

Achieving Food Security in Algeria Balancing Self-Sufficiency with Strategic Trade

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Abstract:

This paper examines the relation between self-sufficiency and food security. While some food self-sufficiency benefits food security, a rigid focus on domestic production can be counterproductive. We argue for a nuanced approach with economic flexibility to leverage comparative advantages and engage in strategic trade, ultimately strengthening food security. Conversely, rigid self-sufficiency policies with economically unviable import substitution can undermine food security. True food security goes beyond domestic production; it requires access to a stable and affordable food supply, even through international trade. This paper advocates for a balanced approach that embraces both domestic production and strategic trade partnerships for a more sustainable and resilient food security strategy.

Keywords: Food security, Self-sufficiency, Economic flexibility, Trade, Import substitution. **Jel Classification Codes :** L53 ; L78 ; M00.

Résumé:

Cet article examine la relation entre l'autosuffisance et la sécurité alimentaire. Même si une certaine autosuffisance alimentaire favorise la sécurité alimentaire, une focalisation rigide sur la production nationale peut s'avérer contre-productive. Nous plaçons en faveur d'une approche nuancée assortie d'une flexibilité économique permettant de tirer parti des avantages comparatifs et de s'engager dans des échanges commerciaux stratégiques, renforçant ainsi la sécurité alimentaire. À l'inverse, des politiques rigides d'autosuffisance assorties d'un remplacement des importations économiquement non viable peuvent compromettre la sécurité alimentaire. La véritable sécurité alimentaire va au-delà de la production nationale ; cela nécessite l'accès à un approvisionnement alimentaire stable et abordable, même par le biais du commerce international. Ce document préconise une approche équilibrée qui englobe à la fois la production nationale et les partenariats commerciaux stratégiques pour une stratégie de sécurité alimentaire plus durable et plus résiliente.

Mots clés : Sécurité alimentaire, Autosuffisance, Flexibilité économique, Commerce, Substitution des importations

Jel Classification Codes : L53 ; L78 ; M00.

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I. Introduction :

Millions go hungry every day despite significant advancements in food production. This stark reality highlights the complex issue of food security, which goes beyond simple food availability.

Food security encompasses physical, economic, and social access to adequate, safe, and nutritious food for all people at all times. Achieving food security requires a multifaceted approach that addresses not only production but also distribution, affordability, and stability of the food supply.

This paper examines the potential benefits and drawbacks of self-sufficiency policies in relation to food security.

We argue that while achieving self-sufficiency in certain commodities can contribute to food security, a rigid focus on self-sufficiency at the expense of international trade can have unintended consequences. The paper concludes by advocating for a balanced approach to food security that leverages both domestic production and international trade.

I.1. The problem of research: The State of Algeria has enormous wealth that enables it to transform from an importing country to an exporter and a country producing its own food, based on this point of view, we pose the problem of our study as follows:

Can Algeria achieve its food security to protect consumers and achieve consumer confidence locally?

I.2. Research hypotheses: To answer the previous problem, we touched on the hypotheses of the research as follows:

Main hypothesis

Indeed, Algeria seeks to achieve food security to protect its consumers and gain the trust of customers.

Sub-hypotheses

- The reality of food security in Algeria is defined by several fluctuations and changes;

- Algeria has improved the Global Food Security Index;

I.3. The importance of the research: The importance of the study lies in knowing the role played by food security to achieve the stability of Algeria, the fluctuations it faced and the extent to which Algeria seeks to exploit the potential available to it by reviewing the various indicators that make it up.

I.4. Research objectives: The main objective of the research is to look at the changes in the food axis in Algeria,

- Adjust some basic concepts of research;
- Familiarize yourself with the reality of food security in Algeria;
- Identify the phases of fluctuation of basic products of the food sector;
- Reference to some key indicators in the food security sector of Algeria;

- Coming up with some suggestions related to Algerian food security.

I.5. Methodology and tools: To answer the problem at hand and to link and coordinate the elements of the study, we used the descriptive approach mixed with the analytical method. With the help of some previous studies related to the research topic.

I.6. Plan: Our study was divided into two axes The first axis: includes the theoretical aspect and focuses on the basics of food security, its types, and factors. The second axis was devoted to the description and analysis of the evolution of various basic foodstuffs in Algeria and its indicators.

II. The first axis: basics on food security

The State of Algeria is working to achieve food security and cover the shortage of food by resorting to imports to meet domestic demand, and this deficit represents a great danger for it, which increases its food dependence abroad.

II.1. The concept of food security: Many international organizations have presented a concept of food security, including:

II.1.1. World Food Summit : There is broad agreement that food security as defined by the World Food Summit exists when “all people, at all times, have physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for a healthy and active life” (F. A. O, 1996)

II.1.2. The Arab Organization for Agricultural Development defines it as: "The state produces as much food as it needs in a balanced economic manner, with the possibility of competing with foreign countries, while covering the needs of food types through import and achieving food stocks in anticipation of future conditions." (YAHY & YAHYAOU, 2023, P892)

II.1.3. The World Health Organization defines it as: "the standards necessary in production and storage processes to achieve food security and ensure consumer confidence". (ATAIF & BOUZID, 2016 , P145)

It consists of two axes

A. The first axis: the quantity and type of food required to achieve food security, whether locally or through resorting to imports.

B. The second axis: How to obtain food and its sources. (Nezaia & Tayeb, 2013, P68)

II.1.4. The concept of self-sufficiency and the food gap:

The concept of food self-sufficiency, defined as a community's ability to

produce all its food requirements locally, has become intertwined with the broader concept of food security. However, a focus solely on self-sufficiency can have unintended consequences, potentially hindering rather than supporting food security.

