

Olive Oil and Water:

Moving towards sustainable agricultural trade between the EU and Tunisia



ISSUE BRIEF No. 1 of a series examining agricultural trade between the EU and North Africa in times of crisis.

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Introduction

In the past few years, the world has gone through a series of successive crises that have impacted food systems. The COVID-19 pandemic caused major disruptions in food supply chains due to quarantines and restrictions on food exports by some countries¹ while the pandemic-induced global recession resulted in massive job and income losses, undercutting poor people's access to food, especially in countries in the Global South. The situation has become more complex since February 2022 with the outbreak of the Russia-Ukraine crisis and the resulting turmoil in global food markets. According to FAO data, in March 2022, global food prices reached an "all time high", driven especially by price hikes of cereals (Russia and Ukraine alone account for 30% of global wheat supply), which have reached their highest levels since 1990.

However, while the COVID-19 pandemic and the Russia-Ukraine war may be amongst the most immediate triggers of the current food crisis, they are also revealing of a

deeper-rooted fragility of the global food system. These crises raise penetrating questions about the ability of the global market to guarantee food security as well as the Global South's strategy of promoting agricultural exports at the expense of domestic food production.²

This report seeks to interrogate these questions through an analysis of agri-food trade flows between the EU and Tunisia, focusing on the dynamics of trade in times of multiple and overlapping crises including: 1) Disruptions to mobility and supply chains linked to the COVID-19 pandemic; 2) The impacts of climate change on agricultural production; and 3) The geopolitical crisis associated with the Russia-Ukraine war. This analysis allows us to evaluate the effects of agricultural trade and related policy on the Sustainable Development Goals (SDGs), in particular those pertaining to eradicating hunger, improving food security and nutrition and promoting sustainable agriculture.



Photo 1: Olive farming in North Africa. Credit: Saker El Nour

The Tunisian food and agricultural system at a glance

The following section provides an overview of the food and agricultural system in Tunisia including dimensions related to agricultural land use, value production, water resources, agricultural employment, and food self-sufficiency.

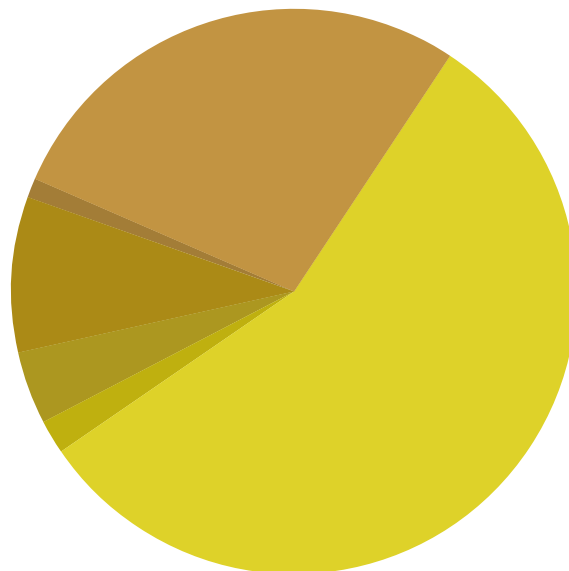
Agricultural land use

Agricultural land in Tunisia covers around 10 million hectares, which represents about 63% of the total area of the country. This is divided into 5 million hectares of arable land, 4 million hectares of natural pasture for livestock, and 1 million hectares of forests and shrubs. The area under cultivation is estimated to be about 4.3 million hectares, varying from year to year depending on climatic conditions. The irrigated area is only 437,000 hectares or 8.9% of arable land and 10.2% of the agricultural area.

The distribution of cultivated land among various crops has changed significantly compared to the beginning of the 2000s, with the proportion of the area given over to cereal production decreasing from 37% to 28%, while the area dedicated to tree cultivation and management (arboriculture) increased from 49% to 56%. Legumes declined slightly in importance and the area devoted to animal feed increased, although this did not exceed 9% of the total cultivated area. Finally, vegetable production did not change significantly, stabilizing at 4% of the total cultivated area.

Distribution of crop areas 2016–2021 in %

Cereals	28%
Other crops	1%
Fodder crops	9%
Vegetable crops	4%
Legume	2%
Arboriculture	56%



Value of agricultural production

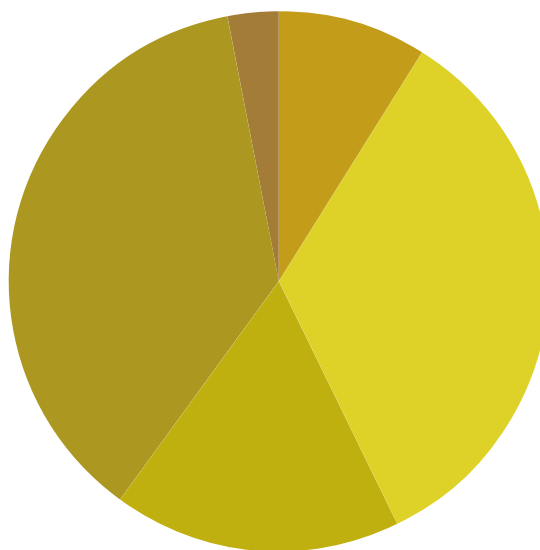
Agriculture contributes about 10% of Tunisia's GDP compared to 14% in 1990. The structure of agricultural production is such that livestock production represents 37% of the value of agricultural production against 34% for fruit trees, 17% for vegetables and 9% for grains in the 2016-2022 period.

For animal production, meat production averages about 300,000 tons per year and consists mainly of poultry (63%) and beef (15%). The livestock sector provides about 1.2 million liters of milk annually. However, this sector has begun to decline in recent years as a result of the

noticeable rise in the price of animal feed and the cost of production in general. The fruit tree sector is mainly based on olives (an average of 850,000 tons per year), citrus (about 400,000 tons per year) and dates (about 300,000 tons per year). Finally, cereals form the basis of Tunisia's diet and have historically been central to the Tunisian economy and agriculture. Durum wheat (60%) and barley (30%) dominate production. In recent years, grain production has declined due to climate variability and the country's withdrawal of subsidies to grain producers.

Structure of the value of agricultural production 2016–2021 (in %)

Cereals	9%
Fruit arboriculture	34%
Vegetables	17%
Animal productions	37%
Other productions	3%



Agricultural employment

The contribution of the agricultural sector to employment declined from 20% in 2000 to 14% in 2022, with the number of workers in the agricultural sector standing at 495,000 in 2022.³ This decline is linked to the diversification of the economy and the emergence of other

activities, but is also due to the shrinking working capacity of agriculture. The latest statistics indicate that the family workforce represents 90% of the number of workers employed in agriculture, of which 37% is female.

