

# Agricultural and Agri-food Exports: Where Does Algeria Stand?

Exportations agricoles et agroalimentaires : Où en est l'Algérie ?

Auteur 1 : MELLAB Kahina.

**MELLAB Kahina**, (CREAD, Maitre de recherche classe -B-) Research Center in Applied Economics for Development

<u>Déclaration de divulgation :</u> L'auteur n'a pas connaissance de quelconque financement qui pourrait affecter l'objectivité de cette étude.

Conflit d'intérêts : L'auteur ne signale aucun conflit d'intérêts.

<u>Pour citer cet article :</u> MELLAB .K (2025) « Agricultural and Agri-food Exports: Where Does Algeria Stand? », African Scientific Journal « Volume 03, Num 28 » pp: 1477 – 1508.

Date de soumission : Janvier 2025

Date de publication : Février 2025



DOI : 10.5281/zenodo.15075401 Copyright © 2025 – ASJ





African Scientific Journal ISSN : 2658-9311 Vol : 03, Numéro 28, Février 2025

#### Résumé

L'agriculture et les produits agroalimentaires occupent une place significative dans l'économie algérienne, bien que cette part ait diminué en raison de la prééminence des exportations d'hydrocarbures. En 2023, les exportations agricoles représentent environ 5 à 7 % de la valeur totale des exportations du pays. Les principales exportations agricoles algériennes comprennent l'huile d'olive, les agrumes, les dattes. La France reste le premier marché d'exportation, recevant environ 30 % des exportations agricoles algériennes, suivie par l'Italie et l'Espagne.

Cet article analyse la place de l'agriculture dans les exportations algériennes, identifie les principaux marchés d'exportation et évalue les politiques mises en place pour renforcer la compétitivité du secteur agricole. L'approche méthodologique repose sur une analyse quantitative des statistiques récentes relatives à l'agriculture, telles que la part du secteur dans le PIB, son impact sur l'emploi et la répartition des exportations agricoles par produit et par pays. Des données secondaires provenant de rapports institutionnels et d'organisations internationales ont été utilisées pour identifier les tendances et défis majeurs. Par ailleurs, l'étude inclut une analyse qualitative des politiques agricoles en cours, en se concentrant sur les stratégies visant à améliorer l'efficience du secteur et à surmonter les obstacles liés à l'utilisation de techniques agricoles obsolètes, la pénurie d'eau et les effets du changement climatique. Enfin, des recommandations sont proposées pour augmenter la part des exportations agricoles de l'Algérie. Celles-ci incluent la valorisation des produits agricoles nationaux, l'intégration du secteur dans les chaînes de valeur mondiales et l'adoption de pratiques agricoles durables, afin de renforcer la compétitivité et assurer une croissance soutenue du secteur.

Mots clés : exportations agricoles, avantage comparatif, secteur agroalimentaire

#### Introduction

Agriculture has long been a cornerstone of Algeria's economy, providing both sustenance and income to a significant portion of the population. The steady decline in the share of agricultural products in Algeria's total exports can be attributed to the dominance of oil and natural gas exports, which have overshadowed other sectors of the economy. As Algeria's oil and gas industry became the primary source of revenue, the agricultural sector received less investment and attention. This shift in focus was compounded by challenges such as limited infrastructure, water scarcity, and climate issues, which hindered agricultural productivity. Additionally, the global demand for oil and gas has driven up exports of these resources, further reducing the emphasis on agricultural exports. As a result, despite agriculture's historical significance, its contribution to Algeria's total exports has steadily declined.