While achieving self-sufficiency in certain commodities can contribute to food security, it must be pursued within a framework of economic flexibility. This flexibility allows a country to capitalize on comparative advantages and engage in trade that benefits its overall food security. Conversely, a rigid pursuit of self-sufficiency, often characterized by import substitution policies regardless of economic viability, can lead to inefficiencies and ultimately undermine food security. (Guerrab, 2015, P58)

In essence, food security is not simply about domestic production but encompasses the ability of a nation to access a stable and affordable food supply, even if that requires international trade.

$$\text{Total consumption} = (\text{national production} \div \text{self-sufficiency}) \times 100$$

The food gap means the difference between what we can produce of goods and food, and what is enough basic needs to provide food for the total population, and the food gap may fluctuate from one year due to the change in plant and livestock agricultural production, the volume of consumption and global price fluctuations for food commodities. (Hafnaoui, 2023, P16)

The nutritional gap is calculated by the following relationship:

$$\text{Actual food gap} = \text{ratio of food imports/value of merchandise exports.}$$

Its percentage is determined by:

$$\text{Self-sufficiency ratio} = 1 - \text{Food gap ratio}$$

II.2. Types of food security: We distinguish between two types:

II.2.1. Absolute food security: equivalent to (self-sufficiency): production with or above domestic demand and this situation is difficult to achieve.

II.2.2. Relative food security: The ability of a state to provide for the needs of its society wholly or partly at a regular pace. (Doufi & Ouair, 2021, P68)

II.3. Food security factors: There are two types of factors that control food security and safety:

II.3.1. Internal factors: These are local conditions that are considered state property, such as production potential, real income in society and population size.

II.3.2. External factors: These are related to the circumstances surrounding the country such as foreign exchange resources, the availability of

food and raw materials for production in world markets and facilities granted by international bodies. (MOURAD, 2010, P47)

III. The second axis: Description and analysis of the evolution of various basic foodstuffs in Algeria and its indicators.

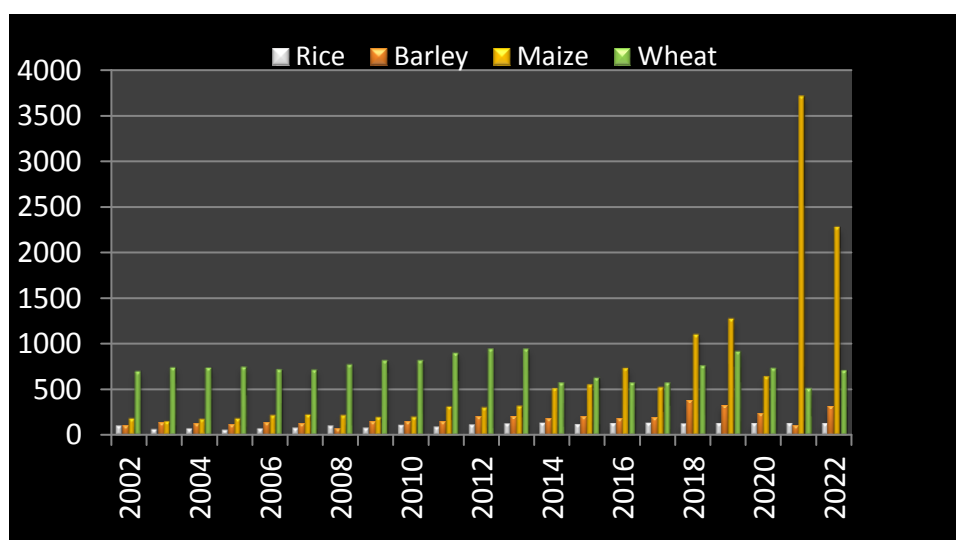
In this axis, data related to food security in Algeria are presented and analyzed, to form a look at the reality of the phenomenon under study in Algeria, and then the analysis procedures to determine the development and whether there is an improvement in the food security index in Algeria.

III.1. Movement of basic foodstuffs in Algeria:

This movement can be highlighted by presenting the following data:

Fig.(01): Evolution of cereal availability during the period (2002-2022)

(thousand tons)



Source: (MEKAID & BENAAYAD, 2017, P110), (FAOSTAT, 2024)

The figure above shows the availability of different cereals in Algeria from 2002 to 2022, measured in thousand tons. Here's a brief analysis:

Rice: The availability of rice has been relatively stable, with minor fluctuations over the years, maintaining around 120 thousand tons towards the end of the period.

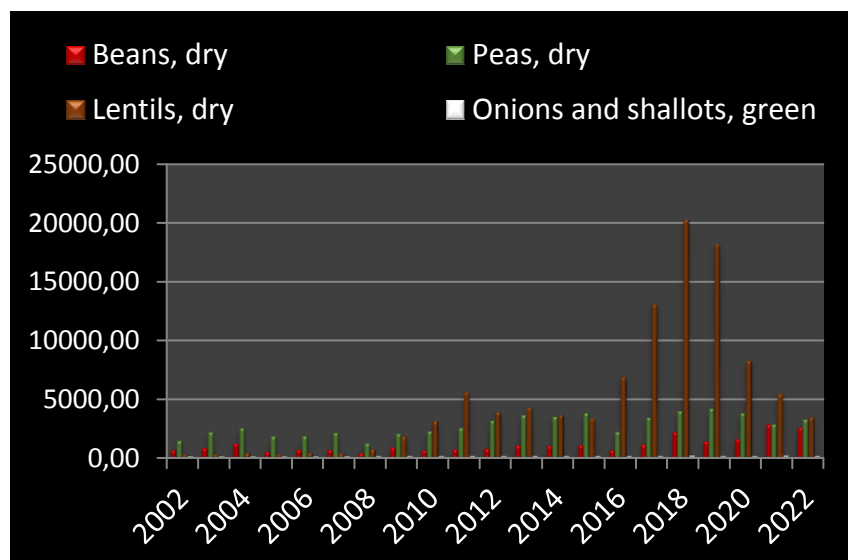
Barley: Barley availability has seen more significant fluctuations, with a notable peak in 2018 at 381.3 thousand tons, followed by a decrease and then another rise to 311.7 thousand tons in 2022.