Food self-sufficiency

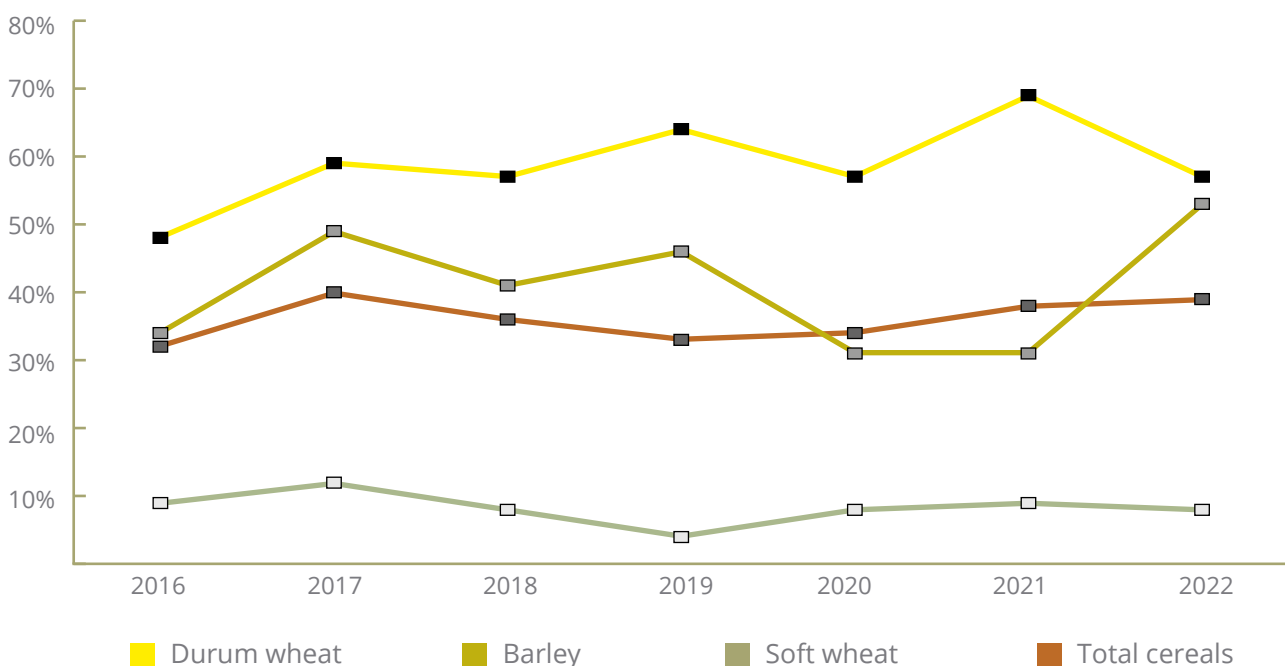
National agricultural production covers about 70% of Tunisians' food needs, this percentage varying depending on the product. Self-sufficiency exceeds 100% for vegetables and fruits, which has allowed some producers to export surpluses. However, it should be noted that the calculation of this percentage depends on the actual quantities consumed, which have begun to decline in recent years due to rising prices and the trend toward increased exports.

Since the mid-1990s, the milk production sector has developed rapidly, with a self-sufficiency rate of over 100

percent, which the official authorities have considered a great success. However, this fragile self-sufficiency, which depends mainly on imported inputs (cows, fodder, etc.), has declined in recent years due to rising production costs resulting from higher import prices and the devaluation of the dinar.

Regarding cereals, Tunisia has become increasingly reliant on imports. During the 2016-2022 period, domestic production of cereals covered only 36% of food needs, with the self-sufficiency rate stabilizing at 58% for durum wheat, 8% for soft wheat and 40% for barley.⁴

Cereal self-sufficiency rate



Water resources

Tunisia's renewable water resources are limited and unevenly distributed. The water potential is estimated at 4.9 billion cubic meters in 2020, of which 4.7 billion can be mobilized and 4.6 billion is actually mobilized. This potential comes from surface water and groundwater. The surface water potential is estimated at 2.7 billion cubic meters, of which 2.55 billion can be mobilized, 85% from flood flows and 15% from main flows. Groundwater potential is 2.174 billion cubic meters, of which 0.745

billion cubic meters comes from groundwater and 1.429 billion from deep aquifers. With a water availability of 460 cubic meters per year per person, the country is below the threshold of absolute water scarcity (defined as 500 cubic meters per year per person). Agriculture is the main user of water, consuming about 3,772 million cubic meters (80%), followed by drinking water at 644 million cubic meters (14%), industry at 138 million cubic meters (3%) and tourism at 46 cubic meters (1%).⁵

Agriculture, food and sustainable development goals

The following section discusses the relationship between Tunisia’s agriculture and food system and the Sustainable Development Goals (SDGs). The following table gives an overview of some of the key SDGs and indicators analysed:

TABLE 1

SDGs	Indicators
<p>1.2 By 2030, reduce at least by half the proportion of men, women and children of all ages living in poverty in all its dimensions according to national definitions</p>	<p>1.2.2 Proportion of men, women and children of all ages living in poverty in all its dimensions according to national definitions</p>
<p>1.b Create sound policy frameworks at the national, regional and international levels, based on pro-poor and gender-sensitive development strategies, to support accelerated investment in poverty eradication actions</p>	<p>1.b.1 Pro-poor public social spending</p>
<p>2.4 By 2030, ensure sustainable food production systems and implement resilient agricultural practices that increase productivity and production, that help maintain ecosystems, that strengthen capacity for adaptation to climate change, extreme weather, drought, flooding and other disasters and that progressively improve land and soil quality</p>	<p>2.4.1 Proportion of agricultural area under productive and sustainable agriculture</p>
<p>2.b Correct and prevent trade restrictions and distortions in world agricultural markets, including through the parallel elimination of all forms of agricultural export subsidies and all export measures with equivalent effect, in accordance with the mandate of the Doha Development Round</p>	<p>2.b.1 Agricultural export subsidies</p>
<p>6.4 By 2030, substantially increase water-use efficiency across all sectors and ensure sustainable withdrawals and supply of freshwater to address water scarcity and substantially reduce the number of people suffering from water scarcity</p>	<p>6.4.2 Level of water stress: freshwater withdrawal as a proportion of available freshwater resources</p>
<p>10.a Implement the principle of special and differential treatment for developing countries, in particular least developed countries, in accordance with World Trade Organization agreements</p>	<p>10.a.1 Proportion of tariff lines applied to imports from least developed countries and developing countries with zero-tariff</p>

Food and nutrition security

According to the Global Food Security Index, Tunisia is ranked 55th out of 113 countries and 15th out of 57 middle-income countries in 2021 in terms of overall food and nutrition security.⁶ This is confirmed by official data and studies that indicate an improvement in the availability levels of most food products.⁷ However, these datasets hide the fragility of the country's food and nutrition security which is at risk due to a number of factors.

