



**Dimensions**  
for Strategic Studies

study



# The reality of food security in Türkiye during 2022

Analytical approach to study the  
crisis aspects and details

Prepared by:  
**Khaled Alterkawi**

July 2022  
[www.dimensionscenter.net](http://www.dimensionscenter.net)



## **Dimensions** for Strategic Studies

Dimensions Centre for Strategic Studies (DCSS) is think tank, dedicated to the study of the Middle East and North Africa affairs, provides the Arab readers with a substantive insight on the region's political, economic and social issues and dynamics.

The DCSS was founded in the United Kingdom on January 2020 ,1, and is headquartered in London.

Dimensions Center for Strategic Studies is interested in the Middle East and North Africa (MENA) affairs in particular, addressing influences the region has and the effects of this region's interactions with the rest of the world.

We strive to provide an open and accessible space in order to inform relevant persons of experts and academic readers alike, in a simplified style far from the complexities brought by experts, technicians and academics.

We are keen to provide topics in an intensive manner that goes in line with the challenges of modern times and in brief way which can meet the needs of researchers and readers as well.



# Contents

<b>Introduction</b> .....	04
<b>First: The global food crisis</b> .....	05
<b>Second: Production of main cereals and other agricultural commodities</b> .....	09
<b>Third: Production of milk and animal products</b> .....	13
<b>Fourth: The level of self-sufficiency of the main food commodities in Türkiye</b> .....	17
<b>Fifth: Demand and price problems</b> .....	19
<b>Sixth: The causes of the crisis in Türkiye</b> .....	23
<b>Conclusion</b> .....	24



# Introduction

Since the start of the “Russian-Ukrainian” war, talk about the food crisis has become more central in the international scene, bearing in mind that repeated developments connected with supply shocks and supply chain crises have accompanied the spread of the “Covid19-” epidemic in 2020.

At such times, supermarkets' shelves were empty of a number of goods, as people crowded to buy foodstuffs, while many families stored an excess of what they needed.

This scene seemed very interesting and an important topic for all people, which pushed researchers to put it under the microscope.

In Türkiye, there was bad news, talking about the loss of some commodities due to a sharp rise in prices whose roots began before the crisis of the "Russian-Ukrainian" war. This was accompanied by an increase in the prices of fuels and basic materials in the country.

Türkiye has been facing, for several years, a double-digit inflationary figure, while the government is striving resolutely in attempts to stabilize or curb it, as strict measures have been taken to push the Turkish lira "TRY" forward and foster greater confidence by Turkish people in their national currency.

Although such steps seemed to have succeeded temporarily in stabilizing prices, their effects, however, soon receded due to the impact of local political and other global economic factors that, brought many economic problems to the surface.

This study is an attempt to reveal the aspects of the food crisis in Türkiye and analyze its main causes, by highlighting food products and the required quantities. This paper provides unprecedented analyzes in the field of estimating the gaps for various major commodities. Moreover, it is an attempt to anticipate the future of the crisis in the light of the events and analyzes that the research set out in detail.



## First: The global food crisis

As soon as the lockdown and the subsequent quarantine and travel ban were imposed in China and then in various parts of the world in late 2019, as a result of the outbreak of COVID19-, countries began to suffer from difficulty in securing imported foodstuffs.

Despite the reduction of restrictions in the second year of the epidemic outbreak, transportation costs and the rise in the price of fuel in 2021 seemed to have a clear impact on food prices in the world.

As soon as the lockdown and the subsequent quarantine and travel ban were imposed in China and then in various parts of the world in late 2019, as a result of the outbreak of COVID19-, countries began to suffer from difficulty in securing imported foodstuffs.

Despite the reduction of restrictions in the second year of the epidemic outbreak, transportation costs and the rise in the price of fuel in 2021 seemed to have a clear impact on food prices in the world.

Once countries caught a breath after they relatively passed the hardship of “COVID19-”, the “Russian-Ukrainian” war began.

These two countries are among the world’s largest exporters of major commodities, including wheat, barley, maize, minerals, gas and oil, which greatly affected global prices.

Consequently, inflation rates began to go up.



Figure No. 1:



The international consumer price index increased from 92.5 points at the end of the first quarter of 2020 to more than 158 points at the end of the first quarter of 2022.<sup>1</sup>

Such a rate of increase in prices exceeded the one that occurred in 2008 following the global crisis at the time,<sup>2</sup> especially since some commodities' prices increased in an unprecedented way.

Wheat, for example, rose by about %800 in the middle of 2022 compared to the beginning of the same year.<sup>3</sup>

The risks posed by the “Russian-Ukrainian” war on food supply chains around the world were mainly reflected in a group of countries. Some countries like Georgia, Moldova, Belarus, Albania and Türkiye depend heavily on Russian and Ukrainian wheat,

(1) «The FAO Food Price Index fell for the second consecutive month in May», FAO Food Price Index, FOA, 03/06/2022: [bit.ly/3HLWluA](https://bit.ly/3HLWluA)

(2) «Global economic prospects», World bank, 2022, P.23: [bit.ly/3Qlinlf](https://bit.ly/3Qlinlf)

(3) «Global economic prospects», p. 32.