Maize: The trend for maize shows a general increase over the period, with a sharp rise to 3712 thousand tons in 2021, before a decrease to 2282 thousand tons in 2022.

Wheat: Wheat started with the highest availability in 2002 at 700.3 thousand tons, experienced variability, and had a notable decrease in 2021 to 513.5 thousand tons, followed by a recovery in 2022 to 710.5 thousand tons.

This data reflects the changes in cereal production or availability in Algeria over two decades, which could be influenced by factors such as agricultural practices, policy changes, market demand, and climatic conditions. It's important for planning and ensuring food security.

Fig.(02): Evolution of the availability of vegetables during the period (2002-2022) (thousand tons)



Source: (FAOSTAT, 2024)

The above figure shows the data on the availability of vegetables in Algeria from 2002 to 2022 shows the following trends:

Beans, Dry: The availability has generally increased from 659 thousand tons in 2002 to 2508 thousand tons in 2022, with some fluctuations.

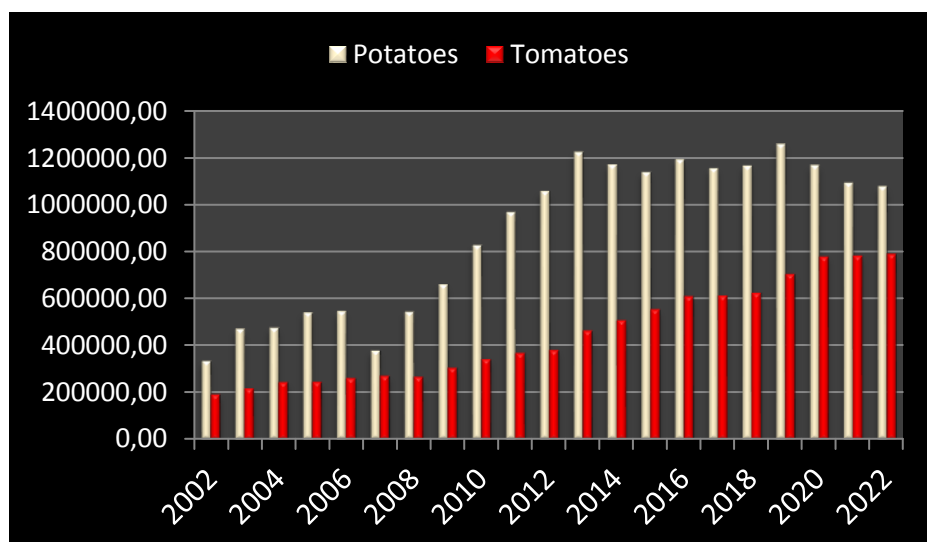
Peas, Dry: There is an overall upward trend from 1461 thousand tons in 2002 to 3224 thousand tons in 2022, despite some years of decline.

Lentils, Dry: A significant increase is observed, starting at 297 thousand tons in 2002 and reaching a peak of 20263 thousand tons in 2018, followed by a decrease to 3469 thousand tons in 2022.

Onions and Shallots, Green: The availability has slightly increased from 113 thousand tons in 2002 to 160 thousand tons in 2022, with stable figures in most years.

These trends indicate a growing availability of these vegetables, which can be attributed to factors such as improved agricultural practices, increased demand, and possibly government policies aimed at enhancing food security. The sharp increase in lentil availability, in particular, suggests a significant expansion in its production or importation.

Fig.(03): Evolution the availability of Potatoes and Tomatoes during the period (2002-2022) (thousand tons)



Source: (FAOSTAT, 2024)

The above figure shows the data on the availability of potatoes and tomatoes in Algeria from 2002 to 2022 shows:

Potatoes: A significant increase from 333,725 tons in 2002 to a peak of 1,256,413 tons in 2019, followed by a slight decrease to 1,076,111 tons in 2022.

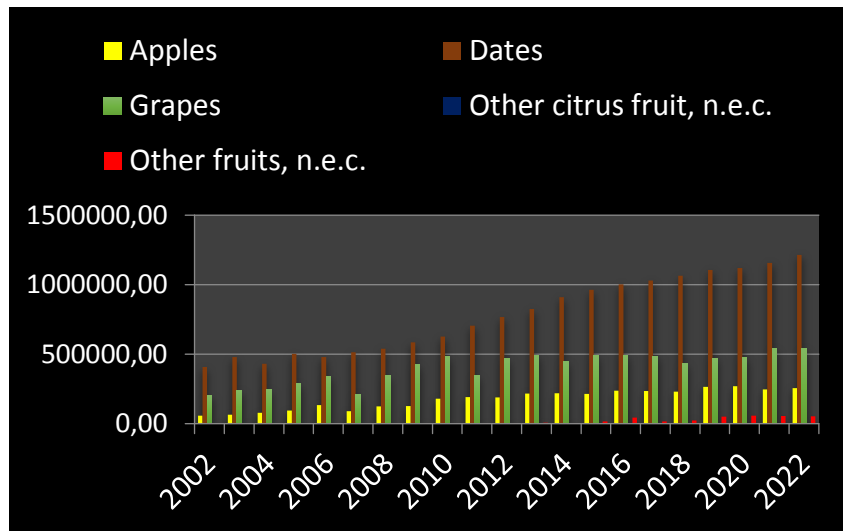
Tomatoes: A steady increase from 191,096 tons in 2002 to 791,146 tons in 2022, with the most notable growth occurring after 2012.