First, national agricultural production, in addition to the abandonment of most support and development programs by the state, is gradually threatened by the deterioration of fertility and soil erosion and the decrease in water resources resulting from the exploitation of these resources.⁸ The policy of subsidizing exports to the detriment of basic necessities has also accentuated dependence on imports, particularly of cereals, in a context marked by instability, unbridled speculation due to the domination of monopolies and their growing link with financial markets.⁹

Second, despite falling, the percentage of food expenditure in the total expenditure of the Tunisian family remains high, representing on average 30% of (annual)

family expenditure and nearly 40% for the lowest income groups.¹⁰ Thus, the cost of food is critical for low-income families. For these families, inflation makes it more difficult to access an adequate and balanced diet. Under the effect of rising world prices and the devaluation of the dinar, food prices and consumption rates increased by 49% between 2016 and 2022.

Third, the Tunisian diet (a Mediterranean diet) is traditionally based on the consumption of cereals, fresh or dried fruits and vegetables, olive oil, and some animal protein. In the context of globalization, this system has undergone changes in recent decades, notably the introduction of more animal products and vegetable oils, especially among urban dwellers. These changes have been accompanied by a deterioration in the health status of the population with the spread of diseases related to an unbalanced diet. According to the World Health Organization (WHO) data, non-communicable diseases account for 82% of deaths in Tunisia. These data reveal that among Tunisians aged over 15 years, 19% have diabetes, 44% have high cholesterol and 36% have high blood pressure, while about 46% of Tunisians are overweight and 10% obese (WHO 2017).

The situation of small farmers

Tunisian agriculture is marked by the significant proportion of small and medium-sized farms and the unequal distribution of land. Quantitative data analysis on small and medium-sized farms is based on the 2004-2005 Structural Survey of Agricultural Farms, which is the latest survey conducted in Tunisia. This survey, which is conducted every 10 years, was not carried out in 2015 and has been replaced by a more comprehensive general agricultural census, the results of which have not yet been published. In 2017, the number of farmers was estimated at 550,000 compared to 326,000 in the early 1960s and 516,000 in 2005. This increase has been coupled with a significant reduction in the average utilized agricultural area from 16 hectares to less than 10 hectares in the current period.

Of all farms, 54% are smaller than 5 hectares, 75% are smaller than 10 hectares, and those larger than 50 hectares represent only 3% of all farms. The data also show an unequal distribution of land: 3% of large farmers own 34% of the agricultural land, while 75% of small farmers share about 25% of the land. Due to their low-income

levels, small farmers have limited opportunities to engage in extra off-farm activities.

Small farmers have limited access to finance, which makes them more vulnerable. Banks are reluctant to extend finance to small farmers, who often cannot provide collateral and have difficulties navigating complex banking procedures. In addition, as part of the structural reform program, the government has withdrawn its support for bank loans to small and medium-sized farmers. Likewise, microfinance institutions charge unfair interest rates that farmers cannot afford.

The government's withdrawal from support, extension and technical assistance programs and their transfer to the private sector has deprived small farmers of essential services, especially given their inability to afford costly private agricultural advisors and service providers. This is compounded by the weakness of professional associations and their inability to take on the role previously played by the state. For instance, agricultural cooperatives have a membership of only 27,000 farmers, representing less than 7 percent of smallholders.

Small farmers complain about the lack of an independent union structure that protects their interests and addresses their specific needs. The Farmers' Union, which has existed since 1950, has always lacked independence from political power and embodies the interests of large landowners

Gender equality

According to the 2017 estimate, the total number of female farmers is 44,000, compared to 438,000 male farmers. This means that women represent 8% of the total number of farmers. Women farmers own less than 5% of agricultural land (FAO, 2021) and conditions for women tend to be more difficult on small farms.

Women make up 70% of the labor force on small farms. Their activities are principally geared towards livestock and poultry rearing, food preparation, and craft activities. They generally have a very heavy workload, as they must combine physically demanding farm work with responsibilities related to education, child care, and household chores. While small farms account for nearly 80 percent of agricultural production, only 6.7 percent are run by women, who

Rural poverty

The 2021 National Survey of Household Expenditures, Consumption, and Living Standards¹¹ indicates that a person is considered poor if his or her annual consumption expenditures do not exceed 2,536 dinars, or about \$800 per year or \$2.2 per day. This puts the country's poverty rate at 16.6% in 2021, compared to 15.2% in 2015, 20.5% in 2010 and 23.1% in 2000.

The regional results show an increase in poverty in most regions between 2015 and 2021, with the exception of the regions of Greater Tunis and the North West. The regions that depend mainly on agricultural activity remain the poorest, with an increase in poverty of 22.5% in the northwest, 37% in the center-west, 23.2% in the southeast and 18.1% in the southwest.

The data also show a slight decrease in the rural poverty rate from 26% in 2015 to 24.8% in 2021. However, rural areas remain the poorest compared to urban areas (12.7% in 2021). Furthermore, considering internal

and private investment companies. The National Farmers' Union, established in 2012, is not engaged in the defense of small farmers, but rather represents the category of "new agricultural investors" emerging from trade and liberal professions.

own only 5.6 percent of the land, as women's ownership of land is severely limited by inheritance laws and traditions which benefit men.

Moreover, the wages of women working in agriculture are generally lower than those of men, and only 33 percent of women working in the agricultural sector have social security coverage. Due to the informal nature of their work, only a small percentage of rural women, estimated at 10 percent, are able to access free health care services. In addition, female farmers and those living in rural areas have little access to training and extension programs. Although they are active in the agricultural sector, they have little representation in professional and union structures.

migration from rural to urban areas, a reduction in the poverty rate in rural areas does not necessarily mean a reduction in poverty and an improvement in living conditions in rural areas, but simply a "displacement" of rural poverty to urban areas as the rural poor migrate in search of employment and secure income sources.

When considering social and occupational groups, farmers and agricultural workers are the poorest with poverty rates of 22.8% and 31.9%, respectively. Although they represent only 6% of the total population in 2021, farmers account for more than 9% of the poor. Similarly, agricultural workers represent 2.4% of the population and about 5% of the poor. In general, disparities in income distribution between regions and between social groups remain a major feature, and rural populations and farmers continue to be the most affected by poverty, with their situation seemingly worsening.

Adapting to climate change

Tunisia and Northern Africa are, in general, among the regions most vulnerable to the negative impacts of climate change. According to projections by the National Institute of Meteorology,¹² temperatures could increase by 1 to 1.8 degrees Celsius by 2050 and by 2 to 3 degrees Celsius by the end of the century, and rainfall is expected to decrease by 5 to 10 percent in 2050 and by 5 to 20 percent in 2100. The country is also expected to experience a reduction in the number of consecutive days of precipitation, which will increase the frequency and severity of droughts, particularly in the southern regions of the country. The forecast also indicates a sharp decrease in water resources, ranging from 25% to 36% by 2050 and 30% to 60% by 2100, depending on the climate scenarios adopted, compared to the reference period 1981-2010.

Most research studies concur that agriculture is the sector most sensitive to the negative effects of climate change.¹³ Decreased precipitation and an increase in the number of successive dry days will lead to a decrease in the yield and efficiency of the main agricultural crops, as well as a decrease in the area of arable land along with a loss of soil fertility and humidity. In addition, the urgent need to meet water needs will increase pressure on aquifers, with the associated risks of overexploitation.