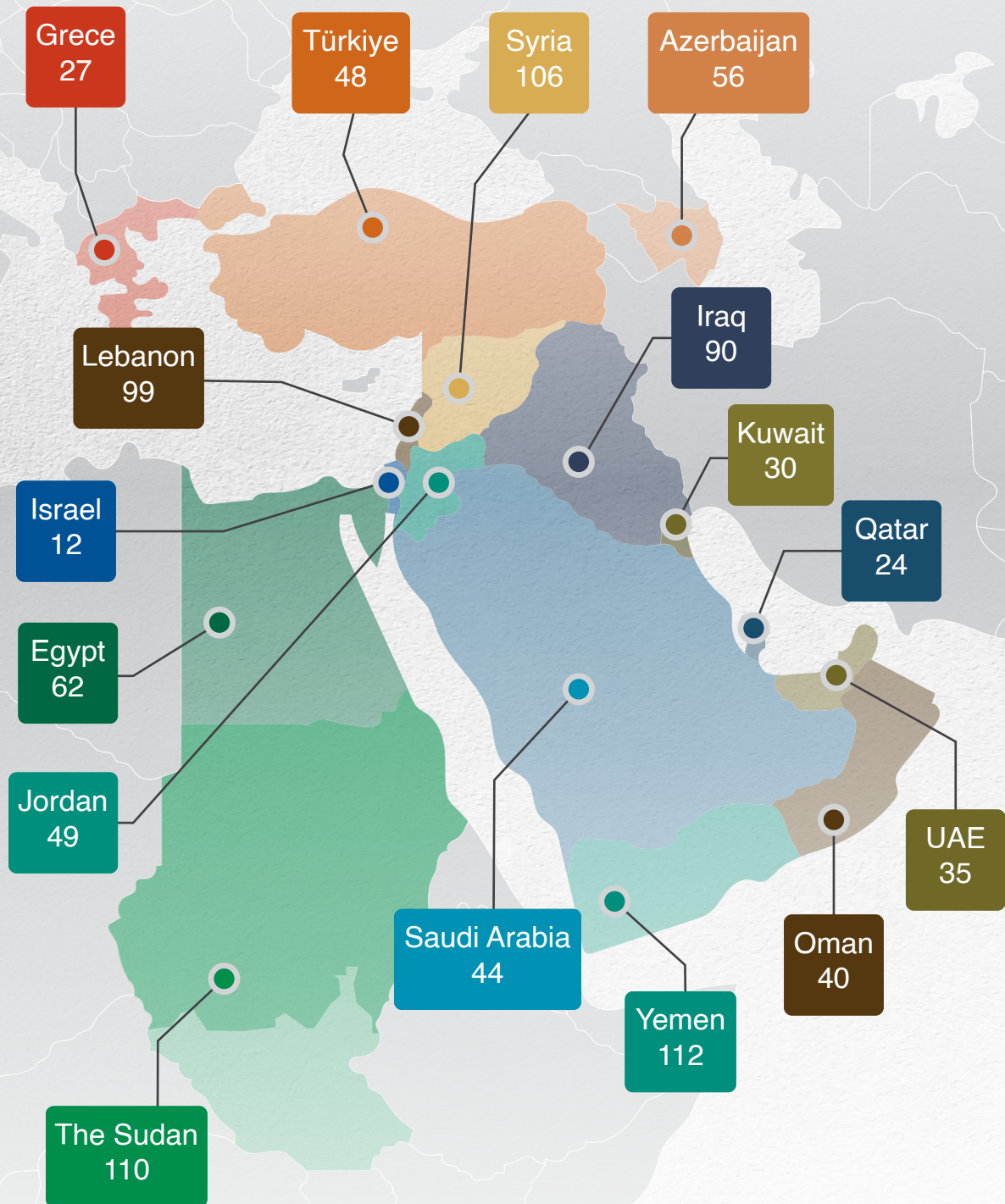
as the latter depends on these two countries for %75 of its total wheat imports.<sup>4</sup> However, the Turkish production of wheat, whatever its quantities are, can help to overcome the problem, especially if we know that Türkiye has comparatively better situation than the rest of the countries in the region.

(4) «Global economic prospects», p. 125.



## Figure No. 2:

### Food security index in Türkiye and some countries in the region in 2021



Source: Global Food Security Index (GFSI) (economist.com)





## Second: Production of main cereals and other agricultural commodities

At the beginning of 2022, the population of Türkiye reached nearly 85 million, including 64 million over the age of fifteen.

The country's labor force consists of 34 million, of whom 5.4 million works <sup>5</sup> in the agricultural sector.

On the one hand, this sector stands as a lifeline for the population, who live in non-major cities, different towns and villages.

On the other hand, Türkiye produces more than 50 million tons of agricultural foodstuffs in the vegetable sector, while it produces more than 50 million tons of milk in addition to two million tons of meat.

This makes Türkiye one of the largest producing and consuming countries of foodstuffs.

When looking at the production quantities of the main materials in Türkiye, it appears that the production of wheat - the main commodity, upon which manufacturing bread, pasta, and bulgur in addition to other products used in the country relied- is estimated at 20 million tons annually, of which about 7.5 million for export.