This trend indicates a substantial growth in the availability of these staple vegetables, which could reflect advancements in agricultural productivity,

changes in dietary patterns, or increased demand. The data suggests that Algeria has improved its capacity to produce these crops over the last two decades.

Fig.(04): Evolution of fruits available during the period (2002-2022)

(thousand tons)



Source: (MEKAID & BENAAYAD, 2017, P113), (FAOSTAT, 2024)

The above figure shows the data on the availability of various fruits in Algeria from 2002 to 2022 shows the following trends:

Apples: A gradual increase from 57,130 tons in 2002 to 254,811 tons in 2022.

Dates: A significant rise from 406,745 tons in 2002 to 1,212,576 tons in 2022.

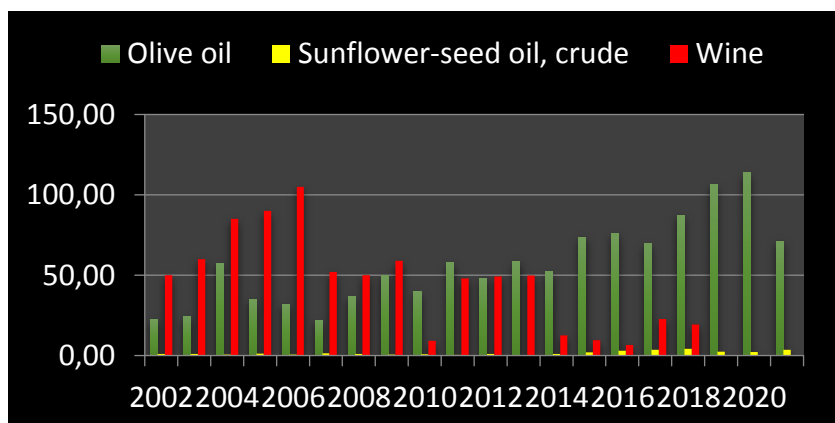
Grapes: Fluctuations observed, with an increase from 200,827 tons in 2002 to 537,481 tons in 2022.

Other Citrus Fruits: Relatively stable, with minor variations around 161 to 251 tons.

Other Fruits: Marked increase from 2,721 tons in 2002 to 52,004 tons in 2022.

These trends indicate a substantial growth in the availability of dates and other fruits, while apples and grapes have also seen increases but with some yearly fluctuations. The stability in other citrus fruits suggests consistent production or import levels over the years. The marked increase in the availability of other fruits could reflect diversification in agriculture or changes in consumer preferences. Overall, the data points to a positive trend in fruit availability in Algeria.

Fig.(05): Evolution of industrial crops available during the period (2002-2021)
(thousand tons)



Source: (FAOSTAT, 2024)

The figure shows the evolution of the production of three industrial crops in Algeria: Olive oil, Sunflower seed oil, and Wine, in thousand tons, over 20 years (from 2002 to 2021).

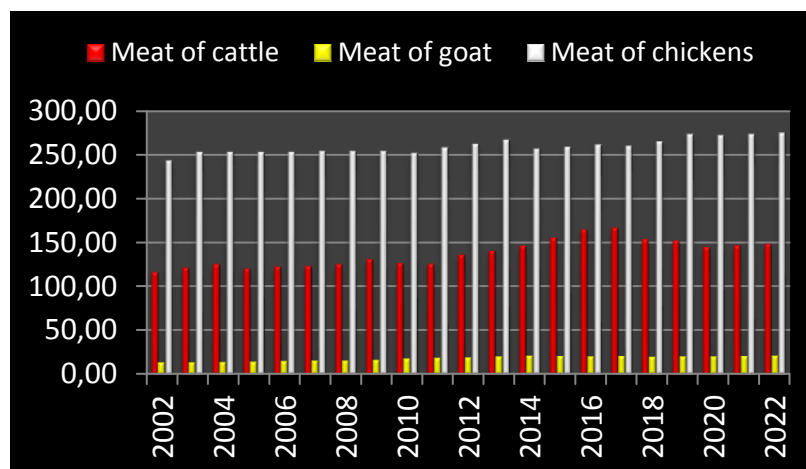
Over the entire period, Olive oil production shows the most significant increase, going from 22,50 thousand tons in 2002 to 113,60 thousand tons in 2021. This represents an increase of more than 400%.

Sunflower seed oil production fluctuates more throughout the period. It starts at 0.95 thousand tons in 2002, reaches a high of 1.28 thousand tons in 2007, and then ends at 3.60 thousand tons in 2021. This represents an increase of around 270%.

Wine production shows a different pattern than the other two crops. It starts at 50.00 thousand tons in 2002, reaches a high of 105.00 thousand tons in 2006, and then decreases to 71.00 thousand tons in 2021. This represents an increase of around 42% followed by a decrease of 32%.

Overall, the data suggests that the production of Olive oil and Sunflower seed oil has increased in Algeria over the period from 2002 to 2021. Wine production increased initially but then decreased.

Fig.(06): Evolution of the availability of animal products during the period (2002-2022)
(thousand tons)



Source: (FAOSTAT, 2024)

The figure above the table shows the availability of three types of meat in Algeria: Meat of cattle, Meat of goat, and Meat of chickens, in thousand tons, over 21 years (from 2002 to 2022).

Over the entire period, the availability of all three types of meat has increased.

