packaging for marketing purposes (37).

HABIBA ZGUAID

"There is organic production in the territory, but it is not certified, there is no traceability, especially in arboriculture. Farmers do not use pesticides or fertilizers. The DPA funds the study for organic certification for farmers, and the Ecocert consultancy firm provides certification. In Chefchaouen, we have a cooperative that valorizes cereals in organic farming and has expressed a desire to export because the external market is much more lucrative for organic products.."

Habiba Zguaid, Head of the Agricultural Production Projects Implementation Department at the Provincial Agricultural Directorate (DPA)

In order to facilitate access to land for the establishment of these processing units, the State (Regional Directorate of Agriculture and Agricultural Development Agency) is seeking to valorize and lease collective "habouz" public lands (approximately 700 hectares in the province of Chefchaouen). Project promoters can submit a business plan that will be evaluated by a public commission. Two olive-crushing units will be constructed on these collective lands. These projects aim to create virtuous cycles for territorial development: the cooperative in charge of the crushing unit commits to prioritize the community that operates the lands for equipment purchases, training, etc (37).

The state program "Generation Green" (2020-2030) also includes an important component of entrepreneurship, specifically targeting young people. The government provides loans at preferential rates and supports candidates from the project idea stage to its presentation to banks and investors. Many proposed projects are related to agriculture, such as agrotourism (acquisition of guesthouses), nurseries, production of organic snails or medicinal plants, and value-added tools for products.

There are a few isolated initiatives to facilitate the distribution of local products

Various initiatives have been launched by the government to facilitate small producers' access to markets that allow them to make a decent living from their activities. The Generation Green program includes the development of markets and the creation of wholesale markets in Dardara to reduce the number of intermediaries (37). The DPA and the municipality also organize fairs to promote local cooperatives and products from the region. However, cooperatives face difficulties in Chefchaouen as farmers are reluctant to join forces due to persisting conflicts, sometimes of a familial nature (37).

While some restaurants attempt to source locally, many do not give a "good image" of Chefchaouen according to the President of Chefchaouen, due to hygiene and working conditions in these establishments. Following an inspection operation, many restaurants have been closed for these reasons. The community aims to provide training for restaurant owners to preserve the tourist appeal of Chefchaouen (38).

III. Environmental sustainability

- 7 restaurants and 17 farmers were part of a local, agroecological, and organic food network
- In Morocco, the quantity of pesticides and chemical fertilizers used is estimated at 1.46 kg/year/ha in 2016 (compared to 6.68 kg/ha in Belgium and 3.63 kg/ha in France in 2017) (27)
- 50% of irrigated land in the Tanger-Tétouan-Al Hoceïma region is equipped with drip irrigation systems (1)
- Deforestation is caused by illegal cannabis cultivation and overgrazing
- 8,760 tons of waste are produced by the city each year (23)

An agricultural sector threatened by water scarcity

With 600 m³ of water available per capita per year, North African countries are already well below the water scarcity threshold, estimated at 1,700 m³ per capita per year, according to the World Health Organization (32). In fact, more than 80% of the water in Morocco is used for agriculture, a key sector of its economy, accounting for 14% of GDP. According to the World Bank, Moroccan agricultural policy "favors water-intensive fruit tree cultivation and marginalizes small-scale producers." This policy relies on drip irrigation, which leads to increased water consumption, in order to make arid areas cultivable. Morocco has tripled its irrigated areas with this technology, and it may "have altered cropping decisions in a way that increases rather than decreases the total amount of water consumed by the agricultural sector," according to the World Bank (32).

The production of cannabis and livestock contributes to deforestation and soil erosion

Forests cover over 100,000 hectares in the region, but they are threatened by deforestation caused by the illegal cultivation of cannabis and agricultural production. Farmers attempt to compensate for the low productivity of their land by expanding their agricultural areas, often at the expense of forests.

TAZI ABDELILAH

"It is important for the stakeholders to be able to communicate about the territorial brand and gain economic benefits from it. However, it is also necessary to raise awareness among consumers and tourists about the importance of purchasing authentic products for this system to work."

Tazi Abdelilah, President of the ATED association

Overgrazing and overexploitation contribute to soil erosion and deteriorate soil quality and fertility (8). However, due to water scarcity, many livestock breeders have chosen to reduce their herds, which has helped mitigate the consequences of overgrazing on soil quality (37).

Cannabis cultivation accounted for 44% of arable land in 2005, and slash-and-burn deforestation is a common method used to clear land for cannabis cultivation. Cannabis production also relies heavily on the use of chemical fertilizers. Farmers often lack proper training on their usage and tend to apply excessive amounts, leading to soil and water pollution. However, this phenomenon is gradually decreasing due to the rising cost of inputs (37).

Support for agroecological practices

Organic farming exists in the region but is not officially certified. Products labeled as "ecological," "natural," or "beldis" are sought after, and their quality is based on trust between producers and consumers. Particularly in arboriculture, farmers refrain from using fertilizers or pesticides. The Provincial Directorate of Agriculture encourages producers to engage in certification and provides financial support for the various steps conducted by Ecocert. Depending on export strategies, farmers choose either the "Bio Maroc" or "Bio European" certification. European markets offer higher remuneration than the domestic market, but the Directorate of Agriculture seeks to promote local organic offerings to tourists, the Meknes fair, and supermarkets (37).

The Provincial Directorate of Agriculture collaborates with the National Agricultural Advisory Office to train farmers in agroecological practices such as crop rotation, soil protection, and intercropping (particularly in arboriculture, incorporating vegetable crops or wheat between the rows). These institutions also guide farmers towards plant species better suited to the region's soil and climatic conditions, such as carob trees, fig trees, and cacti (37).

The municipality aims to support the development of agroecology by establishing a "territorial quality label for the Mediterranean nutrition system." This label is awarded to farmers practicing agroecological methods and refraining from using synthetic products. It also applies to restaurants sourcing their products from certified farms. The specifications of the territorial brand have been developed in collaboration with various stakeholders, including agriculture and craftsmanship. Criteria include environmentally friendly production of raw materials, product origin and quality, as well as energy management (39). In 2018, this initiative involved 7 local restaurants and 17 farmers (11). Currently, there are no active participants, but the program is expected to be relaunched when future funding opportunities arise (38). According to Tazi Abdelilah, President of the ATED association, it is now necessary to test the territorial brand with restaurants, cooperatives, and lodges while supporting the various stakeholders in meeting the criteria (39).