According to a study by the Ministry of Agriculture, cereal production is expected to decrease by about 40%, while olive oil production will decrease by between 23% and 70% depending on the climate scenarios adopted and compared to the reference period 1981-2010.¹⁴ Needless to say, the reliability of these figures depends on the extent to which these assumptions are realistic. However, it can be stated that the effects of climate change on

agricultural production will generally be negative. These impacts, in light of the continued implementation of the same agricultural policies, would contribute to a growing food dependency and reliance on world markets to meet citizens' food needs.

The reality is that for already more than a decade, climate change and its negative impact on agricultural activity has been felt. Some farmers have developed techniques and practices to mitigate the effects of these changes, such as the use of more climate-resistant seeds and seedlings, modification of agricultural calendars, integration of livestock into farming, and the use of additional irrigation to resist drought. However, these mechanisms remain limited in effectiveness and scope, and farmers, who are predominantly small or medium in size, lack the financial means and technical knowledge to mitigate the negative effects of climate change.

At the official level, despite Tunisia's international commitments to addressing climate change, including the Paris Agreement and the Kyoto Protocol, the recognition of the right to water in the 2014 Constitution, the setting up of a constitutional body – the Commission for Future Generations and Sustainable Development - that deals with climate, as well as several separate legal texts dealing with the environment, the issue of climate change has not been at the center of national policies or at the top of the agenda over the past decade, and Tunisian policymakers have not worked on a long-term strategy to reduce the impacts of climate change or develop ways to adapt to them.

Agricultural trade between Tunisia and the EU: Key trends and policies

The following section examines the major trends and policies that have shaped agricultural trade between Tunisia and the EU. It traces the history of major trade agreements that continue to structure Tunisia's system of agricultural trade to this day, including the 1994 WTO's Agreement on Agriculture and the 1995 Association Agreement signed between Tunisia and the EU, before moving on to explore more recent (2016 – 2022) dynamics. The section ends by looking at the public policy responses by the Tunisian state to the impacts of the COVID-19 pandemic on agricultural trade and food security and nutrition.

a) Earlier trade policy

In the early 1980s, Tunisia experienced a serious economic and social crisis, due in particular to falling growth rates, rising unemployment, a worsening external budget deficit and increasing external debt. Faced with this crisis, and under pressure from international financial institutions (International Monetary Fund and World Bank), the government in power embarked on a number of reforms as part of what was called the "structural adjustment program." For the agricultural sector, "structural adjustment" focused on reshaping agricultural policies to allow for a greater role to be played by the (world) market. This resulted in the elimination of subsidies on various production inputs, the liberalization of prices for most agricultural products, government withdrawal from the direct management of a number of enterprises, and the discontinuation of many support projects for small and medium-sized farmers. The Structural Adjustment Program also entailed the gradual liberalization of foreign trade in agricultural products, a process that was deepened by the signing of the Marrakesh Agreement in 1994 and the Association Agreement with the European Union in 1995.

World Trade Organization Agreement on Agriculture

In April 1994, within the context of neoliberal globalization, the last round (Uruguay Round) of GATT negotiations ended with the signing of the Marrakech Agreement and the creation of the World Trade Organization (WTO). This agreement marks the end of what was called the "agricultural exception". Agriculture was integrated into the negotiations on the liberalization of world trade and agricultural and food products became "goods" like any other, subject to all the "general rules of competition". Under this Agreement, each WTO member country undertakes measures to improve access of foreign agricultural products

into its markets, to reform trade distorting domestic support to agriculture, and restricts the use of agricultural export subsidies.¹⁵ For Tunisia, commitments concerned only two aspects due to its developing country status: domestic support (principally regarding agricultural input subsidies) and market access (reduction of import tariffs), export subsidies being limited and covering only very small amounts.

The idea behind trade liberalization is to let the world market function freely according to price signals (without any government intervention) in order to allocate resources to their most 'efficient' uses. However, we must not forget that agriculture is characterized by significant production gaps between the North and the South. Trade liberalization and competition on world markets (controlled by large global corporations) will only widen these gaps and marginalize farmers in the South further. In this vein, the WTO Agreement on Agriculture, it can be contended, legally codified many of the protectionist measures of the North, while countries of the South are deprived of many possibilities to protect their farmers.¹⁶

Association Agreement with the European Union

In 1995, the European Union launched the "Barcelona Process" to create a Euro-Mediterranean free trade area by 2010. Despite its stated objectives (cooperation, peace, security, shared prosperity, etc.), it can be argued that this process was an effort by the EU to preserve the Mediterranean region as a vital area for the flow of its goods and corporate interests.

On 17 July, 1995, Tunisia became the first Mediterranean country to sign an "Association Agreement" with the European Union. This agreement, which came into force

on March 10, 1998, provides for the full liberalization of trade in industrial products between the two parties by 2008 and the gradual liberalization of trade in agricultural products and fisheries. Protocol I granted a series of tariff privileges to Tunisian products exported to the EU, but within the framework of specific quantities (tariff quotas) and during specific periods of the year. In 2001, the agreement was amended by an additional protocol that approved the total elimination of customs duties on certain European products exported to Tunisia. The list includes vegetable oils (100,000 tons), cereals (500,000 tons), and potato seeds (16,500 tons), which the EU can market in Tunisia duty-free throughout the year, as well as 8,000 tons of meat and 9,700 tons of milk at very low tariff levels.

In general, if we look at the agricultural content of the Agreement, the approach is quite clear. The privileges granted to Tunisian products, in contrast to the extensive provisions granted to European products, were very limited when the products involved were sensitive and could compete with European products. The EU has thus granted Tunisia broad market access and duty free privileges for exports that do not threaten European products (dates and prickly pear). However, the customs regime, and especially the non-tariff system, appears to be more protectionist when it comes to products likely to compete with European products. For these products, the protectionist arsenal often relies on challenging non-tariff barriers: high entry rates, monthly quotas, restrictive deadlines, technical standards, etc.

TABLE 2

Ratio of tariff quotas achievement for some agricultural exports to the European Union (0% Customs Duties – 2012–2018)

	Tariff quota (ton)	Rate of exported quantity (ton)	Achievement ratio
Olive oil	56700	51185	90%
Potatoes	18816	609	3%
Almonds	1120	211	19%
Fresh orange	39353	16772	43%
Fresh apricot	2000	452	20%
Tomato paste	4000	477	12%
Wine (hl)	235200	14566	8%

b) Agricultural trade policy from 2015 onwards.

Proposal for a Deep and Comprehensive Free Trade Agreement (DCFTA) between the EU and Tunisia

In 2015, Tunisia began negotiations on a new free trade agreement with the EU as part of a process towards a series of 'Deep and Comprehensive Free Trade Agreements (DCFTAs)' that the EU sought to sign with a number of Southern Mediterranean countries, building on the earlier Association Agreements. The DCFTA's are part of what can be viewed as a set of 'new generation'

bilateral or regional trade agreements that the EU is pursuing which seek to further remove barriers to trade, often with clauses that include protection of investors' rights and other legal guarantees that favour foreign direct investment. Early drafts of the Tunisia-EU DCFTA for example include not only a key chapter on trade in agricultural and fishery products, but also chapters on sanitary and phytosanitary rules, intellectual property rights, and investor-state dispute settlement mechanisms, amongst others.