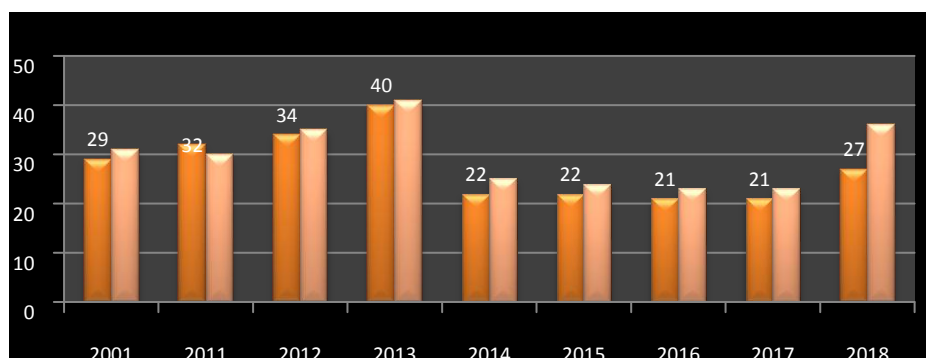
Meat of cattle shows the most significant increase, going from 116.00 thousand tons in 2002 to 148.12 thousand tons in 2022. This represents an increase of around 27%.

Meat of goat availability increased from 12.35 thousand tons in 2002 to 19.24 thousand tons in 2022. This represents an increase of around 56%.

Chicken meat availability shows a similar increase to goat meat. It increased from 243.00 thousand tons in 2002 to 274.86 thousand tons in 2022. This represents an increase of around 13%.

Overall, the data suggests that the availability of all three types of meat in Algeria has increased between 2002 and 2022. Meat of cattle shows the smallest increase, while Chicken meat shows the largest increase.

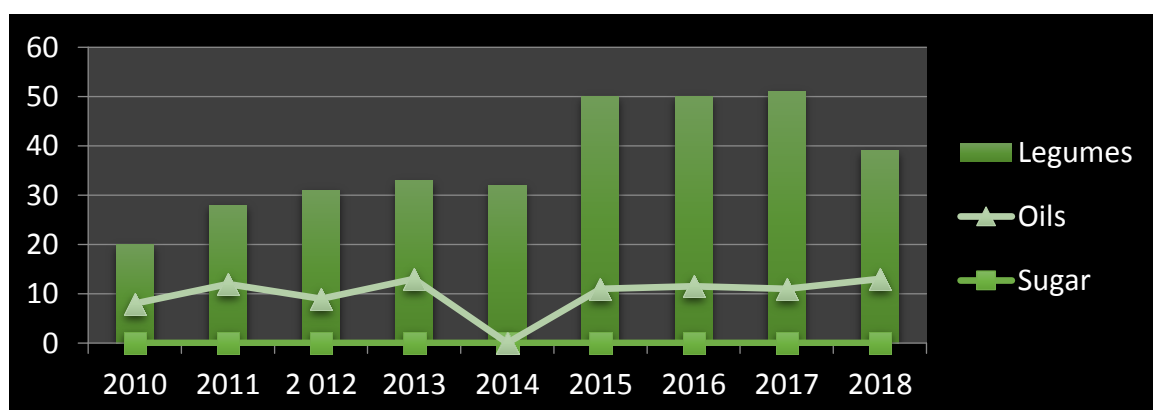
Fig.(07): Grain self-sufficiency (%).



Source: (Mohammedi & Hafsaoui, 2023, 180)

The figure data shows a decrease in the self-sufficiency rates for cereals and wheat, which is the first basic material for consumption in the food sector in Algeria, we notice a fluctuation for both wheat and cereals from year to year, so self-sufficiency for cereals increased from 2001 to 2013, where the percentage increased from (29%) to (40%) and then witnessed a clear decline confined between (22% and 21%) from 2014 to 2017, to rise again to (27%) in 2018. Wheat was not differentiated from it in the movement, which was estimated at the highest percentage in 2013 at (41%) and ear (23%) in 2016 and 2017. All this explains that Algeria depends on imports of cereals or wheat by more than (50%) to meet individual needs, especially with the growing population.

Fig.(08): Self-sufficiency of legumes, oils, sugar (%).

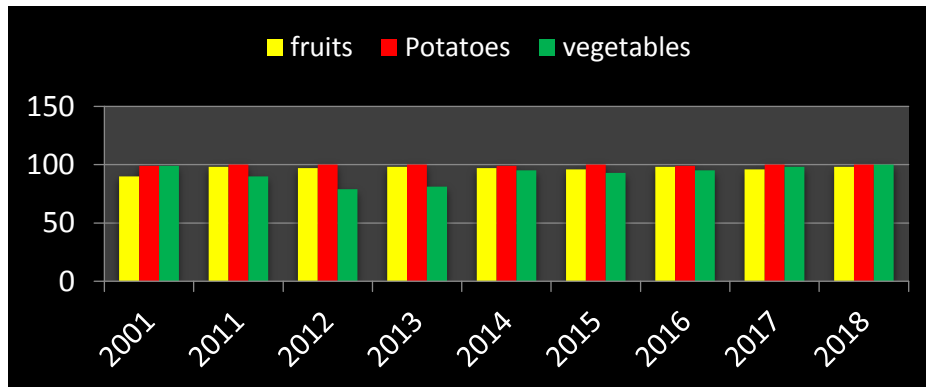


Source: (Mohammedi & Hafsaoui, 2023, P182)

Legumes are also considered one of the basic types of food for the Algerian individual, and the figure shows their development from 2001 to 2018, so my ears knew a value in 2001 (19%), which is a very low value compared to their local consumption, and then increased slightly in the following years, until it witnessed

a qualitative leap in 2015 and continued to 2017 with (51%) as the highest percentage, then decreased to (39%)). As for oils, they witnessed an almost total deficit, especially in 2014, and this is reflected in the trade balance, which records an increase in imports of oils as a staple in Algerian cooking. About sugar, we note a total deficit of self-sufficiency in the country.