The consumption patterns of Moroccans: significant and impactful food waste

Even though meat consumption is limited in Morocco compared to the rest of the world, it is rapidly increasing and is by far the most impactful in terms of greenhouse gas emissions and water consumption. It amounted to 31 kg per person per year in 2018, compared to 85 kg in France (27).

In the MENA region (Middle East and North Africa), around 250 kg of food is wasted per person every year. According to a report by the FAO, the United Nations Food and Agriculture Organization published in 2019, one-third of the region's food resources end up in the trash. On average, for a week of a farmer's work, 3 days are dedicated solely to producing food that will later be thrown away. Globally, this waste is responsible for nearly 8% of greenhouse gas emissions (29) (42).

Food waste primarily occurs during the agricultural production stage (poor stock and infrastructure management) and during consumption. In Morocco, households waste between 32% and 34% of the food they purchase (29). During the Ramadan period, 45.1% of Moroccan families throw away the equivalent of 6 to 51 dollars per month, which amounts to 60 to 500 Moroccan Dirhams (28)."

MOHAMED SEFIANI

"The municipality does not have a dedicated budget for food, but we are responsible for food markets and we work on promoting local products. We heavily rely on decentralized cooperation to finance projects that enhance local products and preserve the environment (Andalusia, Dijon), and sometimes we utilize funds from the Ministry of the Interior to develop kiosks for selling local products in the city (through calls for projects to which cooperatives and small producers can respond). The residents of the Chefchaouen province are increasingly interested in purchasing quality local products, as well as tourists."

Mohamed Sefiani, President of the Municipal Council of Chefchaouen

TAZI ABDELILAH

"Local authorities should be the local driving force; elected officials need to be trained and knowledgeable about agricultural and food issues as well as politics. People need to have political convictions; we need to create coherence and provide true political value, otherwise, people lose interest. It requires commitment and competence."

Tazi Abdelilah, President of the ATED association

The management of waste poses a colossal challenge in Morocco, especially for local authorities who are responsible for it. Until 2002, Moroccans managed their waste on their own. In 2002, they witnessed the establishment of the first controlled landfill that complied with environmental standards. As a result, waste management is a recent affair in Morocco (30).

In 2018, the city of Chefchaouen decided to entrust its waste management to the private company Ozone for a period of 7 years. Ozone dominates the waste management market with a portfolio of 48 delegated management contracts in Morocco (31). Since food waste represents 70% of the total waste in the city, the Municipality plans to implement a composting or anaerobic digestion system to recover these biowastes (12). The French Development Agency and GIZ have started a study to characterize the waste and consider different valorization pathways (38). However, there is currently no coordination between the recovery of biowaste and green waste by the company Ozone in Chefchaouen and the utilization of this compost as fertilizer by local farmers.

The Provincial Directorate of Agriculture is minimally involved in composting issues with farmers: some projects attempt to integrate collective units within agrotourism projects, but practical implementation is not part of ONCA's training (37). These efforts could indirectly improve the quality of water and forests, which are heavily polluted by illegal dumps (13).

In order to preserve water quality in the face of margins, and waste from olive crushing, a water recovery unit project is under consideration. A feasibility study, funded by INDH, has just begun. A discussion has also been initiated regarding a unit for transforming olive pomace (37).

IV. Food sovereignty

The competencies of the municipality of Chefchaouen

In Morocco, since 2015, the state has initiated decentralization by transferring some of its competencies to local authorities, including granting them larger budgets and more autonomy to choose their operators. For example, regions are responsible for spatial planning and development, provinces are responsible for local rural development (transport, infrastructure), and municipalities are in charge of providing local services to citizens, such as waste management, public lighting, or cleaning, for instance. However, agricultural and food policies, including the use and protection of agricultural land, largely depend on the state, which aims to develop the production of high-value-added products for export. Municipalities do not have their own "food" competencies or dedicated budgets.

Ambitious food public policies led by the Municipality

Despite limited resources, Chefchaouen has initiated numerous ambitious public policies concerning its food system. The Municipality aims for Chefchaouen to be an ecological city and is therefore working to improve the efficiency and ecological and social impact of its food system.

To strengthen the territorial anchoring of projects, the Provincial Directorate of Agriculture is fostering closer ties with the municipalities in the province of Chefchaouen to work collaboratively. The Directorate would like to involve them in financing working capital for the maintenance of orchard plantations (hoeing, mulching, watering, etc.) for producers. The Municipality has the expertise to provide financial support to all cooperatives in the province during this stage. This would also help create local employment opportunities (37).

Partnerships between the Region and the Municipality of Chefchaouen have been relatively limited so far. The President of Chefchaouen has chosen to join the "Finance and Budget" Commission of the Region, which will facilitate synergies in the future (38).

MOHAMED SEFIANI

"Among the upcoming actions to be carried out in Chefchaouen is the reinforcement of awareness among professionals and citizens about the issues of sustainable agriculture and food. We need dedicated human and financial resources, as well as communication tools adapted to the local context (videos, etc.), a museum, festivals, local theater performances, local influencers, as well as committed restaurateurs, associations, and tourist establishments."

Mohamed Sefiani, President of the Municipal Council of Chefchaouen

ABDELGHANI LAKHDAL

"The main obstacle for our association is the financial factor: the National Initiative for Human Development (INDH) particularly funds cooperatives, and the project calls from the United Nations Development Programme (UNDP) are directed towards the region. We are forced to rely on international cooperation."

Abdelghani Lakhdal, Coordinator of the Fondation pour l'Humain, terroir et alternatives: AFHTA association

TAZI ABDELILAH

"Nothing is consistent at the association level; I am always stressed about ensuring everyone's salaries, constantly working on new projects. There is no regularity, but there is mutual trust with our partners. However, they also face budget constraints."