Less than 13 million tons of the produced quantities of wheat remain for the internal consumption, despite the fact that the country's need exceeds 15 million tons annually.

A reality as such prompts Türkiye to import about 8.4 million tons, which brings back the idea of a surplus. According to (Fig. 3), it appears that the Turkish population cannot actually feel any kind of shortage in this material.

In other words, there is virtually no problem in securing bread or wheat-based products in Türkiye.

(5) « We grow up with employment», Iskur International, 2018: [bit.ly/3QxIEZM](https://bit.ly/3QxIEZM)



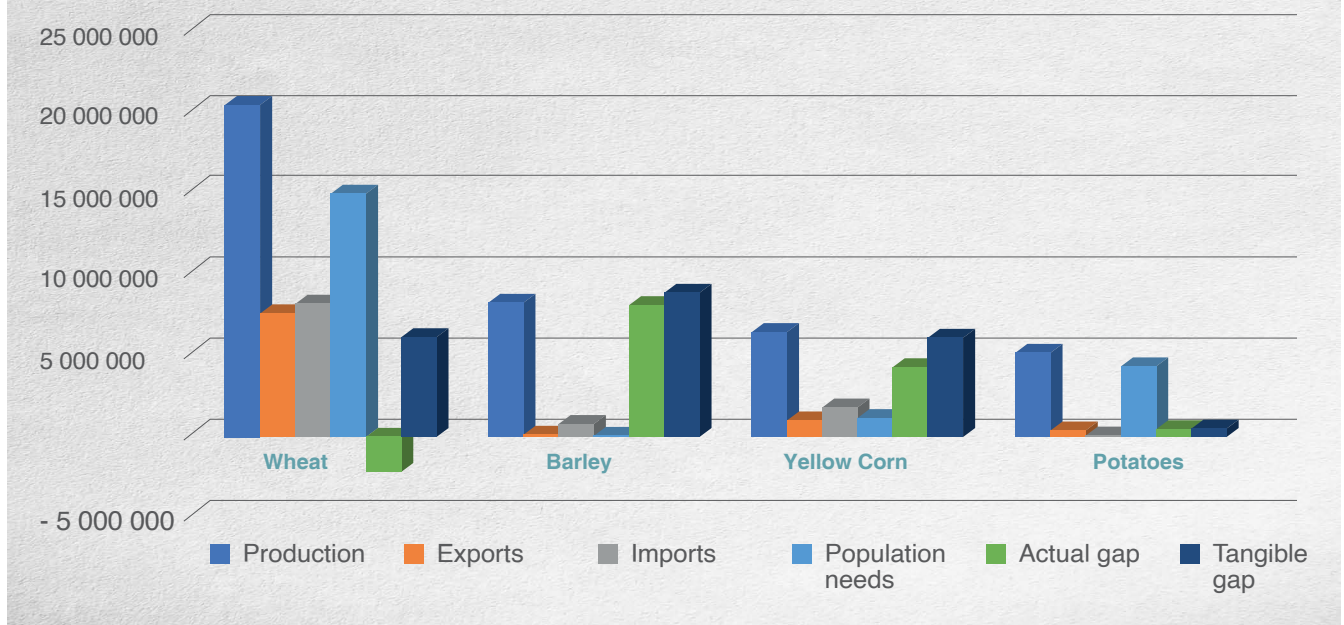
Export, however, contributes to raising the price of these materials relatively; because transportation costs and fees are added to the imports' prices and because it takes time for these products to reach consumers' hands.

Sometimes this makes Türkiye face shortages, especially at times of global crisis, during which it is difficult to secure imports, while local traders tend to export products to reap higher profits.

As for barley, maize and potatoes, Türkiye has actual production surpluses, with very low exports, which attains sufficiency for the local markets.

**Figure No. 3:**

### Production of some basic commodities in 2021 and the expected gap (tons)



Prepared by the researcher based on the data issued by the Turkish Statistical Organization, Agriculture Database



Türkiye produces large quantities of some important by-products, such as sugar, tea, lentils, chickpeas, beans, etc, For example, it produces about 3 million tons of sugar.