This article aims to examine the trends and challenges of Algeria's agricultural exports, analyzing the factors that have shaped its current position in global markets. By studying key export destinations, growth patterns, and the structure of Algeria's agricultural export portfolio, the research highlights the importance of agriculture as a driver of economic diversification and structural transformation in the export sector. Agriculture plays a key role in diversifying Algeria's export base beyond hydrocarbons and in facilitating the structural transformation of the economy by adding value through agro-processing and increasing the competitiveness of agricultural products on the global stage. Export destinations, mainly focused on traditional markets such as France and Italy, are crucial for understanding the potential for increased trade. However, a critical question arises: Can Algeria realistically consider exporting agricultural and agro-food products given that it lacks significant comparative advantages in this sector and is not even achieving partial self-sufficiency in essential food products, which are crucial for its food security? Statistics on export volumes, market shares, and growth trends can offer valuable insights into this issue. For instance, Algeria's agricultural exports accounted for only about 6% of total exports in 2022, with food products constituting a small share. These figures suggest that Algeria faces significant hurdles in boosting agricultural exports, particularly considering its current challenges in achieving food security.

Additionally, this article addresses the challenges Algeria faces in the agricultural export sector, including climate change, limited infrastructure, and the need for modernization. It also explores future opportunities in emerging markets and innovative agricultural practices. This analysis highlights Algeria's potential to reposition itself as a key player in global agricultural trade, contributing to long-term economic resilience and sustainable growth.

By integrating relevant statistical data on export volumes, market shares, and growth trends, this article aims to provide a comprehensive understanding of Algeria's agricultural export landscape and offer insights into the steps necessary to strengthen its global presence, despite the internal and structural challenges.

The central issue of this study lies in the following question: How can Algeria diversify its agricultural and agro-food exports, given the significant challenges it faces in terms of food self-sufficiency, competitiveness in the agricultural sector, and limited infrastructure? In other words, this research explores Algeria's ability to develop an effective export strategy in a sector where it does not have clear comparative advantages, while also addressing its objectives of food security and rural development.

The aim of this study is to understand how Algerian agricultural products can become a driver of economic diversification, in a context where agriculture still represents a marginal share of total exports. Through an analysis of export trends, the structure of exported products, and their main destination markets, this research seeks to identify opportunities and challenges related to agricultural exports in Algeria and assess the sector's potential for contributing to the structural transformation of the national economy.

The methodological choice for this study combines both quantitative and qualitative analyses, allowing for a comprehensive understanding of both factual data and the more complex dynamics affecting Algerian agriculture. On the one hand, a statistical analysis of export volumes, market shares, and growth trends will be used to quantify the evolution of agricultural exports and identify the sector's key directions. On the other hand, a qualitative analysis of agricultural policies and export strategies will provide deeper insights into the structural issues, particularly the challenges related to infrastructure, product competitiveness, and the impact of climate change.

The epistemological approach of this study aligns with a positivist perspective, focusing on the analysis of quantitative data to understand the underlying economic phenomena. This approach treats Algerian agricultural exports as measurable phenomena influenced by specific economic, political, and social factors. At the same time, an inductive reasoning process will be employed, where specific observations related to agricultural export trends will help formulate hypotheses about the key success factors or obstacles faced by the sector.

The reasoning adopted is systemic, aiming to understand how various factors (such as market access, competitiveness, agricultural product transformation, etc.) interact to shape Algeria's

export capabilities. This approach seeks to cross-reference economic data with qualitative analysis of public policies, providing practical recommendations for improving the performance of Algeria's agricultural and agro-food exports.

In summary, this study aims to be both analytical and pragmatic, not only describing the current state of agricultural exports but also identifying growth drivers and barriers to overcome in order to successfully diversify the economy through agriculture.

### 1. Theoretical Framework

To understand the role of agricultural products in Algeria's export economy, it is crucial to explore key theoretical perspectives in international trade, agricultural economics, and economic development. Several prominent theories can shed light on Algeria's agricultural export potential, as well as the challenges it faces.

David Ricardo, in his theory of comparative advantage (1817), argues that countries should specialize in the production of goods for which they have the lowest opportunity cost, and engage in trade with other nations to improve overall economic efficiency and welfare.