Tazi Abdelilah, President of the ATED association

Civil society actors are still few in number and receive limited support

The number of associations in Chefchaouen is limited, but some are well-structured, such as the Association for Local Development and ATED. Through funding from decentralized cooperation, they develop projects to improve the quality of life for residents, particularly farmers, and preserve the environment. It is now necessary to maintain these activities and support the development of a more comprehensive and robust ecosystem in order to multiply projects and strengths.

Citizen consultations on the issue of food and the transition to a more sustainable food and agricultural system are needed

As provided for by law, Chefchaouen Municipality has an "equal opportunities, parity and gender approach" commission, which brings together local civil society players to give their opinions on the various regional projects. This commission worked on the 6-year Municipal Action Plan via thematic consultations (38). Nevertheless, citizen consultation in the construction of public policies remains limited to date.

Chefchaouen: an emblematic community of the Mediterranean diet

Since 2010, Chefchaouen has been recognized as an Emblematic Community of the "Mediterranean Diet" in the intangible cultural heritage of UNESCO, alongside the cities of Soria (Spain), Koroni (Greece), Cilento (Italy), and other cities in Portugal, Croatia, and Cyprus. The concept of the Mediterranean Diet encompasses all the know-how, knowledge, traditions, and agronomic, sociocultural, and culinary practices of Mediterranean countries. It also includes landscapes, natural resources, biodiversity, their sustainable and responsible management, as well as, on a broader scale, the fields of health, well-being, hospitality, and creativity (33).

Traditions and symbols are still very much alive and transmitted from generation to generation in Chefchaouen, including food practices, social customs, and celebrations. This implies that local actors breathe life into this heritage, and drive local development, and that residents can live in accordance with this cultural identity. The activities carried out by the city of Chefchaouen for development are in line with the continuity of the New Communal Charter, approved in 2009, which emphasizes the competencies of municipalities, strategic planning, consultation with civil society, and the involvement of local governments in local economic development.

In this regard, the city of Chefchaouen has raised awareness among younger generations about the importance of nutrition, the richness of their food heritage, and the need to strengthen the capacities of local terroir product cooperatives and food outlets (33). A project for a Mediterranean Diet museum is expected to be launched in the coming years, funded in partnership with the Northern Morocco Provincial Agency (38).

The beneficiaries of this project are primarily rural and peasant populations, in interaction with urban inhabitants involved in the project circuit (artisans, traders, restaurateurs, and building preservation). Urban-rural links have been strengthened in terms of recognizing each other's cultures and economic complementarity. Women have particularly benefited from training, networks, and territorial labeling. Young people and residents, in general, have seen the rebirth of their culture and identity, and visitors, both Moroccan and foreign, are also considered indirect beneficiaries. By revitalizing the region's attractiveness, the project has minimized the impact of the rural exodus (33).

This recognition also provides an opportunity for the City of Chefchaouen to share best practices with other award-winning cities. The exchange of experiences primarily concerns public events, the establishment of local product fairs as in Greece, or the creation of a City of Gastronomy, as is the case in Dijon (38).

An active Municipality in international networks

The municipality of Chefchaouen is particularly active within international city networks such as "Cities with Nature" with ICLEI Africa, the network of intermediate cities of United Cities and Local Governments (UCLG), and "Sustainable Development Goals" (SDG) Cities, in order to align the municipality's actions with the SDGs. Chefchaouen seeks to collaborate with international actors who can provide a different and complementary perspective and expertise for its territory. The city regularly works with Spanish, French, German, and American cooperation agencies to develop new projects and exchange best practices (38).

STAKEHOLDERS MAPPING AND ANALYSIS

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



A FEW INITIATIVES FOR SUSTAINABLE URBAN FOOD SYSTEMS

SOUK BELDI - MUNICIPALITY OF CHEFCHAOUEN AND AFTHA

- Weekly market dedicated to local products from the Tanger-Tétouan region
- Part of the project "Developing and promoting the Mediterranean diet" (Mediterranean diet project)

FROMAGERIE AJBANE

- Created in 1992 by the Livestock Department and the Provincial Directorate of Agriculture of Chefchaouen to structure the sector
- Sheep and goat cheeses for local markets

FAVOR AGROECOLOGY - ASSOCIATION AFTHA

- Diversity of projects in favor of agroecology: agroecological certification of farmers and restaurants, training families in agroecology, sustainable and ecological tourism, support for producers in reducing energy consumption, etc.

SUPPORTING COOPERATIVES - ASSOCIATION FOR LOCAL DEVELOPMENT (ADL)

- Established in 1997, with 10 employees in Chefchaouen
- Supports women's cooperatives in mushroom production, construction of goat farming buildings, or the processing of olive oil, honey, etc.
- Encourages cooperatives and producers to develop agritourism

RESTAURANT BELDI BAB SSOUR

- Restaurant that cooks with local ingredients and highlights Moroccan cuisine
- Offers vegetarian and gluten-free menu options

ACTIVITY OF MUSHROOM PRODUCTION - WOMEN'S COOPERATIVE

- Located in the agricultural center of Grangha, the cooperative supports women living in the Bouhachem Natural Park and the Intercontinental Mediterranean Biosphere Reserve
- Mushroom production and marketing
- Economic support from the National Initiative for Human Development (INDH)

ALLIANCE BETWEEN SMALL PRODUCERS AND CHEFS - SLOW FOOD MOROCCO

- Collaboration with the public organization Maroc Taswiq
- Aims to safeguard the food biodiversity of the national heritage and promote the work of small producers while bringing them closer to consumers

NETWORK OF LODGES AND PRODUCERS IN THE CHEFCHAOUEN REGION - ATED

- Training of farmers in hospitality and gastronomy, communication, and ecological/historical/signage heritage around tourist circuits
- Hosting of the 3rd International "Planète Terroirs" Forum

"MEDITERRANEAN DIET" PROJECT - MUNICIPALITY OF CHEFCHAOUEN

- Aims to promote Chefchaouen as a tourist destination based on the richness of its local products and the preservation of its heritage
- Examples of actions: Establishing a quality territorial label for food products, strengthening the capacities of cooperatives, providing nutrition education in schools, developing local food governance, etc.