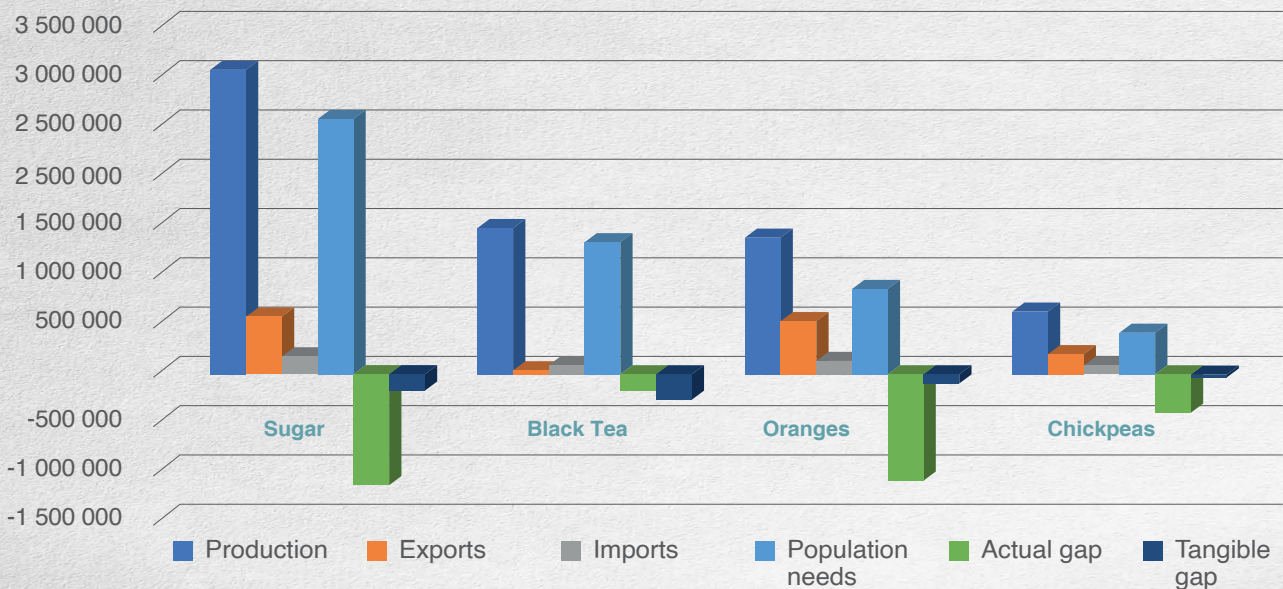
This number is more than the quantities needed by the population, which is 2.5 million tons.

However, exports of sugar, which are close to 600,000 tons, steers the country to face an actual small gap that contributes to raising prices, especially if imports, which are about 200,000 tons, are delayed in reaching the country.

This is also applied to the issue of tea, which is one of the most popular drinks in Türkiye.

Figure No. 4:

### Production of some basic commodities in 2021 and the expected gap (tons)



Data issued by the Turkish Statistical Organization, Agriculture Database.



As for other important foodstuffs, such as oranges, lentils, rice and beans, Türkiye, despite it produced reasonable quantities, has obvious gaps in such materials as a result of exporting quantities of them.

The tangible gap of oranges, for instance, is estimated at 100 thousand tons, while the actual gap of this material is more than one million tons.

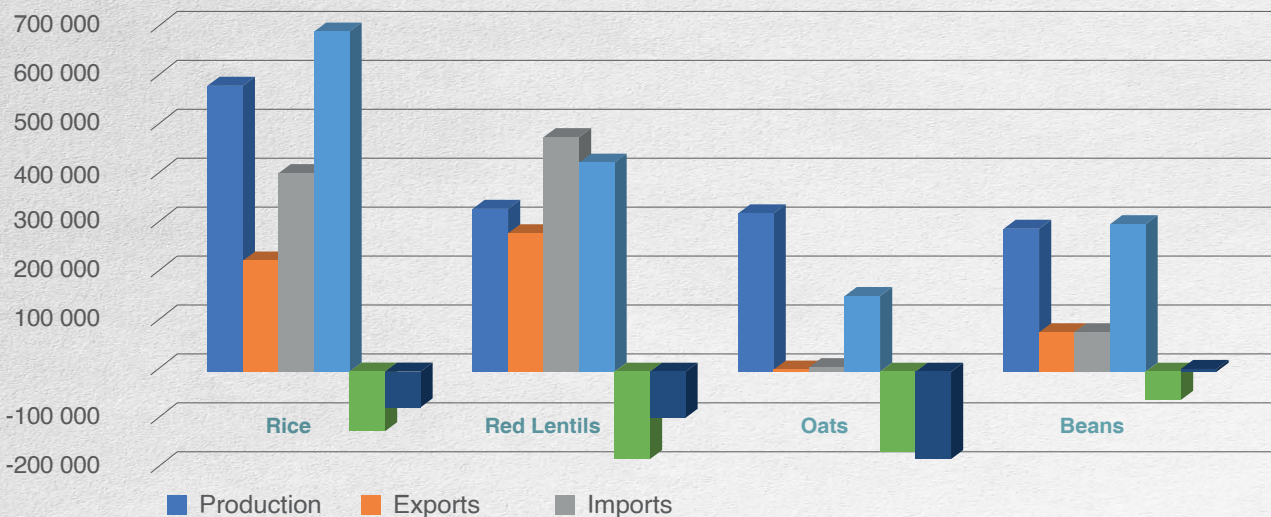
In the case of rice, the actual gap is beyond 1 million tons, as the required quantities are greater than the produced ones.

Despite that fact, more than a third of the rice production is exported, which makes the gap relatively larger.

The same applies to the production of red lentils.

Figure No. 5:

### Production of some basic commodities in 2021 and the expected gap (tons)



(6) Data by the Turkish Statistical Organization, Agriculture Database.



## Third: Production of milk and animal products

Türkiye is situated in a geographical location extends over a wide area.

This provides it with a widespread pastureland, which is essential for live-stock-raising.

Because it is surrounded by the world's major seas, it has a long coastline that provides the country with abundant fish wealth.