This theory suggests that Algeria could benefit from focusing on agricultural products where it holds a comparative advantage, such as olive oil, fruits, and cereals. Ricardo's theory has been foundational in understanding global trade patterns and the specialization of nations (Ricardo, 1817). Applying this theory to Algeria emphasizes the importance of leveraging natural agricultural advantages to boost exports and diversify trade.

Structural transformation is a concept with several definitions and interpretations in economic development theory. Generally, it refers to the process by which an economy shifts from being primarily agrarian to being more industrialized, with sectors such as services and manufacturing playing a larger role in the economy. Various scholars have offered differing views on this transition. However, for our purposes, we focus on the definition put forward by Lewis (1954). Lewis conceptualized structural transformation as a gradual shift in which a nation's labor force moves from agriculture to industry, and the agricultural sector, although it declines in relative importance, still remains crucial for employment and rural development. Lewis' framework is particularly relevant to Algeria, as it underscores the dual nature of the agricultural sector in the country. While oil and industrial sectors have grown substantially, agriculture continues to provide a livelihood for a significant portion of the population. By applying Lewis's model, we can understand how Algeria's agricultural sector should modernize

and become more productive to maintain its role in a changing economy and to contribute more significantly to exports.

The Global Value Chain (GVC) theory, developed by Gereffi and Korzeniewicz (1994), emphasizes the interconnectedness of global markets, where goods and services are produced in multiple stages across different regions. For Algeria, integrating into global agricultural value chains is key to boosting its export potential. By enhancing the value added to agricultural products through processing and meeting international standards, Algeria could increase its global share of agricultural exports (Gereffi & Korzeniewicz, 1994). This approach focuses on leveraging global production networks to access higher-value markets and diversify export goods.

The theory of sustainable development, as articulated by Sachs (2015), stresses the importance of environmental sustainability in economic growth. In the context of Algeria, sustainable agricultural practices are necessary to maintain long-term competitiveness in global markets. Sachs (2015) argues that sustainable development can be achieved through investments in climate resilience, technological innovation, and environmentally friendly practices. This theory suggests that Algeria's agricultural sector must adapt to climate change challenges and adopt sustainable practices to ensure its future role in global exports.

Endogenous growth theory, popularized by Romer (1990), posits that long-term economic growth is driven by internal factors such as innovation, human capital, and technological progress, rather than external factors alone. For Algeria, this theory suggests that investments in agricultural research, technology, and human capital are critical to boosting productivity and fostering innovation in agricultural exports. Romer (1990) argued that technological advances and skill development within the agricultural sector could lead to sustained growth, reducing dependence on external resources and enhancing Algeria's competitive edge in global markets. Dependency theory, developed by Frank (1967), argues that developing countries remain economically dependent on developed nations, often exporting raw materials and low-value goods while importing higher-value products. Algeria's agricultural exports could be vulnerable to this dynamic, as the country may face challenges in moving up the value chain and achieving higher export returns. Frank (1967) contended that dependency can be reduced by diversifying and adding value to exports, a challenge Algeria faces as it seeks to move from exporting raw agricultural products to more processed, value-added goods.

Additionally, incorporating theories related to export diversification and industrial upgrading can offer valuable insights. Algeria faces challenges in increasing the value-added share of its

agricultural exports and moving beyond raw product exports, especially as it aims to compete in global markets. By focusing on value-added products such as processed fruits, olive oil, and cereals, Algeria could reduce its dependency on raw agricultural exports and strengthen its market position.

These theoretical frameworks provide a lens through which the role of agricultural exports in Algeria's economic development can be understood. By integrating these theories, the article explores how Algeria can leverage its agricultural sector for export growth, navigate the challenges it faces, and position itself as a competitive player in the global agricultural market. These perspectives underscore the need for strategic investments in innovation, sustainability, and value addition to overcome existing obstacles and capitalize on emerging opportunities in agricultural exports.