ASSESSMENT OF THE INITIATIVE ECO-CENTER BELLOTA

AFHTA

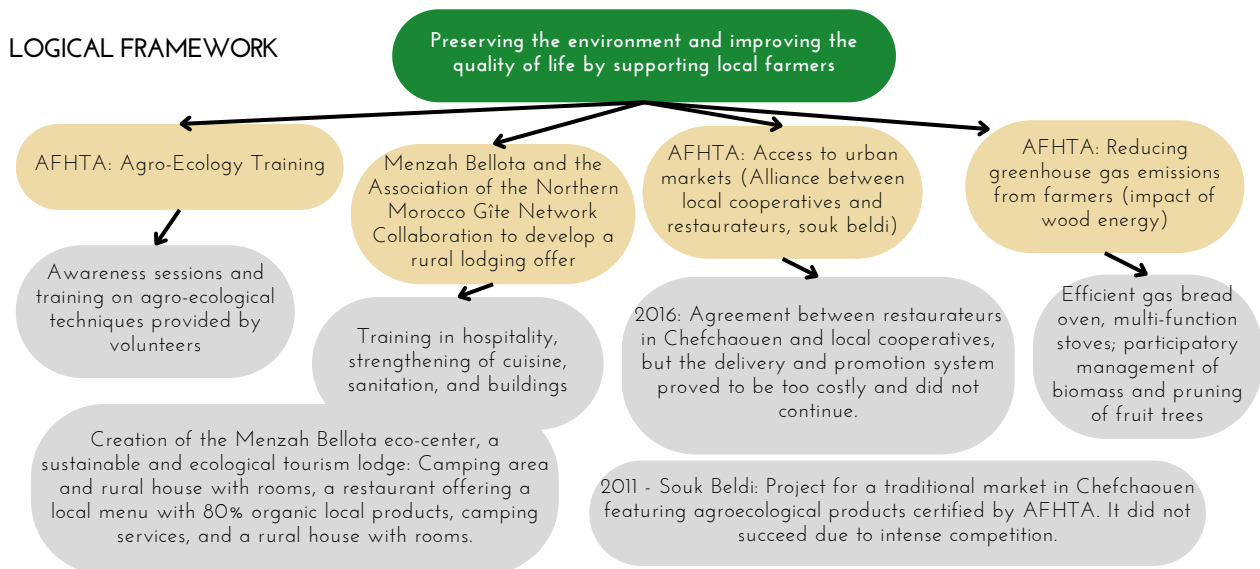
The assessment of the initiatives aims to:

- 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.

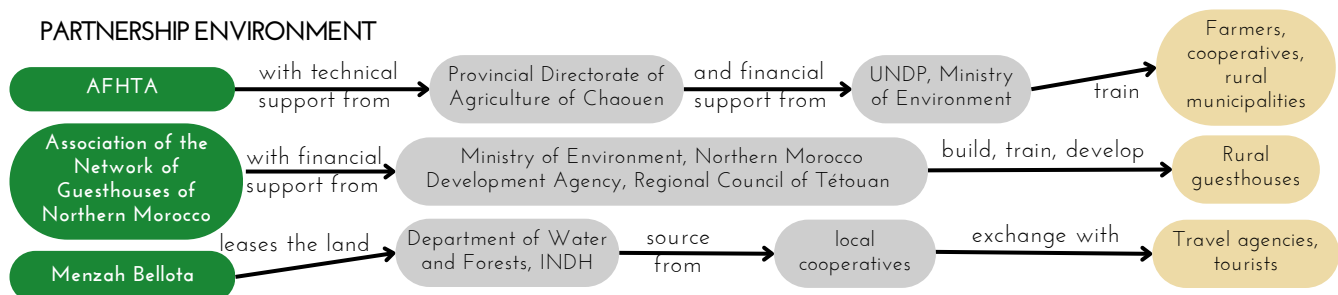
NATURE OF THE PROJECT AND TERRITORIAL SCOPE

- **Target of the project:** The various projects/structures presented here are aimed at Moroccan and foreign tourists as well as local farmers and restaurateurs.
- **Financial resources mobilized:** Equity funds, National Initiative for Human Development, Ministry of Environment, Northern Development Agency of Morocco.
- **Scope of action:** Province of Ouezzane and Province of Chefchaouen.
- **The expected level of impact:** Support local farmers by encouraging quality practices (through training) and income diversification strategies (sustainable and solidarity tourism) as well as short food supply chains (solidarity shops, restaurants, etc.).
- **Stage of the progress of the initiative:** The Bellota eco-center is growing, but the project involving committed restaurateurs has failed.