The fish production was estimated in 2021 at more than 800 thousand<sup>7</sup> tons. 170,000 tons of the small fish<sup>8</sup> caught annually, which is the biggest quantity among the other types.

This kind of fish is considered a main meal in popular and luxurious restaurants.

The medium-sized sprat,<sup>9</sup> comes next in terms of the quantities caught.

This type is offered as a hearty meal preferred by fine restaurants in Türkiye. Annually, the fish production of this type approaches 30 thousand tons.

In addition to these types of fish, there are quantities coming from fish farming that are raised in special facilities, most notably the bass fish,<sup>10</sup> which is known for its large size.

This makes farmers resort to breeding it.

However, despite this abundant production, fish is not a cheap food, as the average price of a kilo of bass fish is about 100 Turkish liras (about 6\$).

(7) Data by the Turkish Statistical Organization, Agriculture Database.

(8) Turks call it "Hamsi", and it is a main meal, while this type of fish is known in English as "Anchovy".

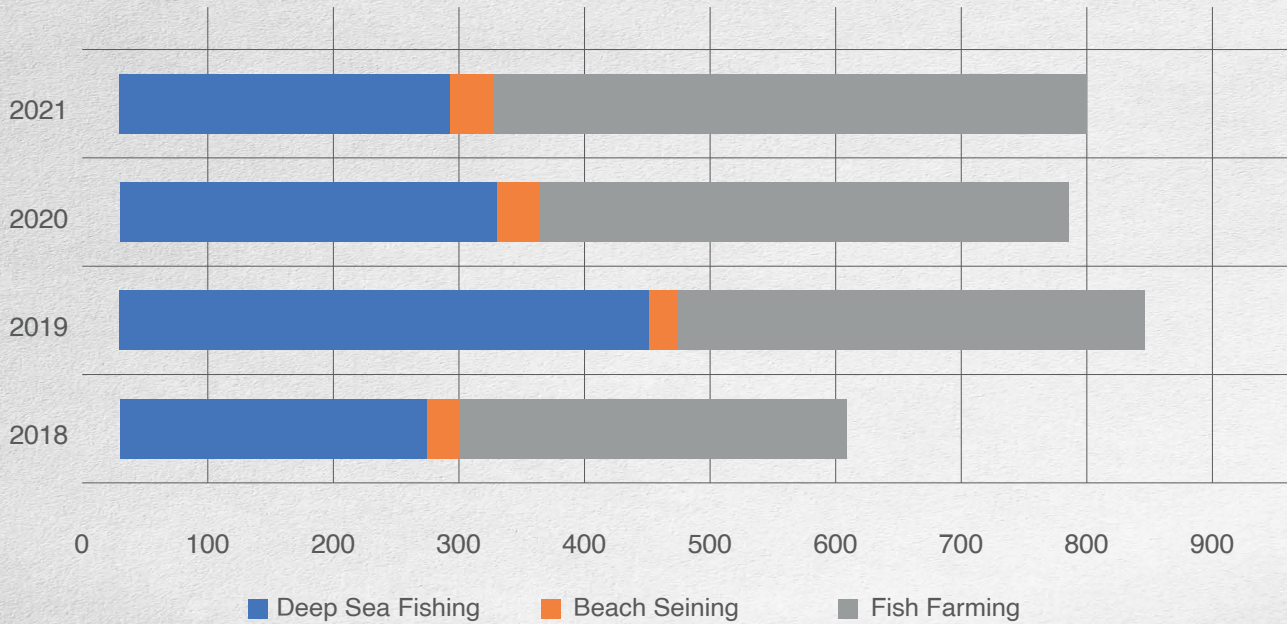
(9) Data by the Turkish Statistical Organization, Agriculture Database.

(10) It is known in Turkish as "Levrek".



Figure No. 6:

### Fish production in Türkiye over several years (thousands of tons)



In parallel to that however, Türkiye has about 73 million head of livestock, while the production of red meat in the country approaches two million tons annually, where cows and calves are the main source of meat with about 75% of the total production.

Sheep comes next with approximately 20%.



**Table No. 1:**

**Production of red meat and milk in Türkiye by type during 2020 and 2021 (Quantity: million tons)**

Type	2020 Milk	2020 Meat	2021 Milk	2021 Meat
Total production	23.5	1.73	23.2	1.95
Cows	21.7	1.3	21.3	1.4
Sheep	1.1	0.4	1.14	0.4
Goat	0.59	0.1	0.62	0.1
Buffalo	0.1	small quantities	0.1	small quantities

Source: data issued by the Turkish Statistical Organization

Türkiye is a large milk producer, as most of its production of milk is used in the famous Turkish dairy industry.

Such products reach most countries around the world, noting that there are well-known Turkish brands, which are the main Turkish exported products to the region's countries and other places in the world, such as PINAR.<sup>11</sup>

As for poultry farming, Türkiye produced 2.6 thousand tons of chicken meat in December 2021 (the peak season), and more than 1.6 million eggs in the same month, knowing that the country's annual production is estimated at about 1.5 million tons of chicken meat and 15 million eggs.