The EU-Tunisia DCFTA has been criticized by those concerned by what it could mean for labour rights (exploitation of low-wage Tunisian workers) and for Tunisian small and medium enterprises (potential disappearance in the face of increased competition from the EU). The negotiation process has also been criticized for a lack of outreach to key groups likely to be affected by the agreement, including small and medium producers, entrepreneurs and traders, as well as consumers and users of public services. More broadly, the DCFTA has been attacked by those who see it as setting Tunisia on a pathway of 'deep and comprehensive dependency' on the EU market and interests, at the expense of promoting more regional integration in the Maghreb.¹⁷

Under pressure from trade unions, left-wing political parties and civil society, negotiations on the DCFTA are suspended for the moment. The current government has not yet pronounced on the agreement, but it seems that the Joint Statement issued on the 11th of June 2023 between President K.S and the European delegation (chaired by G.

Meloni) in which both sides agree to work together on a 'comprehensive partnership package' is only a resumption of the DCFTA under another name.¹⁸

Trade balance for the years 2016 to 2022

Over the period 2016-2022, the food trade balance recorded an average annual deficit of about 1,432 million dinars, and a rate of coverage of imports by exports of about 75%. The data show a change in the trade deficit and coverage rate, ranging from a maximum in 2018 (91%) to a minimum in 2022 (67%). These changes reflect the instability of agricultural production related to weather conditions as well as the impact of the pandemic and the Russia-Ukraine war. However, these factors are only of a secondary nature, given that over the long term, and with the exception of a few very rare years, the food trade balance has always recorded a deficit. This deficit is structural in nature and is linked to the agricultural and food policies followed and the ways in which Tunisian farmers have been integrated into world markets.

TABLE 3

Evolution of food trade balance, 2016–2022 (Million Dinars)

Year	Exports	Imports	Coverage ratio (%)	Trade Balance
2016	2736.4	3812.1	71,8	-1075,7
2017	3299.6	4654.2	70,9	-1354,6
2018	4885.8	5361.9	91,1	-476,1
2019	4251.9	5650.1	75,2	-1398,2
2020	4850.6	5710.0	84,9	-859,4
2021	4569.6	6511.7	70,1	-1941,8
2022	6033.8	8954.0	67,4	-2920,2
Annual rate	4375.4	5807.7	75,3	-1432,3

Source: Data from the Ministry of Agriculture, Water Resources and Fisheries

Development of major exports

Compared to previous periods, the structure of agricultural and food exports did not change significantly over the 2016-2022 period. Three products (olive oil, dates, and

seafood) accounted for about 70 percent of total exports over the entire period. As for trade with the EU, the data available relate only to the quantities exported for the most important products as shown in table 5.

TABLE 4

Evolution of main exports of agricultural and food products, 2016–2022 (Million Dinars)

	2016	2017	2018	2019	2020	2021	2022	Percentage in exports (2016-2022 average)
Olive oil	1098.8	1009.4	2125	1386.9	2229.7	1710.9	2501.4	40%
Dates	486.4	557.6	744.1	780	732.4	716.6	759.6	16%
Sea products	339.8	357.3	463.7	469.4	405.7	621.7	739.6	11%
Citrus	24.6	21.1	22.6	30.3	17.4	26.3	22	1%
Tomatoes	54.2	58.8	78.4	104.6	129.4	144.6	176	2%
Total exports	2736.4	3299.6	4885.8	4251.9	4850.6	4569.6	6033.8	

Source: Data from the Ministry of Agriculture, Water Resources and Fisheries

TABLE 5

Evolution of exports of some agricultural and food products to the European Union (thousand tons)

	2016	2017	2018	2019	2020	2021	2022
Olive oil	75	64,14	147,6	111,4	231,29	133,1	
Dates	43,8	42,4	48,2	47,9	54,1	53,3	
Citrus	18,0	17,4	12,9	15,7	8,0	11,8	
Potatoes	1,016	0,88	0,83	1,2	1,05	0,18	
Tomatoes	10,17	10,11	14,49	16,26	18,6	20,83	

In general, Tunisia's agricultural and food exports have not been spared the impact of the COVID-19 crisis. Due to the disruption of international trade caused by the crisis, exports of Tunisian agricultural and food products declined during March and April 2020 compared to the beginning of the year.

This decline was accentuated in April 2020, when exports fell by 10.3%, amounting to 50.4 million dinars, compared to the same period in 2019. Looking at the whole year, Tunisia's agricultural exports reached 4,850 million dinars (in current prices) in 2020, an increase of 14% compared to 2019, but they did not reach the level recorded in 2018 (4,885 million dinars). The effects of the crisis vary depending on the products exported.

The pandemic has only been one factor however affecting Tunisian agri-food exports to the EU. Of longer-term consequence has been the Association Agreement between the EU and Tunisia. Contrary to expectations, since the conclusion of the Association Agreement, agricultural exports from Tunisia to the EU have not experienced

the expected growth as the EU has maintained, or even increased, mechanisms to protect its markets and its producers. In addition to high entry prices and unfair technical and sanitary standards, the advantages granted to Tunisian exports have always been linked to limited customs quotas and/or to deadlines that are partially or totally incompatible with production periods, making them illusory advantages.

For example, between 2012 and 2018, exports under customs quotas (i.e. privileged access to the EU market) represented only about 28% of Tunisia's total agricultural and food exports to the EU. If olive oil is excluded, this percentage falls to 2%. In general, excluding olive oil, Tunisian exports of the main agricultural products benefiting from advantages have been lower than the possibilities theoretically available and the levels of implementation of customs quotas, by product, have varied from 0% to less than 50%.¹⁹ This is explained by the fact that the advantages are allowed at times that do not match with production periods, making these concessions fictitious.

TABLE 6

Production periods and tariff benefit periods for selected products

Product	Production Period	Duty-free period
Tomatoes	June - July - August September-October-November	November 15 - April 30
Potatoes	Mid-March - Mid-May	January 1-March 31st
Onions	October - April	February 15th-May 15th
Table grapes	June - December	November 15th-April 30th
Watermelon	June-July-August - September	November 1-May 31st
Melon	June-July-August - September	April 1st-June 15th

Trends in the main imports

Agricultural and food imports have not changed structurally in recent years and have always been dominated by three items - cereals, vegetable oils and sugar - which

accounted for almost 70% of the value of food imports over the 2016-2022 period. During the same period, the value of imports of these substances recorded an annual growth rate of about 4% for sugar, 17% for cereals and 20% for vegetable oils.