LOGICAL FRAMEWORK



PARTNERSHIP ENVIRONMENT



ECO-CENTER BELLOTA



Source: Let's Food

ECO-CENTER BELLOTA



Source: Let's Food

ECO-CENTER BELLOTA



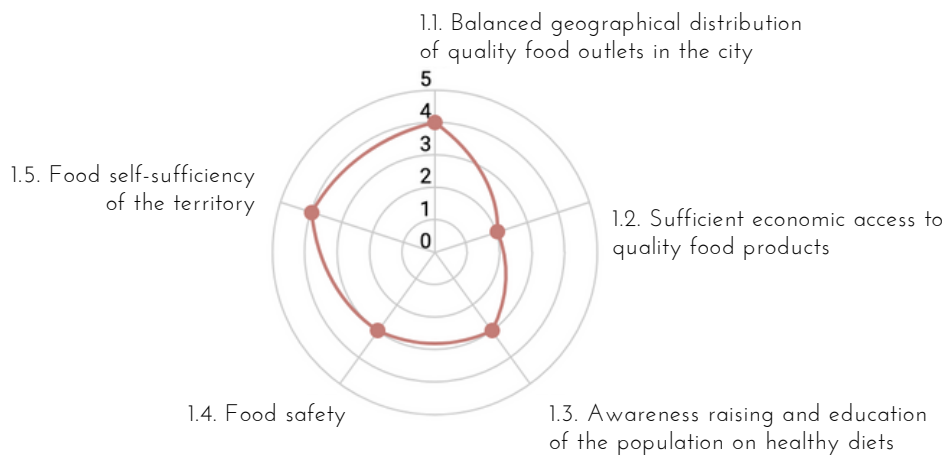
Source: Let's Food

CONTRIBUTION TO THE FOOD SYSTEM SUSTAINABILITY

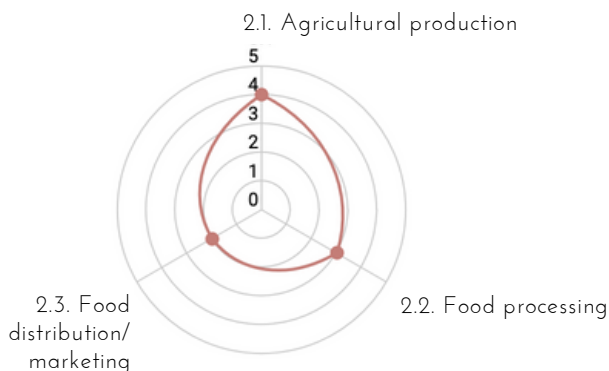
The various illustrations represent the components and sub-components of a sustainable food system as defined in the methodology proposed by Let's Food. This assessment was carried out by Let's Food, based on an interview conducted with Abdelghani Lakhdal, manager of the Menzah Bellota eco-center for solidarity and ecological tourism, coordinator of the "Association Fondation pour l'Humain, terroir et alternatives: AFHTA" and President of the association Réseau de Gîtes du Nord Maroc: Chamal Rural du tourisme et culture.

1: Low contribution of the initiative to the sustainability component ; 5: High contribution of the initiative to the component.

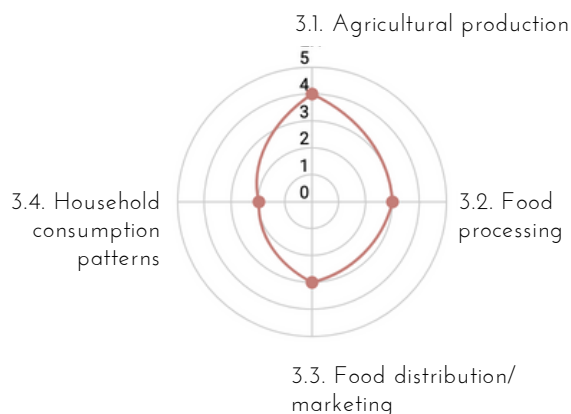
• FOOD SECURITY AND NUTRITION



• ECONOMIC SUSTAINABILITY



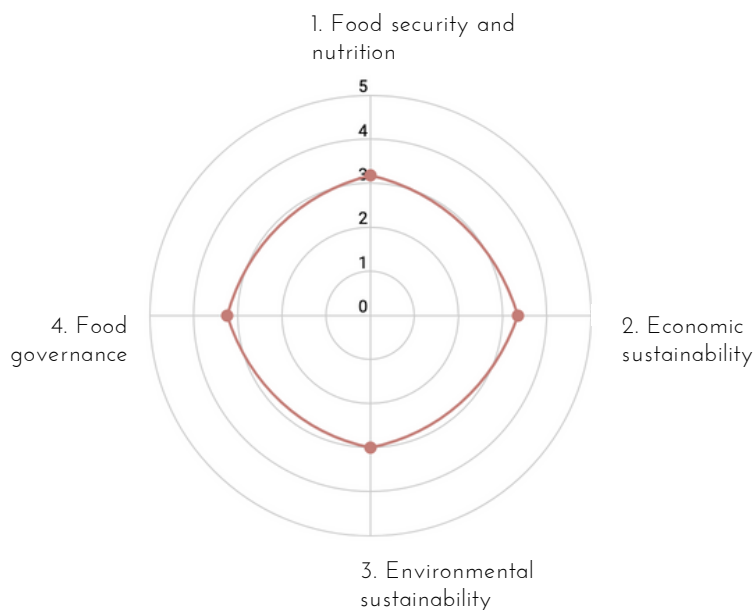
• ENVIRONMENTAL SUSTAINABILITY



• FOOD GOVERNANCE



CONTRIBUTION TO THE FOOD SYSTEM SUSTAINABILITY



Through his various roles (Eco Centre Bellota, AFHTA, and the Association of the North Morocco Rural Lodging Network), Abdelghani Lakhdal has built a network of actors and systemic initiatives that contribute to the local governance, food security, as well as the environmental and economic sustainability of the territory. This is achieved by promoting local agroecological food production and improving the income of producers through the diversification of their activities. The Eco Centre Bellota serves as a pilot project for experimenting with the purchase of food products from cooperatives for the restaurant, as well as providing training for tourist establishments. Unfortunately, these projects still heavily rely on the will of a single individual or a few volunteers, and sustainable funding is needed to achieve their ambitions for the public interest.

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

STRENGTHS

- Adapted to the needs of the territory: diversification of income for farmers, agroecological practices that are less water and wood-energy-intensive, and preservation of local products and traditional culinary culture.
- Several rural lodgings are being developed that offer local and fair-trade products.

WEAKNESSES

- Lack of funding and follow-up in financing for associations, with no funding from local authorities and unpredictable state funding.
- Limited long-term commitment from stakeholders in the restaurant industry.
- Weak coordination between the Ministry of Tourism and the Ministry of Agriculture (a convention exists, but its content is unknown).
- There is no tourism office, and communication and visibility efforts are limited.

OPPORTUNITIES

- Political will from the Municipality of Chefchaouen to develop the region as a tourist destination based on its gastronomy and rural tourism, particularly focusing on the Mediterranean diet.
- Tourists show interest in rural tourism and local products.
- Funding from Green Generation for cooperatives, rural tourism, and entrepreneurs.

THREATS

- Difficulty in finding a satisfactory logistical economic model.
- Rising diesel prices and deteriorating road conditions for rural-urban logistics and supply.
- Low purchasing power of Moroccans for rural tourism.
- Strong competition or monopolies among distributors in Chefchaouen, making it difficult to bring in new, more sustainable and fair actors.

ASSESSMENT OF THE INITIATIVE BASED ON INTERVIEWS CONDUCTED WITH

- Interview conducted with Abdelghani Lakhdal, manager of the Menzah Bellota eco-center for sustainable and solidarity tourism, coordinator of the Foundation for Human, Terroir, and Alternatives (AFHTA), and president of the Chamal Rural Tourism and Culture Network in Northern Morocco.