At first glance, it sounds that these products are really abundant, but the real problem lies in exporting most of the produced quantities, as most Turkish goods travel to foreign markets,

(11) PINAR has branches in various Turkish states, and has a factory in Jebel Ali in the UAE and a huge promotional office in Germany.



where the value of Turkish food exports is about 1 billion US dollars per month, i.e., about 12 billion annually.<sup>12</sup>

Such big numbers, without doubt, leaves the internal Turkish market struggling against a supply gap that will push prices up even further.

(12) Data by the Turkish Statistical Organization, Foreign Trade Database.





## Fourth: The level of self-sufficiency of the main food commodities in Türkiye

When looking at the main components of the food basket for the Turkish family, it seems that it almost has enough quantities of the locally produced wheat, beans, rice and potatoes.

Figure No. (5) <sup>13</sup> shows that chickpeas, potatoes, wheat, oats, barley and beans are products that touch the 100% line.

However, there are problems in maize and sunflower seeds, which are mainly used in the oil industry, as there is a problem of self-sufficiency, where the quantities of these two crops are just below %100 in Figure No. (5).

This also applies to soy. Perhaps this explains part of the oil crisis that occurred in Türkiye in 2022, following the rise in prices against the background of the “Russian-Ukrainian” war. <sup>14</sup>

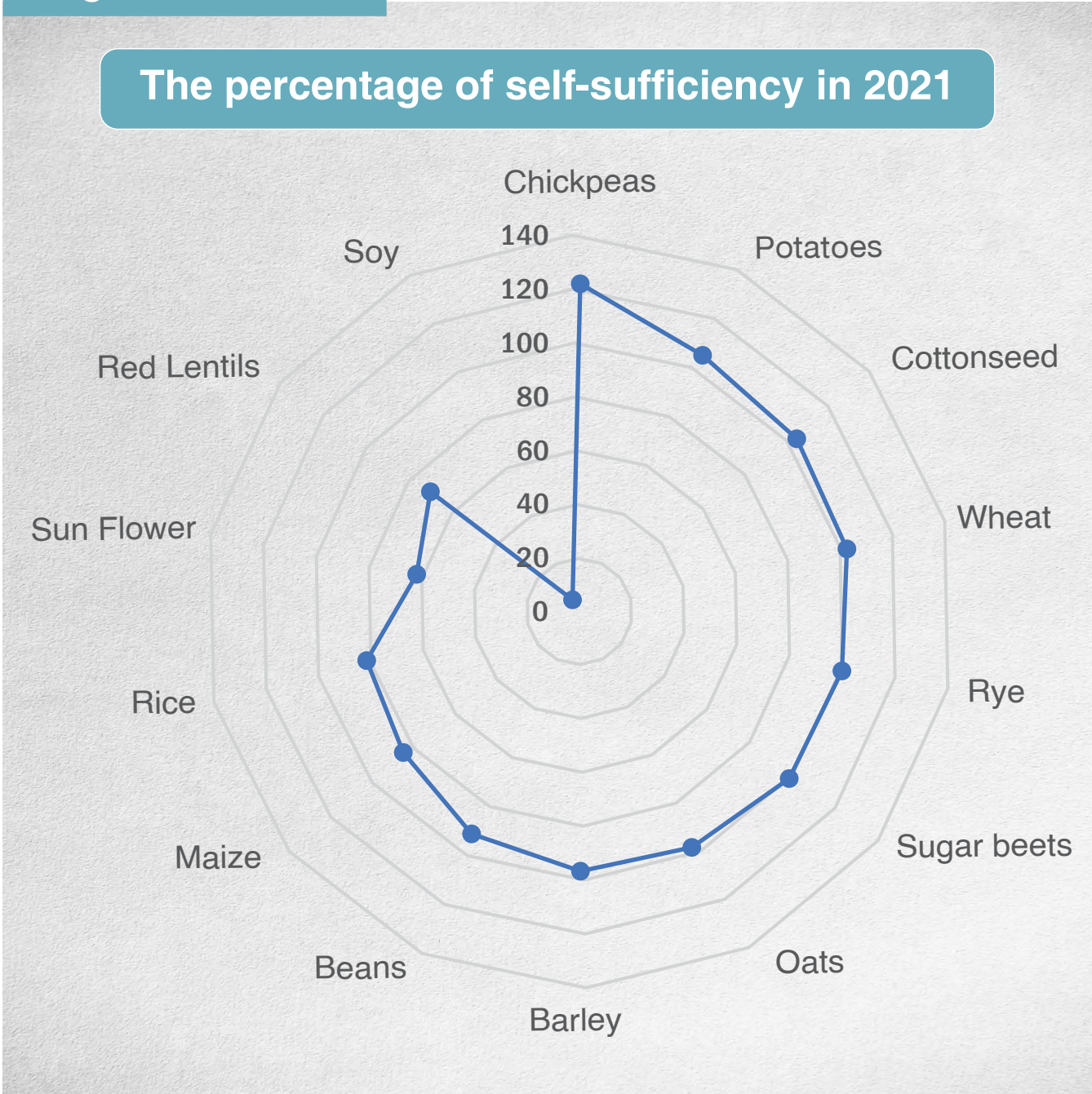
(13) Prepared by the researcher based on the data issued the Turkish Statistical Organization, Agriculture Database.