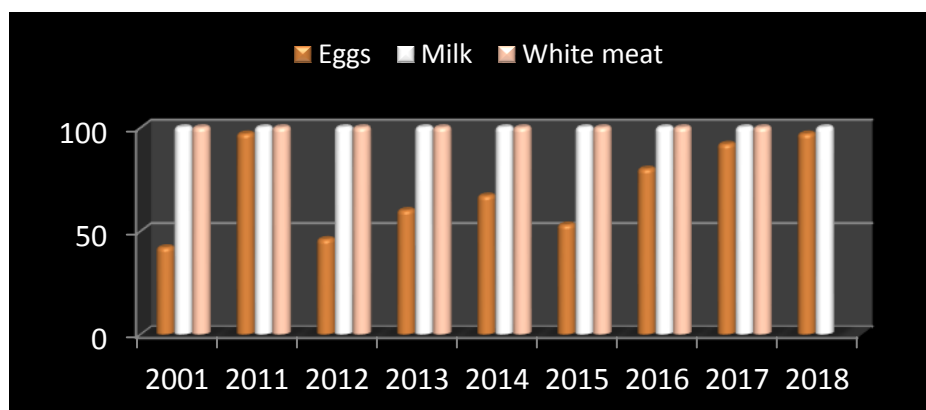
Fig.(09): Self-sufficiency of fruits, vegetables and potatoes (%).



Source: (Mohammedi & Hafsaoui, 2023, P186)

We note from the figure that Algeria has achieved self-sufficiency in the various materials mentioned, including those that have achieved (100%), which shows the interest of the authorities in them, the support of farmers and specialists in their production, and meeting local demand without the need for imports.

Fig.(10): Self-sufficiency of eggs, white meat, milk (%).

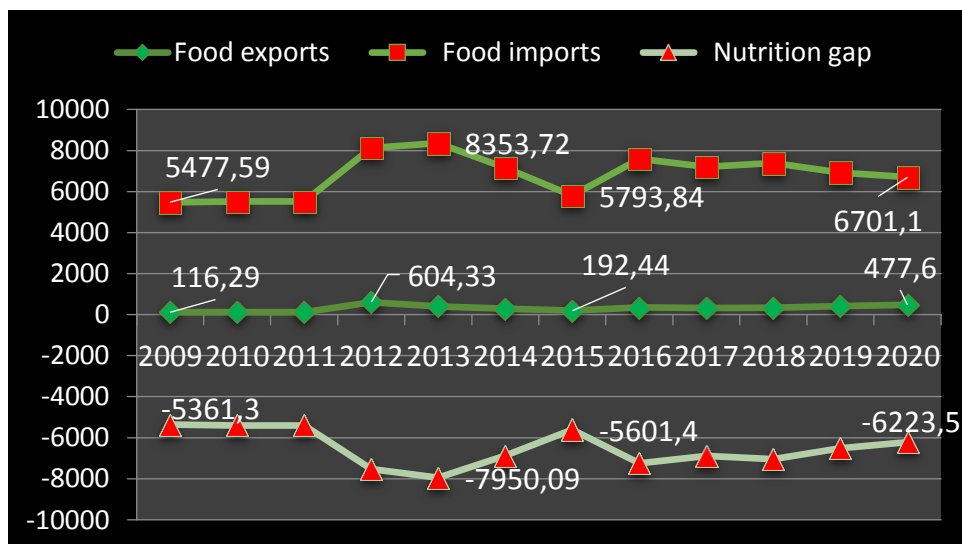


Source: (Mohammedi & Hafsaoui, 2023,190)

The figure shows us that both white meat and eggs achieved self-sufficiency,

which did not fall below (100%) in most years, and therefore (the food gap was equal to zero), similar to milk, which fluctuated in some years, where it witnessed a remarkable increase in 2011 by (98%) and then declined significantly in the following year, where it began to increase gradually until 2014 to decline again to (45%), and then escalated to reach (97%).

Fig.(11): Evolution of exports, imports, and food gap

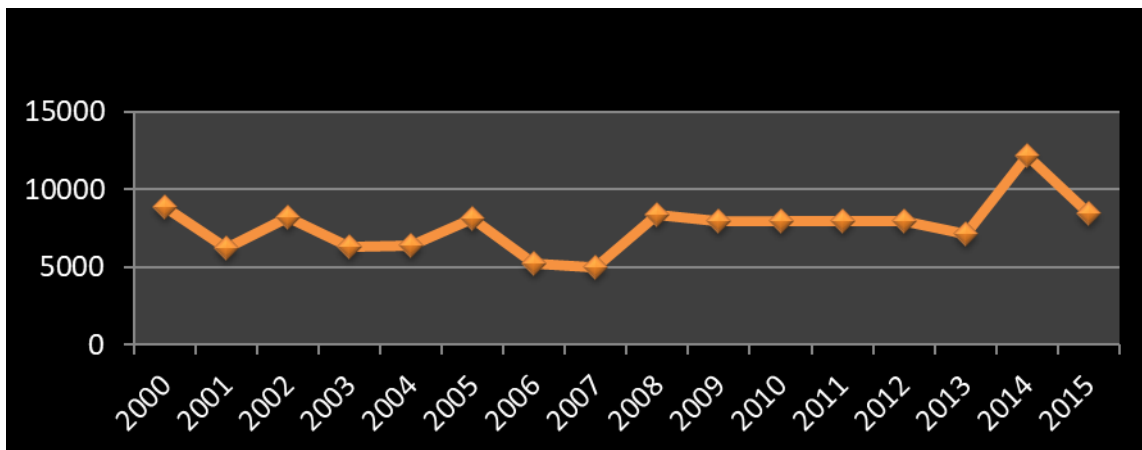


Source: (Laalama & Bennoune, 2023, P212)

The above figure shows us the direct relationship between total exports and imports in Algeria, as for exports, we notice a sharp decrease compared to the number of imports, so it witnessed in the first three years relative stability estimated at (116.29 MDA), then increased in 2012 by a remarkable percentage estimated at (604.33 MDA), which explains the improvement of the internal conditions of the country supporting the export process, which is the highest percentage compared to all years, then exports gradually decline again until 2015, and then escalate to the last estimated year B (477.6 MDA). As for the total imports, which we note are high in all years, all of which exceed (5000 MDA), especially in 2012 and 2013, which were estimated at more than (8000 MDA).