ASSESSMENT OF 4 INITIATIVES: RURAL TOURISM, GENDER APPROACH, FARMER TRAINING, AND YOUTH AWARENESS

ATED

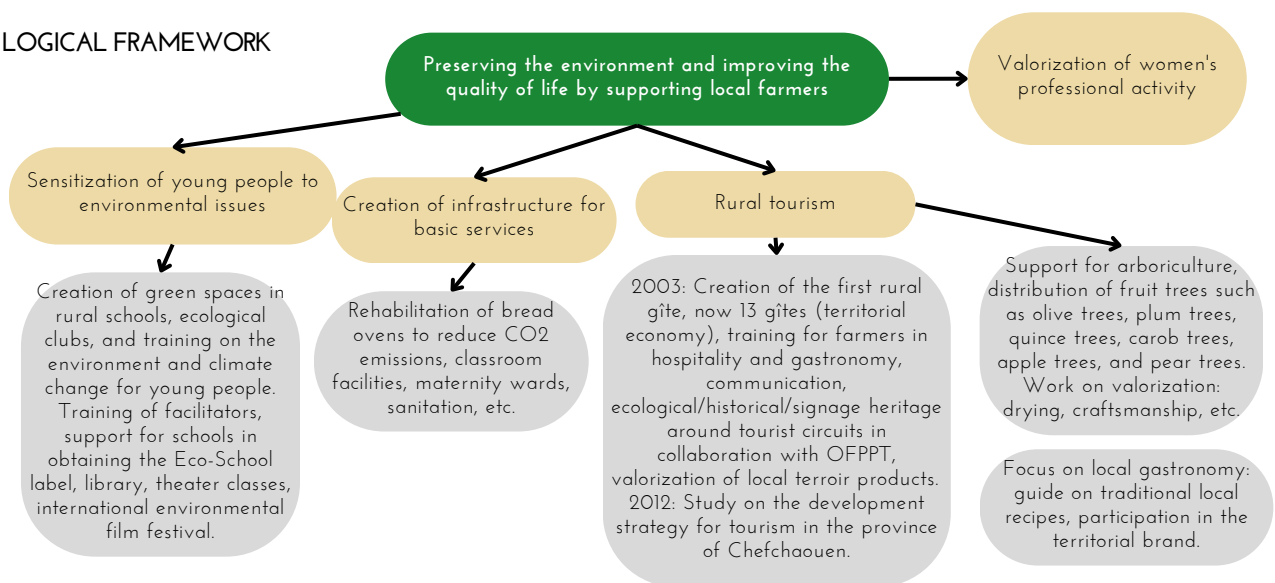
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- Assess the impact of the initiative on the priority sustainability issues of the food system;
- Determine the replicability of the initiatives and the conditions for their replicability;
- Identify success factors and areas for improvement.

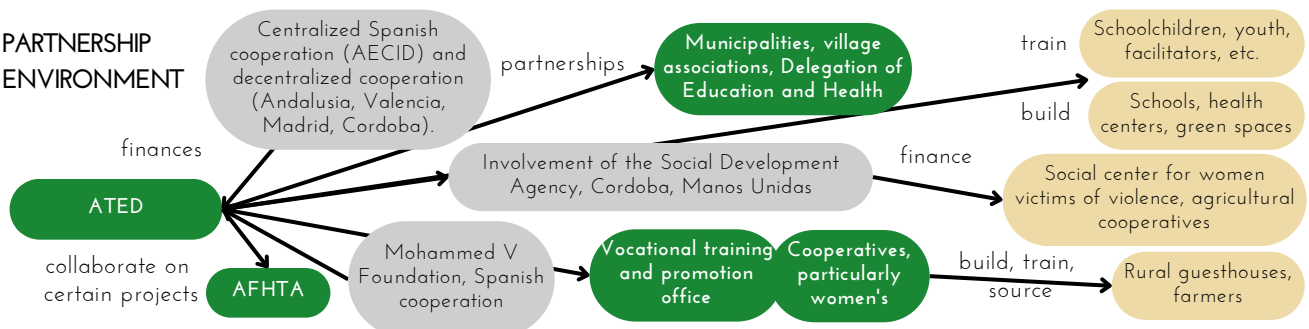
NATURE OF THE PROJECT AND TERRITORIAL SCOPE

- **Target of the project:** youth, pre-schoolers in rural areas, and farmers, with a specific focus on women.
- **Financial resources mobilized:** Spanish decentralized cooperation, Ministry of Environment, Social Development Agency, Mohammed V Foundation.
- **Scope of action:** Tangier, Tetouan, Chefchaouen.
- **The expected level of impact:** Preserve the environment, raise awareness, and provide alternatives to improve the quality of life in rural communities.
- **Stage of the progress of the initiative:** Created in 1996, stable activity, 15 employees.