TABLE 7

Evolution of the main food imports 2016–2022 (Million Dinars)

	2016	2017	2018	2019	2020	2021	2022	Percentage of imports (2016-2022 average)
Cereals	1754.2	1819.2	2150.7	2399.6	2831.2	3413.4	4552.3	47%
Vegetable oils	452.0	632.8	480.3	532.5	493	628.8	1397.9	12%
Sugar	402.9	682.5	611.4	472.6	375.6	221.8	502.3	8%
Total imports	3812.1	4654.2	5361.9	5650.1	5710.0	6511.7	8954.7	

Over the period 2016-2022, the value of food imports increased by 15.3 percent per year, which contributed to the trade deficit. Between 2019 and 2020, imports increased only slightly, indicating that the COVID crisis did not have a major impact. In 2022, the value of imports

increased by almost 37 percent compared to 2019, mainly due to the impact of the Ukraine-Russia crisis. The change in the value of imports over the 2016-2022 period is generally attributed to the combined effects of increased prices and quantities imported.

TABLE 8

Evolution of the quantities of the most important food imports 2016–2022 (thousand tons)

		2016	2017	2018	2019	2020	2021	2022
Cereals	Total imports	3814,3	3782,2	3524,5	3422,9	4178,7	3906,3	3485,5
	Imports from the European Union	1364,7	1131,3	1098,3	903,9	926,3	1101,3	
Vegetable oils	Total imports	238	306	235,7	262	230,9	204,4	303,5
	Imports from the European Union	17,8	35,4	51,0	25,2	67,2	16,7	
Sugar	Total imports	487.2	695,7	715,8	497,5	388,9	196,9	293,2
	Imports from the European Union	9,745	4,079	22,877	8,224	8,100	4,491	

Cereal imports have fluctuated during the period 2016-2020, mainly due to the instability of domestic production due to climatic conditions. According to data from the National Observatory of Agriculture during the first four months of 2020, cereal imports reached 1,296.9 tons, compared to 1,184.6 tons during the same period in 2019, representing an increase of 9.5%, with the aim of securing the country's needs and strengthening reserves. On an annual basis, grain imports increased by 22%, but this was not fully reflected in the value of these imports, which increased by about 16%. With the exception of durum wheat, where import prices increased by 6.1%, import prices fell by 12.6% for soft wheat and by 23% for barley. As for grain imports from the EU, the volume decreased in 2019 and 2020 compared to previous years. The total volume of vegetable oil imports decreased between 2019 and 2020, although with quite a significant increase in the volume of imports from the European Union from 25,2 to 67,2 thousand tonnes – an increase of 167%.

The Russia-Ukraine crisis and the subsequent rise in world food prices seem to have had a greater impact on imports.

c) Policy responses, 2019-2022

Consumer-oriented policy responses

The COVID-19 crisis and concomitant quarantine measures virtually paralyzed economic activity in Tunisia, causing many workers to lose their jobs and sources of income. The unemployment rate exceeded 18% at the end of 2020, after a relatively stable rate of around 15% before the pandemic. The pandemic has also resulted in a creeping monopoly power and speculation in the food sector, disruptions to food distribution, the loss of local food markets, and higher retail prices. The monitoring of price index trends confirms an increase in inflationary pressures since the beginning of the crisis. The overall inflation rate reached 6.2 percent in March 2020, compared to 5.8 percent in February of the same year. This is mainly due to the increase in food prices, which recorded an inflation rate of around 5.1% in March, compared to 3.7% in February 2020. Within this inflationary context, food expenses have become a heavy burden for most families, with many having no income and no prior savings. Overall, the pandemic has exacerbated social disparities and had a greater impact on vulnerable and poor populations.¹⁹

To address this situation, the government approved an intervention program amounting to 2.5 billion dinars

Despite a 10% decrease in the volume of cereals imported in 2022 compared to 2019, the value of these imports recorded a notable increase of more than 33%, with the average import price of durum wheat increasing by 56.1% and that of soft wheat imports by 50.2%. Cereal imports from the European Union increased by about 20% in 2021. According to some data, recourse to the European market has further increased following the Russia-Ukraine crisis, given that Tunisia used to import over 40% of its wheat from Ukraine. In this context, Tunisia has concluded a loan agreement with the European Bank for Reconstruction and Development of 150.5 million Euros (about 500 million dinars), under the condition that it is used to finance the supply of cereals from the European Union.

In 2022, the value of vegetable oil imports increased by 122%, while the average import price increased by 49.7%. Sugar imports also recorded an increase in quantities imported (48.6%) and prices (52.4%) compared to the previous year. All of these factors led to a marked increase in the value of imports, and the self-sufficiency rate fell to 67%, which is the lowest for the entire 2016-2022 period.

(about 2.2 percent of GDP). This program included social assistance in the form of food supplies and cash grants to support laid-off workers, vulnerable and low-income groups, and the disabled. However, these measures were not sufficient to overcome the crisis and improve the conditions of affected social groups.

Only a small percentage of the intervention program was allocated to these social measures (6 per cent for needy families, 4.9 per cent for wage support and 9.8 per cent for the unemployed), while most of it was allocated to support private sector companies under the pretext of preserving jobs through exceptional delays in loan repayments and exemptions from tax and customs payments, or through direct injections of financial aid for the recovery of affected institutions. Social assistance was insufficient in relation to the harm caused to vulnerable groups, and its distribution was based on lists prepared by local and regional authorities on the basis of favoritism and personal relationships, and was the subject of much controversy and criticism. As for the wage support measures, they were provided through social funds i.e. they were allocated exclusively to the organized sector which automatically excludes a significant part of agricultural workers in the informal sector which comprises about 40 percent of the labor force in Tunisia.²⁰

The situation was no different in the face of the Russia-Ukraine crisis, which led to skyrocketing food prices, especially for cereals and their derivatives, vegetable oils, and animal products. Overall, the inflation rate rose rapidly from 6.6% in January 2022 to 9.1% in September of the same year and 10.3% in February 2023. The price of foodstuffs rose by an average of 14.1% in 2022, including 17% for cereals and their derivatives, and 23% for vegetable oils.²¹ The government has used the rhetoric of the fiscal deficit and the potential impossibility of importing certain products to push for a 26% reduction in food subsidies in the 2023 budget – a longstanding demand of the IMF.

Producer-oriented policy responses

Agriculture in Tunisia is heavily reliant on the supply of a large amount of production inputs such as seeds, seedlings, pesticides, chemical fertilizers, animal feed, and agricultural equipment. Supply disruptions related to the COVID-19 pandemic have led to shortages of these inputs and a spike in their prices, resulting in a significant increase in production costs, particularly for some strategic products that use these inputs to a significant extent. The government approved a reduction in the value-added tax and customs duties on these inputs. However, this made no difference as the difficulty of providing these inputs to producers was not only related to their lack of availability but also to the disruption of distribution, marketing, and transportation channels resulting from quarantine measures as well as farmers' limited access to financial support' (seasonal loans in particular).