As for the food gap, its overall was negative, which explains the deficit of the trade balance of the nutrition sector, which concludes that Algeria is very dependent on imports.

Fig.(12): Evolution of cereal imports (thousand tons)



Source: (Benaissa & Kabiri, 2018, P141)

The above figure shows the development of cereal imports fluctuated from year to year, declining in 2001 to increasing in the following year and then continuing to decline until 2005 due to the high domestic production of cereals, similar to the years from 2008 to 2012, so it was stable, reflecting the progress of its domestic production at the same pace until 2013 decreased slightly, to witness a significant increase in 2014, which explains the decline in the amount of production and Algeria's need for imports to cover the gap observed above and meet the per capita need for cereals to secure lunch, and then declined. In 2015, it corresponds to its rise locally. We conclude that Algeria's imports are high despite the conditions that can combat cereal imports and reduce them to the lowest possible percentage, or even eliminate them and achieve surplus production, especially wheat and barley.

III.2. Some basic indicators in Algeria

Table (01): Ratio of some economic indicators in Algeria (2010-2018)

	2010	2011	2012	2013	2014	2015	2016	2017	2018
Growth rate (volume) of domestic raw production %	3.3	2.5	3.2	2.7	3.7	3.7	3.7	1.6	0.9
Growth rate (volume) of GDP%	3.6	2.9	3.4	2.8	3.8	3.7	3.3	1.4	1.2
The annual growth rate of the indicative figure for consumption prices %	3.9	4.5	8.9	3.3	2.9	4.8	6.4	5.6	4.3

Source: (ONS, 2021)

We note from the data of the table a sharp decline in the country's gross domestic production, which almost reached zero in 2018, as well as the growth rate of GDP, where the lowest rate reached (1.2%) in 2018, about the annual growth rate of the consumer price index, the highest rate was (8.9%) and the earliest (2.9%).

Table (02): The general food price index in Algeria during the period (2001-2021)

Year	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Indicator	97.7	102	106.7	111.6	112.1	115.1	122.9	132.1	144.5	150.6	159.5
Year	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	
Indicator	183.9	190.2	193.9	200.9	207.4	217.7	221.5	222.9	223.4	242.7	

Source: (Messoudi & Azaoui, 2023, P156) (Guettal, 2016, P53)

From (2001 to 2021), Algeria witnessed an increase in food prices through the intervention of the state in subsidizing basic foodstuffs of wide consumption such as (cereals, especially wheat and milk) to control their prices, while the rest of the materials are controlled by private suppliers.

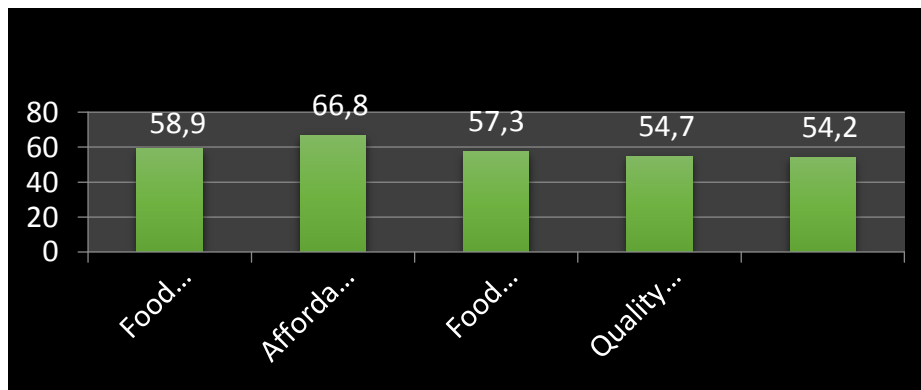
Table (03): Index of food consumed in Algeria (2010-2017)

Year	2010 - 2015	2016	2017
Indicator	168.63	204.46	196.61

Source: (Aimar & Bouchewit, 2019, P1035)

The above table indicates the increase in food consumed in the country in 2016, while in 2017 it decreased by 69.61, which is directly related to the population census and other parties contributing to consumption.

Fig.(13): Global Food Security Index in Algeria (2022) Peace (0-100%)



Source: (Mohammedi & Hafsaoui, 2023,191)

We can see through the graph that most of the results are average, except for food affordability, which represented a good percentage (66.8%), meaning that the competent authority could not afford food costs (33.2%), while the rest of the variables were (54.2% and 58.9%), meaning that the basic indicators of global nutrition security were in Algeria to a medium degree, indicating improvement and moving away from the threat that could affect food security in the country for the year 2022. Below we will explain more details of the dimensions mentioned in the graph.