**1.1.comparative assessment of agricultural policies and sectoral performance in Algeria** In Algeria, agriculture has undergone significant transformations over the decades, evolving from a focus on food self-sufficiency to a broader agenda that includes sector modernization and diversification. Initially, the country's agricultural policies aimed primarily at improving food security through domestic production of key commodities such as cereals, dairy, and meat. In the 1970s, large-scale land reclamation projects were initiated to increase production and reduce reliance on imports. Over time, these policies evolved to focus on sustainable agricultural practices, diversification of agricultural outputs, modernization of farming techniques, and better water resource management. Recent initiatives, such as the National Agricultural Development Plan (PNDA) and the establishment of Agricultural Development Zones (ZDA), have aimed to improve agricultural productivity, with a particular emphasis on high-value crops such as fruits and vegetables, more efficient irrigation systems, and the adoption of modern farming techniques.

The Algerian government has also provided direct financial support for modernization projects through various incentive programs. These include subsidies for agricultural inputs like seeds, fertilizers, fuel, and irrigation costs. Low-interest loans have been offered to farmers for modernization efforts, while tax incentives have been introduced for private investors in the agricultural sector. Additionally, the state has supported infrastructure projects, such as improving transportation networks for agricultural goods, and investing in rural development through better roads, energy, and water supplies.

African Scientific Journal ISSN : 2658-9311 Vol : 03, Numéro 28, Février 2025

International cooperation has played a pivotal role in supporting Algeria's agricultural reforms, with organizations such as the African Development Bank (AfDB), the European Union (EU), and the United Nations Food and Agriculture Organization (FAO) providing technical assistance and financial support for projects related to water management, land reclamation, and rural development. For example, the AfDB financed irrigation and water management projects, addressing Algeria's water scarcity, with an allocation of \$200 million between 2020 and 2023. The EU has supported agricultural reforms in line with European standards, contributing €100 million for rural development and agricultural modernization projects between 2019 and 2022. The FAO has provided approximately \$50 million in technical support for sustainable land management and rural livelihood improvements from 2018 to 2022.

By 2022, Algeria's food imports remained significant, totaling around \$11 billion, despite efforts to increase domestic production. Cereal production in 2021 reached approximately 4.5 million tons, still falling short of the country's needs, with imports covering over 50% of national cereal requirements. International collaborations have intensified in recent years, particularly with the United Nations Economic Commission for Africa (ECA), which has contributed both technical expertise and funding to modernize Algeria's agricultural sector. These efforts focused on improving resilience to climate change, enhancing infrastructure, and promoting innovative technologies to boost productivity. However, despite these advances, Algeria continues to face persistent challenges such as land degradation, outdated farming techniques, and ongoing reliance on food imports.

When comparing Algeria's agricultural policies with those of its neighboring countries like Morocco, Tunisia, and Libya, notable differences emerge. Morocco, for instance, has implemented a comprehensive strategy called the "Green Morocco Plan," which focuses on modernizing agriculture, improving water management, and expanding high-value crop production. As a result, Morocco has been more successful in reducing food imports and has achieved better agricultural output in certain sectors, such as fruits and vegetables. In contrast, Algeria remains heavily dependent on imports for cereals and dairy products. Tunisia also shares agricultural challenges with Algeria, including water scarcity and soil degradation, but its agricultural policies have focused more on small-scale family farms and organic farming practices. Tunisia has also made strides in integrating its agricultural sector with European markets through trade agreements with the European Union, something Algeria has struggled with due to slower reforms and modernization. Libya, facing political instability, has been less successful in implementing long-term agricultural reforms. Like Algeria, Libya is highly dependent on food imports but has fewer resources dedicated to modernizing the sector or addressing sustainability challenges.

In summary, while Algeria has made significant progress in its agricultural policies, particularly with government support through subsidies and international cooperation, it still faces the major challenge of food import dependence. The country has a long way to go in diversifying its agricultural production and integrating more fully with regional and international markets. The focus on modernization and water management is shared across the region, but Algeria continues to face structural issues within its agricultural system that hinder its ability to achieve full food self-sufficiency.