(14) "Is the oil crisis in Türkiye a rumor or real one?" Al Jazeera Net, 12/03/2022: [bit.ly/3b90Atm](https://bit.ly/3b90Atm)



Figure No. 7:

### The percentage of self-sufficiency in 2021





## Fifth: Demand and price problems

With regard to demand, the Turkish population suffers from increasing prices in general.

The prices of vegetables, fruits and other food commodities are currently rising almost daily.

In a look at the change in the price level on an annual basis (Figure 6), it appears that these prices rose very significantly, as the rate of increase in March 2022 reached nearly %100.



**Figure No. 8:**

**Annual price changes in agricultural commodities since March 2020**





Considering the prices of the 100 most important food commodities in Türkiye (Figure -9-), it appears that their prices have developed significantly, becoming more inflated over time.

If we take a look at prices from 2005 to 2022, we find that inflation occurred in 2008 in the wake of the global financial crisis, before prices returned to a relative decline, knowing that they did not return to what they were before the crisis.

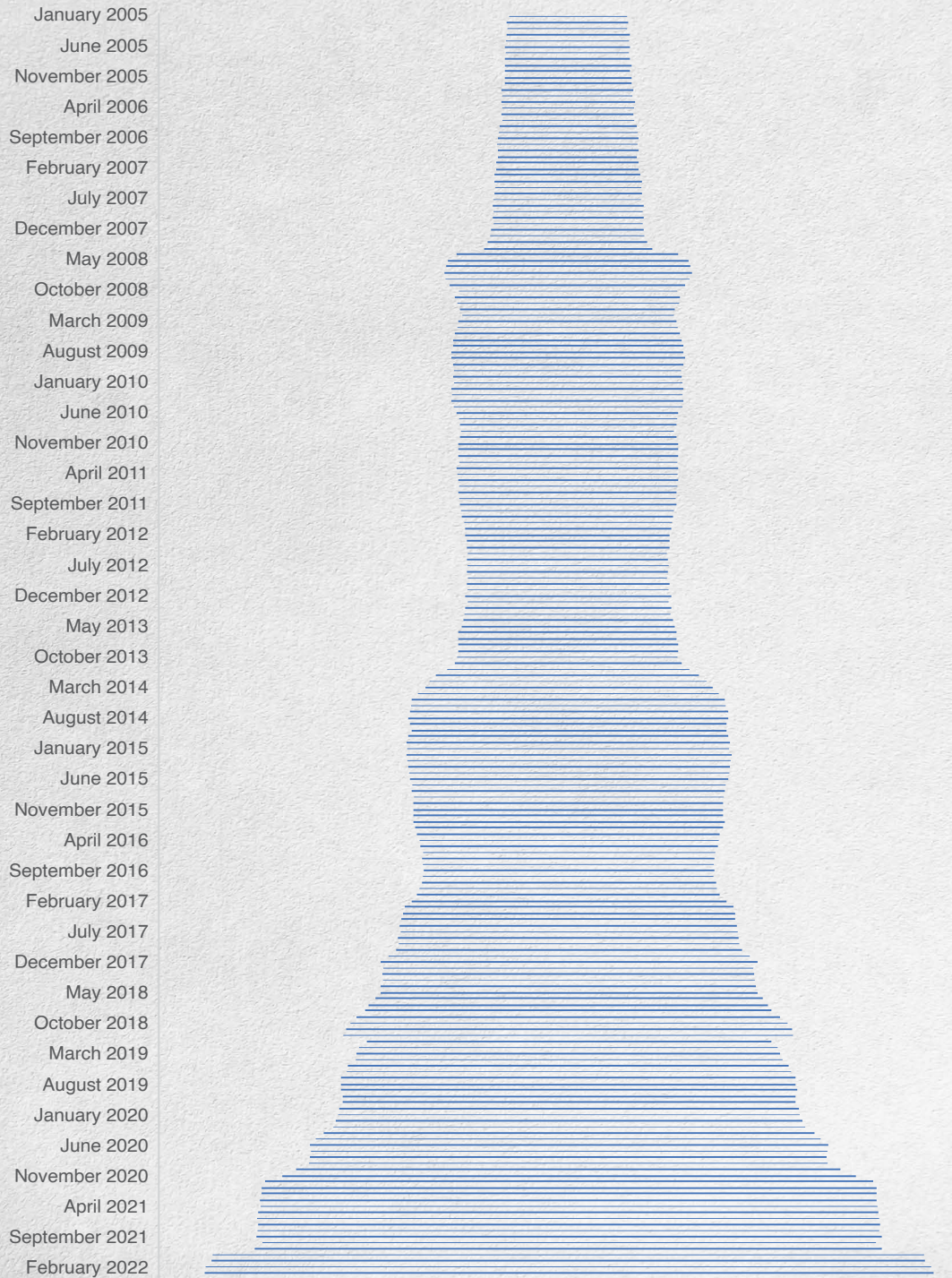
Moreover, another inflation occurred in 2014 as a result of the economic crisis in Türkiye, and then there was a slight decline in 2016, but prices remained high compared to 2013 and earlier.