LOGICAL FRAMEWORK



PARTNERSHIP ENVIRONMENT



SOCIO-CULTURAL CENTER _ ATED



Source: Let's Food

SOCIO-CULTURAL CENTER _ ATED



Source: Let's Food

SOCIO-CULTURAL CENTER _ ATED

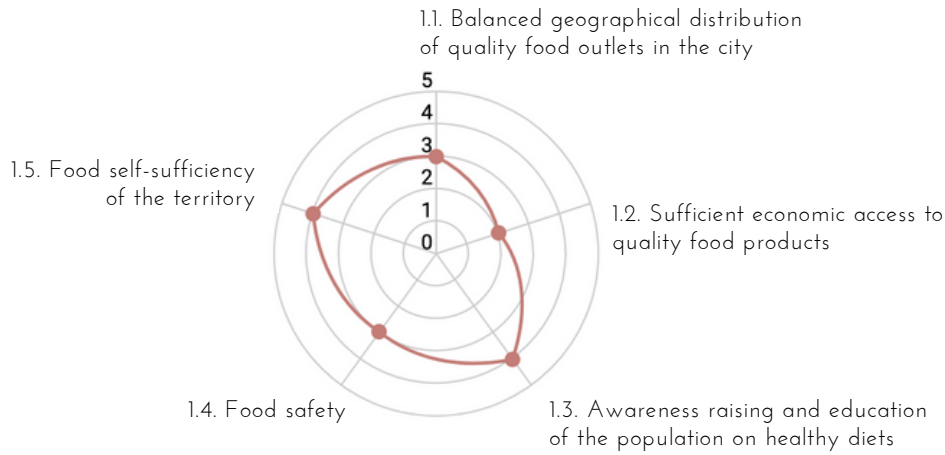


Source: Let's Food

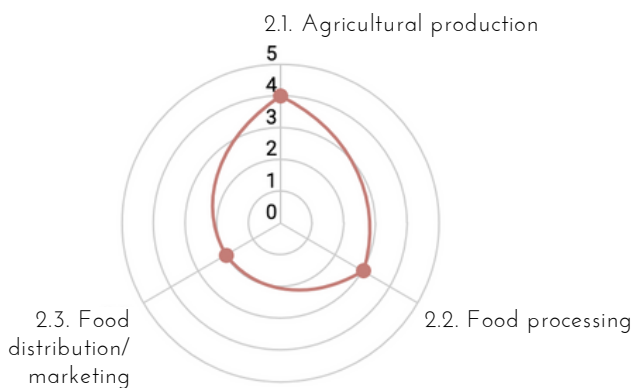
CONTRIBUTION TO THE FOOD SYSTEM SUSTAINABILITY

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 conducted with Tazi Abdelilah, President of the ATED association, life and earth sciences teacher by training. 1: Low contribution of the initiative to the sustainability component ; 5: High contribution of the initiative to the component.

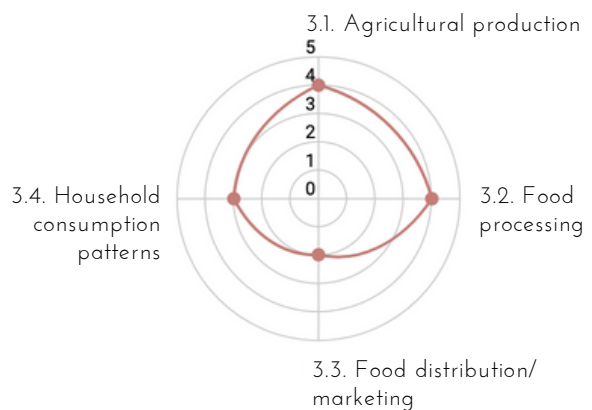
• FOOD SECURITY AND NUTRITION



• ECONOMIC SUSTAINABILITY



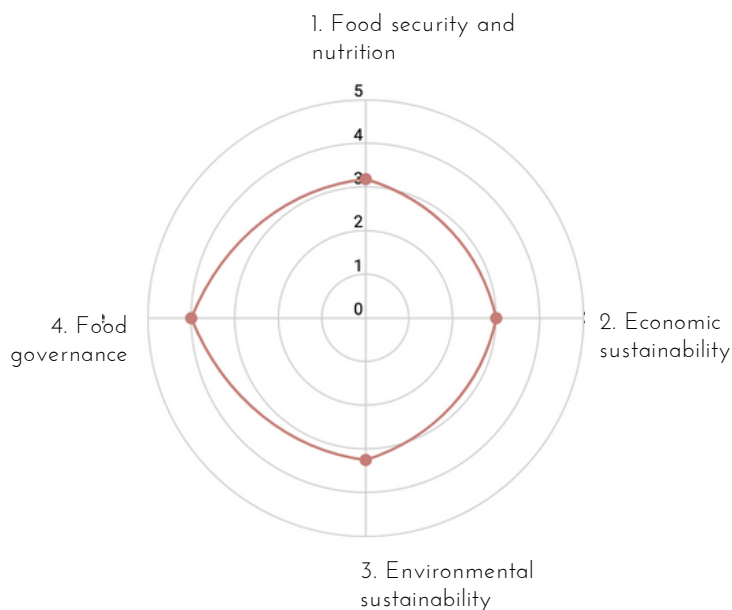
• ENVIRONMENTAL SUSTAINABILITY



• FOOD GOVERNANCE



CONTRIBUTION TO THE FOOD SYSTEM SUSTAINABILITY



The ATED association, established in 1996, plays a central role in sustainable agricultural and food development in the Chefchaouen region and beyond. It carries out numerous actions throughout the food system, including training young people on sustainable development issues and farmers on sustainable practices (environmental sustainability), supporting women and farmers in income generation (rural gîtes, cooperative support, etc.) for economic sustainability and food security of communities. It is also an actor that has established numerous partnerships, both in rural areas with cooperatives and gîtes, as well as in Chefchaouen with restaurateurs and the municipality. ATED is able to identify international funders and draw inspiration from successful examples from other places. Sustainable funding from the municipality would greatly amplify the impacts.

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

STRENGTHS

- Regular funding from international cooperation, particularly from Spain.
- In rural areas, ATED has built numerous partnerships with municipalities (facilitating access to land, premises, etc.) and village associations to ensure that the project meets local needs.
- Partnerships with the Delegation of Education and Health.
- Positive evolution of young people who have been sensitized and trained.

WEAKNESSES

- Lack of subsidies from the city, region, and provincial council, and little involvement from the Ministry of Tourism.
- Lack of impact studies which makes it difficult to measure the effects of youth sensitization or the environmental and economic impact of rural gîte development.
- ATED created a tourism information center in 2012 for tourists, but the municipality does not promote it, highlighting a lack of promotion by local authorities.

OPPORTUNITIES

- The eco-schools label and the high demand from schools to raise awareness among children about environmental issues and the impacts of climate change.
- Concrete actions that allow people to see rapid results and engage in ATED's projects.
- Training for cooperatives, particularly women, helps develop their skills and ability to manage projects.
- Promotion of local products through rural tourism.

THREATS

- Difficulty in obtaining sustainable funding for associative actors, as they are dependent on national and international budget constraints (such as Spain, etc.).
- The provincial delegation of tourism, due to limited resources, does not directly support tourism activities.
- Resistance from some producers (especially cannabis growers) to engage in rural tourism and exposure.

ASSESSMENT OF THE INITIATIVE BASED ON INTERVIEWS CONDUCTED WITH

- **Tazi Abdelilah**, President of the ATED association, professor of life and earth sciences.