## 2. Importance of the Agri-food Sector in Algeria

The Algerian economy has undergone significant transformations over the past two decades, yet it remains heavily reliant on extractive sectors, particularly hydrocarbons, despite efforts to diversify. Analyzing the economic data, it is evident that the **agriculture sector's contribution** to GDP has steadily declined, reflecting growing urbanization and shifting economic priorities. However, agriculture remains a strategic sector, particularly for rural employment and food security, yet it faces structural challenges such as underinvestment, outdated practices, and inefficient management of natural resources.





#### Source. WDI

The Algerian economy has undergone significant transformations over the past two decades, yet it remains heavily reliant on extractive sectors, particularly hydrocarbons, despite efforts to diversify. Analyzing the economic data, it is evident that the **agriculture sector's contribution** to GDP has steadily declined, reflecting growing urbanization and shifting economic priorities. However, agriculture remains a strategic sector, particularly for rural employment and food security, yet it faces structural challenges such as underinvestment, outdated practices, and inefficient management of natural resources.

The **services sector** has emerged as the dominant force in Algeria's economy, representing over 50% of GDP since 2015. This growth can be attributed to the expansion of public, financial, and commercial services, driven by rapid urbanization and the development of the private sector, particularly in major cities such as Algiers. However, the growth of services raises questions about the sustainability of this model, as it relies heavily on low value-added activities and continued dependence on public revenues funded by hydrocarbons.

In contrast, the **industrial sector** has faced stagnation, particularly since 2014, due to falling oil and gas prices and structural barriers such as bureaucracy, a challenging business environment, and inadequate infrastructure. **Manufacturing**, for example, remains underdeveloped, contributing little to GDP, highlighting the lack of industrial diversification and innovation. Algeria continues to depend heavily on imports, particularly manufactured goods, exacerbating its trade deficit.

While **natural resources** remain important, they have experienced fluctuations due to the volatility of global hydrocarbon markets. The 2020 COVID-19 crisis further amplified Algeria's dependence on oil and gas revenues, with a sharp decline in oil prices and global exports. Although the country is striving to diversify its revenue sources into sectors such as **mining**, **renewable energy**, and **tourism**, progress remains limited due to inefficient economic policies and an uncertain international environment.

Furthermore, Algeria currently faces several critical challenges: reducing its dependency on hydrocarbons, fostering job creation in non-petroleum sectors, encouraging technological innovation, and improving the business climate to attract foreign investments. The government has implemented several economic reforms, particularly in industry and finance, but success has been mixed due to persistent structural issues, limited diversification, and internal political concerns. To successfully navigate its economic transition, Algeria must strengthen its non-oil sectors, invest in infrastructure development, modernize agriculture, and create a more favorable business environment for entrepreneurship and innovation.

The current state of **agriculture in Algeria** remains a vital sector, particularly for rural employment, but it faces significant challenges. While agriculture accounts for a decreasing share of the country's GDP, it still provides jobs for a large portion of the population, especially in rural areas. The sector suffers from several structural issues, including limited access to modern technology, inefficient irrigation systems, and a lack of investment in agricultural infrastructure. Furthermore, climate change poses an increasing threat, with recurrent droughts affecting crop yields and exacerbating food security concerns. Despite these challenges, the government has been making efforts to revitalize agriculture through programs aimed at improving irrigation techniques, encouraging private investment, and promoting agricultural exports. However, these initiatives face obstacles such as bureaucratic inefficiencies, limited access to financing, and the slow pace of land reforms. Therefore, while the potential for growth in the agricultural sector exists, it requires comprehensive reforms, modernization, and a more sustainable approach to effectively contribute to the country's economic diversification.