Table (04): Global Food Security Index in Algeria (2022)

Food security environment							
Affordability		Food availability		Quality & Safety		Sustainability and adaptation	
Change in average costs Food costs	48.5	Access to Agricultural Inputs	49	Dietary diversity	49.1	Risk Exposure	76.2
		Research & Development Agricultural	43.1			Water	33.7
Proportion of the population under Global poverty line	96.2	Infrastructure For the farm	54.1	Nutritional Standards	0	earth	64.7
		Volatility of agricultural production	78.2			oceans, rivers, Lakes	26.6
Income	63.1	Food loss	58.2	Nutrient	64.7	Political	28.5

Adjusted Index Inequality		Infrastructure For the supply chain	34.4	availability Subtleties		commitment Adapt	
Products Trading Agricultural	50	Supply adequacy	100	Protein quality	67.3		
		Political and social barriers	52.5				
Safety Networking Software Food	79.3	Policy Commitments Food Security	52.5	Food Safety	92.4	Risk Management calamities	100

Source: (Mohammedi & Hafsaoui, 2023,192)

Through the detailed details of the variables of global food security in Algeria mentioned above, we note the following:

- **Affordability:** Algeria achieved a very good score in the proportion of the population (96.2%) below the global poverty line, a good percentage for food safety net programs, moderate for inequality-adjusted incomes, and the agricultural trade index was weak (50%), although Algeria can excel in this area due to its wealth. Finally, these results point to the ability of Algeria's state budget to afford food.

- **Food availability:** The supply adequacy index occupied the full percentage, which highlights that Algeria can supply 100% to ensure the provision of food inside the country or the provision of raw materials for local production, then in second place was the index of agricultural production volatility (78.2%) with a good degree, and this is due to the conditions that agricultural production is going through, especially climate variability, which is a key factor for the success of the agricultural sector, then the index of food loss (food waste) with a moderate degree (58.2%) and it is better to reduce it to less A possible score, while the rest of the indicators were at a low level.

- **Quality and safety:** They are the two main factors that the consumer is looking for, so in the year 2022, we found food safety inside the country with a very good score of (92.4%), meaning that Algeria is working hard to manage the risks of the sector and secure food peace to gain the confidence of its people and achieve sustainable development, and for micronutrients such as (minerals, proteins) and protein quality, they obtained a moderate degree, meaning that these two indicators are stable and away from danger, while the food standards index was unfortunately to a non-existent degree, meaning that Algeria does not have nor A certificate proving the safety of its food internationally.

• **Sustainability and adaptation:** Algeria was able in 2022 to prove its ability to withstand and manage disasters in full, although it was at risk by a value of (76.2%) according to the data of the table, about natural properties, it sits on both land and water types, meaning that the country of Algeria has enough to adapt to its diverse and volatile vital systems and exploit them as much as possible in production and collection, while its political commitment to adaptation was very weak, meaning that the state and the competent parties are very weak in control and management.

Table (05): Food deficit index in Algeria (2007-2017) in million dollars

Years	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Indicator	4862	7675	5780	5722	9448	8670	9170	10682	9075	7896	8089

Source: (Bouchewit & Benzeghda, 2021, P164)

As for the above indicator, we note a continuous increase in the food deficit from year to year, reaching a maximum of 10,682 in 2014, which explains the price fluctuation in the dominant basic foodstuffs, and its link to production and consumption on the one hand and imports on the other hand, and it is unfortunate to see a country that possesses natural resources that sits on a vast and diverse area that can be the queen of many food products and achieve the security that the consumer is looking for on the one hand, and achieve the surplus and export them to cover the costs of imported materials that do not You can produce them locally on the other hand.

Therefore, the following aspects can be noted regarding the evolution of food security in Algeria (2021-2022):

- Ranked fifth in the Arab world in the second quarter of 2022;
- The contribution of the agricultural sector by (12.3%) to the GDP in 2021, and an increase in its value by (38%) in 2022;
- their capacity to produce cereals and reduce imports;
- The ability of wheat to meet the needs of the people of the nation;
- Increased cereal production estimated at 48 million quintals, 20% during the cultivation season (2020/2021);
- Increase the production of dry pulses (20%);
- increased potato production (30%);
- Increasing the production of red and white meat and milk, which allowed to cover local needs by (75%). Source: (Deep Knowledge Analytics, 2024)

IV. Results and discussion

IV.1. Results

- Although Algeria has achieved an improvement in its global and Arab position, it still lacks the required level in some sectors;
- Algeria pays the bill for grains and wheat in hard currency, which increases the burden of the trade balance, especially since their prices are constantly increasing in the world markets on the one hand;
- The increasing rise in cereal imports means that hard currency is increasingly paid by hydrocarbon liquidity;
- Payment of the price of cereals from hydrocarbons, which is declining affecting the national economy;
- Domestic agricultural consumption outstrips domestic production, thus increasing imports and exacerbating the food gap;
- Algeria resorts to imports to meet the deficit in the production of oil and sugar;
- The various nutrition sectors in Algeria are experiencing different fluctuations from year to year.

IV.2. discussion

- The property of the country must be protected from natural and industrial hazards;
- Use advanced smart agricultural techniques to avoid climate risks and reduce the number of imports;
- Pay more attention to production in the agricultural sector to increase the contribution to foreign GDP and overcome the trade balance deficit;
- Intensify control over domestic prices in the markets.

V. Conclusion:

Although Algeria has natural assets, especially arable land, as well as human and financial resources, which can be ranked among the first countries in the world when exploited in the right way, it still suffers from the problem of shortage of some foodstuffs, and this problem focuses especially on the fact that strategic food commodities are widely consumed by Algerian citizens, in particular: milk and its derivatives, oils and sugar. where it suffers from a large gap between national production and total needs due to the failure to keep pace with the growth in agricultural production with the rates of demand for food, in

light of the growing population and the migration of agricultural labor in search of a better standard of living in cities.

As a result of this situation, Algeria is one of the largest importers of food from the world food markets, which is directly affected by the fluctuations in the prices of these basic foodstuffs globally, in which Algeria achieves low self-sufficiency rates, leaving many serious effects on the economic and social levels.

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