In response to this situation, the Ministry of Agriculture and Hydraulic Resources has taken a series of measures to ensure the supply of seeds, seedlings, fertilizers and pesticides to cereal farmers. However, these measures

have not yet taken effect due to the Ministry's weak material and human resources, which have been significantly reduced ever since the adoption of the 1986 Structural Adjustment Program. In addition, the crisis has led to significant disruptions to the Ministry's administrative and technical operations. Moreover, the COVID crisis and associated quarantine measures have led to a severe shortage of agricultural labor (seasonal in particular), which has had a significant impact, especially on the harvesting of certain crops (fruits and vegetables in particular). Despite the government's decision to exempt agricultural workers from quarantine measures, the situation has not improved due to disturbances to transportation networks. Even those farmers who managed to harvest their produce, in the face of declining demand from homes and restaurants, they have been forced to accept terms imposed by intermediaries and sell their produce at low prices or accept its destruction. The government and the ministries concerned seem to have overlooked this problem.

In fact, the measures taken by the government have primarily sought to facilitate the export of agricultural products (oil, dates, etc.). In this framework, the number of air and sea flights to the Gulf countries and Italy has been increased, the support provided by the Center for Export Promotion and support to air and sea transport has been increased by 50% along with the (political) intervention to facilitate exports to Libya and the call to the European Union to grant Tunisia preferential and special prices.²² However, as the figures previously presented suggest, these measures have not been able to improve agricultural and food exports. Moreover, the real beneficiaries of these measures have not been the producers, but mainly a few intermediaries who are controlling export channels.

Case study of the olive oil value chain

This section examines the particular case study of the olive oil value chain in Tunisia as it provides a snapshot into some of the broader sustainability dynamics related to agricultural trade discussed in this report. Olives and olive oil represent a major commodity in the country's agricultural sector, with Tunisia being among the largest olive oil producers in the world.

Overview of the olive oil value chain

The olive oil sector is one of the most important agricultural activities in Tunisia. The total area cultivated with olive trees is about 1.9 million hectares, which represents 84% of the total cultivated area and 46% of the total arable land. There are about 102 million olive trees in Tunisia. With an average production of 194,000 tons during 2010-2020, Tunisia is considered the world's second-largest olive oil producer after the European Union.

Olive growing involves about 310,000 producers - 60% of the total number of farmers - who contribute to about 96% of the national production, with the remaining 4% of production covered by the state's olive growing land. Despite the importance of smallholders to olive oil production, they must compete with large monoculture olive farms which occupy more than 60% of the total olive growing area.

The olive oil industry in Tunisia consists of 1,750 mills with a production capacity of 43 tons per day distributed throughout the country. The processing chain also includes other industrial units with different specialties such as oil refining (15) and valorization of certain by-products (14) as well as conditioning and packaging units (35).

The storage capacity of olive oil in Tunisia is 365,000 tons, of which 150,000, or 41%, are held by the National Olive Oil center (Office National de l'Huile-ONH) and its regional centers in Tunis, Sfax, Sousse, Sidi Bouzid, Kairouan and Zarzis.²³

During the years 2010-2020, olive oil exports averaged 168,000 tons, representing more than 80% of national production and providing nearly 40% of export revenues from agricultural products. Domestic consumption, which has been declining for several years, reached 35,000 tons over the period 2010-2020, or less than 20% of national olive oil production.

As a result of this export trend and state encouragement, the area of olive oil cultivation has increased significantly and in an unplanned manner, from 1.45 million hectares in 1994 to 1.96 million hectares in 2020, representing an approximate increase of 35%. Around 40% of olive trees have been planted in what can be considered unsuitable or marginal land. This haphazard expansion largely explains the low productivity of olive farms in Tunisia which is the lowest in the world.²⁴

Environmental, economic and social implications

In 1962, the National Olive Oil Office was created with the main mission of ensuring the continuous and stable export of olive oil and the import of vegetable oils (which are cheaper) in order to generate additional foreign exchange earnings. This export trend has taken on a structural character and has become even more accentuated after the signing of the Association Agreement with the European Union, to the extent that exports account for over 80% of national production. Although olive oil exports provide a relatively stable revenue source, this export trend has a hidden high economic, social and environmental cost.

Around 80% of olive production is based on monocultures which has led to a deterioration in soil quality and fertility and contributed to the rapid spread of plant diseases. Olive tree expansion has, furthermore, come at the expense of production of basic foodstuffs, especially cereals, the cultivated area of which has declined by 28% in the last ten years. This implies a deepening dependency on the world food market to cover Tunisia's basic food needs, heightening the country's exposure to the negative repercussions that can follow from this dependency, especially in times of food crises.

Olive oil value chain

Agricultural Production

310,000 farmers (approx. 60% of total farmers)

1,96 million hectares (46,5% of arable land), 95,680 hectares (20%) irrigated

102,4 million olive trees, 75% producing (20-70 years)

Olive oil production: 1,5 million tons (average 2010-2020)

Processing

1,750 mills, 15 refining units, 14 pomace oil extraction units, 35 conditioning and packaging units

Olive oil production: 194,3 thousand tons (average 2010-2020)

Consumption

Local consumption (20%)

35,3 thousand tons (average 2010-2020) with a downward trend

Export (80%)

50 export units

168 thousand tons (average 2010-2020)

90% crude

10% packaged

In order to support olive oil exports, the government has implemented an irrigation program for olive groves, spurring the percentage of irrigated land in Tunisia to increase from 3% in 2010 to 20% in 2020. Bigger farmers and investment companies have benefited from these incentives. Currently, the irrigated area supplies about 80,000 tons of olive oil, with the government seeking to increase production to 100,000 tons by 2025. According to a study by the Tunisian Observatory of the Economy,²⁵ the production of one liter of olive oil under irrigation requires about 2,331 liters of water. This intensive production will lead to the further depletion of water resources in Tunisia.

Under the terms of the Association Agreement with the EU,²⁶ Tunisian olive oil is predominantly exported in crude form (90%) and at low-cost (\$ 2.845 per liter in 2019) mainly to Italy and Spain, where it is packaged and sold at higher prices. This constitutes a loss of revenue for Tunisia, while the Italian and Spanish manufacturers capture most

of the added value and can depend on a stable supply at relatively low cost.

Moreover, export-oriented production has led to an increase in the cost of olive oil locally, which has become unaffordable to Tunisians, especially as their purchasing power is worsening. The country is importing vegetable oils to meet domestic demand and to increase the surplus of exportable olive oil. Therefore, a significant part of the proceeds from the export of olive oil is used to finance imports of vegetable oils. This means that, although Tunisia is the one of the largest olive oil producers in the world, the average consumption of olive oil per person per year has fallen from 8.2 kg in 2000 to 6.7 kg in 2010 and 3.7 kg in 2020 - the lowest levels in the Mediterranean region (3.7 kg/person against 9.2 in Italy, 10.4 in Spain and 16.3 in Greece). This has contributed to worsening health conditions among the Tunisian population and the spread of diseases associated with unbalanced diets



Photo 1: Olive farming in North Africa. Credit: Saker El Nour

Conclusion and recommendations

Reviewing the nature of Tunisia's agri-food trade policy allows us to reach some conclusions on who has benefited and who has lost out under the current trade regime.