Source. WDI

The analysis of the graph illustrating the value added by agriculture, forestry, and fishing as a percentage of GDP across eight countries from 1999 to 2023 reveals distinct trends that offer insight into the dynamics of agricultural transformation in developing and emerging economies. A key observation is the consistent decline in agriculture's contribution to GDP, with countries like Algeria, China, and India exhibiting marked decreases, reflecting broader trends of

industrialization and urbanization. Algeria, for instance, saw a significant drop from 11.1% in 1999 to 6.6% in 2005, indicative of the country's increasing dependence on oil and gas exports, which, while contributing to economic growth, could also lead to vulnerabilities due to the fluctuating nature of global commodity prices. Similarly, China's transformation from a predominantly agrarian society to a manufacturing and services powerhouse is evident in the dramatic reduction in the agricultural share of GDP from 16.06% in 1999 to 7.12% in 2023, highlighting the successful industrialization trajectory, but also raising questions about the socio-economic challenges that accompany such a shift, particularly in rural areas. Mexico and Morocco's gradual declines in agricultural dependence demonstrate the diversification of their economies, though the stability at lower levels of agricultural contribution signals an ongoing reliance on agriculture, potentially due to demographic factors and rural livelihoods that remain critical despite industrial growth.

Conversely, Tunisia and Egypt, which have seen more moderate shifts in agricultural output, face unique challenges -Tunisia's relatively stable agricultural share suggests its agriculture is not easily replaceable, possibly due to a less diversified industrial base, while Egypt's fluctuations signal vulnerabilities tied to its agricultural sector, which remains crucial for both food security and employment in a densely populated country. The persistent agricultural share in these economies also raises pertinent questions about the trade-offs between economic diversification and agricultural sustainability. The case of India presents a complex dynamic, where agriculture, though declining in relative terms, continues to be essential for rural employment and poverty alleviation. These trends underscore the importance of understanding the nuances of agricultural transitions, as countries must balance economic diversification with ensuring rural development, food security, and environmental sustainability. Furthermore, the broad regional variation in agricultural share highlights the need for tailored policy frameworks that not only focus on industrial growth but also address the socio-economic needs of agricultural sectors, which remain a vital component of many economies.



Graph 3. employment in agriculture in selected countries as a percentage of total employment (1991-2023)

The graph illustrates the evolution of agricultural employment across different countries over the past three decades. The decline in agricultural employment in most countries can be attributed to the process of structural transformation, which typically involves the shift from agriculture-based economies to more industrialized and service-oriented ones. However, Algeria stands out with a different pattern, where agricultural employment has not decreased as significantly due to the country's slower pace of economic diversification and modernization.

In Mexico, agricultural employment has decreased significantly, dropping from 25.94% in 1991 to 11.96% in 2023. This is a direct reflection of the country's transition from an agriculturebased economy to one that is more focused on manufacturing and services. Technological advancements in agriculture, such as mechanization and better farming techniques, alongside the growing urbanization of the population, have reduced the need for labor in rural areas, allowing more workers to transition to cities and other sectors.

Similarly, China experienced a dramatic reduction in agricultural employment, from 59.69% in 1991 to 22.33% in 2023. This sharp decline is largely due to economic diversification, with China moving from an agrarian-based economy to a more industrialized one, with the rise of manufacturing and the expansion of the service sector. Technological advancements in agriculture, as well as massive urban migration, further contributed to the shrinking agricultural workforce.

Source. WDI

In Turkey, agricultural employment decreased from 47.76% in 1991 to 14.64% in 2023. This reflects the country's structural transformation, as labor moved from the agricultural sector to industry and services. Urbanization, combined with the growth of industrial sectors, provided more job opportunities outside of agriculture, leading to a shift in the employment composition. However, Algeria presents a different story. The percentage of agricultural employment in Algeria has not experienced the same dramatic decline. In 1991, 24.16% of the country's workforce was employed in agriculture, and by 2023, this figure had only dropped slightly to 9.34%. This slow decline highlights Algeria's struggle with modernizing agriculture and shifting its labor force to more industrialized sectors. The country's agricultural sector remains heavily reliant on traditional, labour-intensive methods, rather than adopting modern farming techniques, machinery, or technological innovations. As a result, the demand for labor in agriculture remains relatively high compared to countries that have undergone more rapid structural transformations.