CONCLUSIONS

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

STRENGTHS

- The municipality of Chefchaouen is committed both locally and internationally.
- The city benefits from its tourist appeal and a demand for quality food products, particularly from restaurants and tourist establishments.
- There are a few strong associations that carry out impactful actions and contribute to raising awareness among the population about sustainable development and quality food.
- Funding is available through decentralized cooperation, particularly from France and Spain.

WEAKNESSES

- The region suffers from drought and deforestation.
- Farmers have lost many traditional farming practices as they prioritized cannabis cultivation, which is quickly profitable.
- Newcomers to Chefchaouen, such as small producers, cooperatives, and women, face difficulty accessing markets due to increased competition and challenges related to road conditions and transportation costs.
- The civil society ecosystem is fragile due to the constant search for funding, despite its role in the public interest or even as a delegated public service.

OPPORTUNITIES

- The municipality of Chefchaouen aims to further develop a sustainable food system.
- The new state program "Green Generation" encourages the valorization of local products, provides tools for processing and promotes agritourism and entrepreneurship.
- The Provincial Agricultural Department offers agroecology training to local producers.
- Consumers in Chefchaouen are increasingly interested in consuming local and traditional products ("beldi").
- The legalization of cannabis for pharmaceutical use is expected to open up new opportunities.

THREATS

- It is challenging to redirect the employment from cannabis cultivation toward local/legitimate processing or other food-related sectors.
- The older generation of farmers faces difficulty in changing their practices to reduce water consumption and pesticide use.
- The low purchasing power of residents in the province prevents them from adequately remunerating producers, making it difficult for them to make a decent living from their profession and making it less attractive to younger generations.

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

STRENGTHS

- The municipality of Chefchaouen is committed.
- There are some strong associative actors who support sustainable territorial development and raise awareness among future generations.
- The Provincial Directorate of Agriculture supports entrepreneurs and producers in agricultural diversification, transformation, and the development of territorial economy and added value.

WEAKNESSES

- Local authorities must play a more proactive role, as elected officials are not sufficiently trained. There is a lack of long-term political vision and coherence.
- The youth are quite disinterested in politics, which does not foster engagement.
- Restaurateurs are not sufficiently committed to promoting local products.

OPPORTUNITIES

- The associative sector can carry out pilot and experimental projects, as they have the flexibility that the administration lacks. The government should then take these projects and turn them into public policies that apply to everyone.
- The tourist demand in Chefchaouen represents an opportunity for quality restaurants and tourist offerings that promote local products.

THREATS

- There is a lack of governance in water management (Forestry and Water Administration, hydraulic basins, Provincial Department of Agriculture, Ministry of Equipment). State interventions need to be coordinated and involve the shared responsibility of different actors to avoid being counterproductive.
- Some producers are hesitant to change their practices.
- Traders hold certain monopolies and do not facilitate the entry of new points of sale for local products.

CONCLUSIONS

>> CONTRIBUTION OF CHEFCHAOUEN 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.

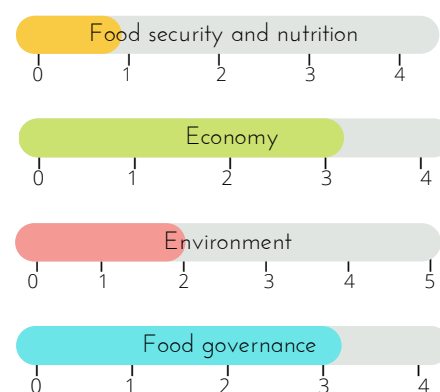


More information on the methodology used in the methodological guide "[Mettre en action les objectifs de développement durable de l'ONU par les projets alimentaires territoriaux](#)"

Contribution

9 initiatives identified in Chefchaouen:

- Adding value to local products through agri-food processing: 2
- Development of short value chains: 2
- Education on healthy and climate-friendly diets: 0
- Enhancement of local heritage: 3
- Financial support for organic or sustainable agriculture: 0
- Food insecurity and social cohesion: 0
- Food waste management and fight against food waste: 1
- Local food governance: 1
- Protection and enhancement of agricultural land: 0
- Sustainable canteens: 0
- Urban agriculture: 0



RECOMMENDATIONS & COOPERATION OPPORTUNITIES

#1

Raise public awareness about quality, healthy, and sustainable food that preserves local ecosystems (museums, festivals, tourist offices, etc.)

- **Targets:** Chefchaouen Municipality
- **Examples:** International Terra Madre Fair (Izmir, Turkey), Local Products Fair in Tirana (Albania)

#2

Develop the territorial brand "Mediterranean Diet" and various outlets for local products (markets, shops, rural accommodations, etc.) and communicate extensively to residents and tourists

- **Targets:** Chefchaouen Municipality, ATED, ADL, restaurateurs, etc.
- **Example:** "Farm to Fork" sustainable tourism program in Amman (Jordan), "Sud de France" territorial brand in Occitanie (France)

#3

Enhance training opportunities for sustainable production, transformation, and distribution of food products to create employment, particularly in rural areas

- **Targets:** Chefchaouen Municipality, DPA, ITA (Office of Vocational Training and Work Promotion), ANAPEC, Chamber of Agriculture, Terre et Humanisme.
- **Example:** Development Center for Agriculture of the Municipality of Izmir (Turkey)

#4

Establish a Provincial Food Council to facilitate partnerships and foster a collective culture

- **Targets:** Provincial Council of Chefchaouen
- **Example:** City Food System Actors Network of Gaza, Consell Alimentari Municipal de València (Spain)

#5

Support the creation of entrepreneurial and/or associative projects by launching an annual call for proposals on agricultural and food-related issues

- **Targets:** Platform for youth employment (INDH), ANAPEC, Center for Small-Scale Solidarity Enterprises.
- **Example:** Grand Lyon Métropole - annual call for projects dedicated to sustainable food (France), culinary incubator in Goussainville (France)

#6

Implement a system for the recovery and valorization of organic waste to enrich the soil

- **Targets:** Chefchaouen Municipality
- **Example:** Compost Baladi (Beirut, Lebanon), strategy for the collection and valorization of organic waste in the Montpellier metropolis (France)

RESOURCES

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