The largest inflation appeared in 2018, then in 2021, and it continued to go up until the first quarter of 2022, as shown in Figure (7).



## Figure No. 9:

### Prices of basic commodities in Türkiye between 2005 and 2022



Prepared by the researcher based on the data issued by the Turkish Statistical Organization, Agriculture Database.



## Sixth: The causes of the crisis in Türkiye

According to the previous analysis and with respect to both supply and demand, it appears that the most prominent causes of the food crisis that are reflected in the markets in Türkiye, can be concentrated in the following points:

**1. The problem of supply:** It is noted that Türkiye relatively produces larger quantities of food commodities, whether in the agricultural or livestock sectors or even materials manufactured on the basis of these two sectors, than the quantities produced by the region's countries.

In light of this situation, we can notice that the Turkish production meets most of the needs required by the country's population and sometimes production goes beyond needs.

However, the problem lies in the process of converting this production into supply in the markets, as the production of goods goes through stages.

Some of these goods go to the manufacturing sector, whereas another part for export, and the rest go to the local markets, which significantly reduces the supply.

**2. Demand crisis:** It is noted that a sharp rise in prices resulting from frequent inflation led to this crisis.

This happens because citizens lose their normal purchasing power every month, which makes families unable to afford basic needs and, consequently, the food crisis arises.

This means that a high supply of commodities is available for most basic ones, but purchasing power prevents this supply from turning into a demand, which could meet the family's needs.

# Conclusion

It is noted that what the Turkish government is doing is in the interest of supporting agricultural production, as it offers incentives to stimulate this production and the animal husbandry.<sup>15</sup>

Moreover, the Turkish private sector is working to seize the opportunities of the global food crisis to increase supply and meet needs, whether through larger raw agricultural investments or through agricultural-based industrial investments.

Thus, the agricultural supply of Türkiye's main commodities is expected to continue rising by small percentages close to 1%, whereas it might be constant in other commodities.

In both cases, supply will remain acceptable in terms of its ability to meet family needs.

However, it will be hampered by two main issues in the near future, namely:

**1. The problem of manufacturing:** This problem lies in allocating more agricultural production for serving industry purposes.

As such, changing the shape of the required material and adding the manufacturing cost to it makes the resulted material inappropriate for families to consume either as a raw material or as an affordable commodity.

Such a dynamic, however, can produce more food commodities.

**2. The issue of exporting:** On the one hand, Türkiye is very interested in exporting since Turkish products have various advantages, not least because they are halal products.<sup>16</sup>

(15) For more on government support for the agricultural sector, see: Turkish Ministry of Agriculture and Forestry, Agricultural Support: [bit.ly/3be2lQF](https://bit.ly/3be2lQF)

(16) For more on the halal commodities export model, see: Analyzing the Turkish economic model in the face of economic models in the Middle East, Khaled Al-Terkawi and Kinda Al-Terkawi, Labbab Magazine, Issue 13, p. 113, February 2022: [bit.ly/3tTYpR9](https://bit.ly/3tTYpR9)





On the other hand, many countries around the world are interested in the Turkish products, which make them required items. Also, the prices of Turkish products are lower compared to the prices of foreign ones, which also increases the demand for them. In both cases, there will be a goods scarcity within the internal markets.

Certainly, reducing exports is not a solution to the problem of oversupply in internal markets, and it will not provide a solution to the economy.

It's just the opposite! Therefore, the solutions for resolving the problem of supply are related to increasing agricultural investments in Türkiye by exploiting the opportunities provided by the decrease in global supply.

Today, Türkiye can constitute an acceptable alternative for some investors in the agricultural sector, in terms of plant and animal production.

This should be a sale point for Türkiye, against the background of economic cooperation with the countries of the region.

Moreover, Turkish investment in the field of agriculture in African countries and neighboring countries is an important issue, and Türkiye must take advantage of the influence it has as a result of gains it harvests in politics and military movements.

As for the issue of demand, it seems that prices will continue to rise in Türkiye, in the foreseeable future, due to the existence of the inflation rates based on structural reasons in the Turkish economics.

Consequently, the purchasing power of Turkish families will decrease over time. In the medium term, it is expected that the general level of prices will return to stability, and thus both prices and purchasing power would return to stability.

This, however, will be without a significant decline in those prices or any significant increase in purchasing power, which means that the country will remain in front of a food crisis whose demand factors are the most important part.

In this regard, the municipalities in Türkiye's states are responsible for providing the neediest and poorest families, like widows, orphans, and disabled people with the necessary needs.





Furthermore, the solutions to address inflation taken by the government through the Turkish model that was announced recently, which is to encourage savings and convert it into investments, increases production and enhances employment, is just a policy that may succeed in the medium term, i.e. within two to three years.

This enhances the capabilities of Türkiye in production, improves salaries and reduces unemployment. As such, prices could relatively return to lower levels.



# Dimensions

for Strategic Studies

-  \DimensionsCTR
-  \DimensionsCTR
-  \dimensionscenter
-  \dimensionscenter

---

[info@dimensionscenter.net](mailto:info@dimensionscenter.net)