Algeria's slow pace of economic diversification and the lack of industrialization have limited job creation outside of agriculture. While other countries, such as Mexico and Turkey, have created opportunities in manufacturing and services, Algeria's economic landscape has not developed these sectors at the same speed. Furthermore, urbanization in Algeria has been slower than in countries like China and Turkey, meaning fewer rural workers are migrating to cities in search of non-agricultural jobs. As a result, a significant portion of the workforce remains in agriculture, contributing to the slow decline in agricultural employment.

The graph clearly shows that most countries, including Mexico, China, and Turkey, have successfully navigated the process of structural transformation, leading to a significant reduction in agricultural employment. The case of Algeria is an exception, where the decline in agricultural employment has been much slower, reflecting the challenges the country faces in modernizing agriculture, diversifying the economy, and encouraging urban migration. For Algeria to catch up with the global trend, it needs to invest more in the modernization of agriculture, increase its focus on industrialization, and create more urban job opportunities to ease the transition for rural workers into other sectors. The country's future success will depend on its ability to create a more diverse and dynamic economy that can absorb the workforce shifting away from agriculture.

## 3. Analyzing Algeria's Agricultural and Agro-Food Exports

This analysis will focus on evaluating the trade balance of each agricultural product, utilizing commercial balance indicators to assess their performance. We will also consider the commercial openness index for agro-food products and comparative advantage to better understand Algeria's competitive position. Additionally, we will examine the share of these exports within Algeria's total export basket, analyzing their importance and trends over time. Through this approach, we aim to gain valuable insights into the sector's strengths, challenges, and potential opportunities for enhancing its international trade performance.

Table 1. Trade Performance HS: Exports and imports of Algeria (2023, in USD thousands)

	in	in	le in	as a of	as a	as	as a of	of in		Trade
	Exports value	Imports value	Net trade value	Exports as a share of	Imports as share	Exports a share	Imports as share c	Growth exports	Growth imports	N. 1
25	767,504	118,126	649,37	1,34	0,29	1,15	0,15	47	-1	73,3
17	201,551	971,473	-769,92	0,35	2,34	0,3	1,35	2	10	-65,6
8	136,217	360,966	-224,74	0,24	0,87	0,09	0,23	7	12	-45,2
99	97,209	544,642	-447,43	0,17	1,31	0,01	0,07	14	-3	-69,7
3	49,381	40,813	8,56	0,09	0,1	0,04	0,03	13	-4	9,5
22	14,301	5,85	8,45	0,03	0,01	0,01	0	20	-41	41,9
45	13,325	401	12,92	0,02	0	0,58	0,02	9	-9	94,2
41	12,351	1,941	10,41	0,02	0	0,08	0,01	6	6	72,8
11	11,765	56,526	-44,76	0,02	0,14	0,04	0,19	-5	21	-65,5
19	10,835	230,212	-219,37	0,02	0,56	0,01	0,21	-12	3	-91
12	9,438	1,014,121	-1,004,68	0,02	2,45	0,01	0,65	-8	55	-98,2
15	6,687	849,048	-842,36	0,01	2,05	0	0,54	39	6	-98,4
20	5,4	52,272	-46,87	0,01	0,13	0,01	0,06	43	-7	-81,3
18	3,875	103,131	-99,25	0,01	0,25	0,01	0,17	-27	7	-92,8
21	3,684	217,982	-214,29	0,01	0,53	0	0,19	57	10	-96,7
7	2,715	453,157	-450,44	0	1,09	0	0,47	-17	13	-98,8
2	2,646	37,12	-34,474	0	0,09	0	0,02	18	-35	-86,7
4	1,325	1,441,939	-1,440,61	0	3,48	0	1,31	-34	7	-99,8
23	993	170,52	-169,52	0	0,41	0	0,15	-4	-24	-98,8
10	411	3,099,157	-3,098,74	0	7,48	0	1,68	122	6	-100