The first to benefit is the European Union, which controls significant surpluses of basic food products (cereals, vegetable oils, animal products). The Partnership Agreements negotiated by the European Union and the southern Mediterranean countries (including Tunisia) allows them to protect their producers against foreign competition while opening up the markets of the southern Mediterranean countries to EU surpluses.

The second to benefit have been domestic food import and export companies. Trade liberalization has been coupled with the withdrawal of the state and the privatization of all food collection, distribution, export and supply activities. These measures have allowed a few actors to accumulate huge profits at the expense of farmers and consumers. As an example, the export price of dates in Tunisian dinars increased by 67% between 2016 and 2020,²⁷ while the production price increased only slightly by 6%. As a result, the ratio of the production price (i.e. the price to the producer) in the export price dropped from 77% in 2016 to 49% in 2020, which means that exporters are the main beneficiaries of the profits derived from exports.

Tunisian farmers are likely to be the first ones to lose out or to be negatively affected by food trade liberalization policies. Domestic market opening and supply liberalization have forced farmers to compete directly with imported products - especially those from the European Union, which are still heavily subsidized. For example, in 2010-2018, EU export subsidies for cereals averaged about 30 percent.²⁸ Overall, despite commitments under the WTO agreement, the EU continues to subsidize its farmers significantly. In the period 2014-2020, the budget of the Common Agricultural Policy (CAP) amounted to 291 billion Euros, 71% of which was allocated to direct transfers to farmers.

This is against a background where the Tunisian state has abandoned almost all forms of support, especially for small and medium-sized farmers. Moreover, Tunisia, which is currently implementing the commitments made under WTO agreements, has neither the means nor the capacity to support agriculture at the same level as the European Union. Indeed, in terms of ratio to GDP, agriculture represents nearly 1.5% in the EU against about 10% in Tunisia. The relative weight of agriculture in Tunisia is six times higher than that of the European Union. Put another way, this means that subsidies equivalent to 10% of agricultural value added imply a transfer of 0.2% of GDP from other sectors of the economy to agriculture in the EU, against 1.2% in Tunisia. Thus, the policy of subsidizing agricultural production carries a greater burden on the rest of the Tunisian economy, which cannot support agriculture at the same level as the EU.

At the same time, farmers are faced with skyrocketing prices for inputs that are mostly imported, with some companies having a monopoly on local supply and distribution. This is compounded by the impact of the continued devaluation of the dinar, which has become used as a mechanism to encourage exports. In 2018, due to high production costs, more than 12,000 Tunisian farmers abandoned agriculture.²⁹

Among those negatively affected, we also find consumers, particularly those with middle and low incomes. Trade liberalization and the associated support for export-oriented agriculture have led to increased dependence on imports to meet the food needs of Tunisians in a context of rising prices on world markets. In the face of this, successive governments have found no solution but to progressively reduce spending on subsidizing basic foodstuffs (cereals, vegetable oils, etc.), which has resulted in an increase in their prices and a concomitant reduction in food access, especially for vulnerable populations.

Recommendations for fair agricultural trade and sustainable development

The current structure of agri-food trade in Tunisia whereby the country exports water intensive agricultural commodities and imports basic food products is clearly not working. This calls for a rethink of Tunisia's agricultural and food policies away from an overreliance on international trade as a way to most effectively support the food security of its people towards a stronger focus on domestic food production and building a new model based on the principles of food sovereignty. The following recommendations are offered in this light:

Review the Association Agreement with the EU

Our examination of the case of Tunisia has shown that the COVID crisis and the Russian-Ukrainian war have only brought to light the fragility of the current food policy pursued by Tunisia. Such fragility, primarily resulting from the conclusion of unequal trade agreements, particularly the Association Agreement with the EU, has pushed agricultural production toward export at the expense of the production of subsistence crops, making Tunisian food security dependent on global markets and vulnerable to disruptions. It is therefore necessary now to reconsider these approaches and agreements from the perspective of the right to choose the agricultural policy that suits the requirements and resources available, and the right to protect domestic producers from all forms of foreign competition.

Enact public policies to support and prioritize small and medium-sized farmers

In continuity with the colonial model, Tunisian agricultural policy has relied, since the 1960s, on large-scale farming as the only way to intensify production and achieve the goals set for agriculture in the framework of economic development. This has led to the marginalization and exclusion of small and medium-sized farms from the provision of land, funding and various agricultural support services, which has had negative repercussions for agricultural production, unemployment, and poverty in rural areas.³⁰

In recent years, many studies have challenged the illusion that large-scale farms are more efficient, and proved that small and medium-sized farms are more economically efficient than large capitalist farms based on wage labor.³¹ They also demonstrated that family farms fulfill an important social function (reducing poverty and unemployment), are more resilient to climate change, and are better adapted to ecological farming methods.³²

It is therefore necessary to restore the status of small and medium-sized family farming by orienting public policies towards supporting this form of agriculture and providing farmers with the necessary access to land and enabling them to use all the necessary funding, support, and technical assistance mechanisms.

For the olive oil value chain, this means limiting the expansion of olive-growing areas under monoculture, abandoning irrigated olive growing, promoting the export of domestically processed olive oil, and encouraging as much as possible local consumption to reduce dependency on imported vegetable oils.

Focus on ecologically responsible products in domestic agricultural production

Over the last few decades, agricultural and food policy in Tunisia has been based on the liberal concept of "food security" which determines the use of available resources according to the signals of the global market (profitability, productivity, etc.) and has reduced food issues largely to a computational balance between exports and imports. This policy has led to the gradual discontinuation of production for the domestic market (especially cereals) for profitability reasons, in favor of export crops (olive oil, dates, citrus, etc.) and the resulting depletion of natural resources (land and water).

In a context where global food markets are characterized by high price volatility, monopolies and rampant food price speculation,³³ it is all the more urgent to revisit the current trajectory of Tunisia's agricultural and food trade policies in light of the expected impacts of climate change. Indeed,

food price volatility is likely to be exacerbated by climate change, and global markets will no longer be accessible to the poorest countries and those with insufficient purchasing power.³⁴ In Tunisia, climate change may lead to a decrease in arable land and water resources, along with a decline in the profitability of many farming activities. Tunisian agriculture is, in fact, already impacted by the effects of climate change: in 2016, drought-related agricultural losses in the country amounted to an estimated 2 billion dinars (905 million dollars).³⁵

To cope with the ongoing effects of climate change and increased incidence of drought, the Tunisian government

recently implemented a ban on irrigated agriculture in certain regions.³⁶ However, with climate modelling projecting annual maximum temperatures likely to increase by 3.8°C by 2050 and overall precipitation to decrease by between 4% to as much as 22% by 2050, the country needs to think beyond temporary irrigation bans to fundamentally adapt its agri-food trade model.³⁷ This means shifting from the export of water-intensive agricultural commodities for the EU market towards a system geared towards a food production system anchored in the principles of fair trade, socio-economic justice, and ecological resilience.

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