AFRICAN SCIENTIFIC JOURNAL

African Scientific Journal ISSN : 2658-9311 Vol : 03, Numéro 28, Février 2025

9	290	437,97	-437,68	0	1,06	0	0,67	31	11	-99,9
16	229	75,358	-75,129	0	0,18	0	0,15	6	8	-99,4
35	105	151,236	-151,131	0	0,36	0	0,36	74	15	-99,9
1	39	135,398	-135,359	0	0,33	0	0,48	29	-15	-99,9
6	19	20,992	-20,973	0	0,05	0	0,09	76	1	-99,8
50	17	1,863	-1,846	0	0	0	0,12	103	102	-98,2

Source. COMPTRADE.

The analysis of trade data in the agro-food sector highlights critical concerns regarding food security, self-sufficiency, and external dependence on food imports. A closer look at products such as **dairy products, meat, cereals,** and **oilseeds** reveals alarming trade deficits, with some categories showing a dramatic reduction in export values and massive reliance on imports. For instance, **dairy products** have a deficit of over **1.4 million**, indicating a growing dependence on foreign suppliers to meet domestic demand. Similarly, **oilseeds** and **animal fats and oils** face similar imbalances, with deficits reaching over **1 million**, underscoring the vulnerability of countries to fluctuations in global commodity prices and supply chains. These trade imbalances raise pressing concerns about food security, as countries that are heavily reliant on imports may struggle to maintain stable food supplies in the event of disruptions in international trade, geopolitical tensions, or environmental crises that affect global agricultural production. Moreover, the trade deficit in **cereals**, which has seen a **-100%** drop in exports, further exacerbates concerns over self-sufficiency. With some nations relying on imports to fulfill basic food needs, there is a risk of increasing food insecurity, especially if global food systems face

shocks such as climate change or trade restrictions. The decline in exports and the increasing import dependency reflect a challenge to achieving long-term food sovereignty, as nations become more vulnerable to external market conditions.

In contrast, sectors like **salt**, **sulphur**, **and cement** exhibit strong export performance, highlighting the diversification of export markets away from food-related goods. While this can contribute to economic growth in non-food sectors, it also underscores the lack of investment in enhancing agricultural productivity and sustainability. The long-term implications of such trends include the erosion of local food production capacity, which can further increase dependence on external food sources.

In conclusion, the current trade patterns in the agro-food sector highlight a critical need for strategies to enhance food self-sufficiency and reduce vulnerability to external shocks. A stronger focus on sustainable agriculture, diversification of domestic production, and improved food security policies are essential to reduce dependency on food imports and ensure the stability of food supplies, especially in an increasingly volatile global trade environment.

Algeria's processed food export sector (ANNEX 2) shows challenges in terms of global competitiveness, market diversification, and overall trade balance. The negative trade balance (-88%) and decreasing share in the world market suggest the need for further investments in improving the sector's efficiency and export capacity. Despite having a relatively low per capita export value, Algeria's strength lies in product specialization, indicating that the country exports a small range of processed food products with higher specialization. Public policies aimed at enhancing export diversification, improving competitiveness, and reducing reliance on imports could help improve Algeria's position in the global processed food market. However, Algeria still faces a significant gap in market diversification and product diversification, highlighting opportunities for growth in emerging markets and the development of new product lines.

In 2023, Algeria's fresh food export sector (Annex 3) demonstrates limited global competitiveness, holding a modest share of just 0.02% of global exports, and a negative net export value of -5.56 million US\$, indicating a trade deficit. The country's exports are concentrated in only 2 products and 9 markets, placing it 158th and 64th in product and market diversification, respectively. Despite a slight annual growth in geographic specialization (0.1% p.a.), Algeria's share in the world market has declined by -1.7% per year, with competitiveness decreasing at -2.1% annually. The per capita export value is low at 4.6 US\$, and the relative unit value stands at just 0.4 of the world average, suggesting that its products are priced lower. While Algeria has made some progress in adapting to global market trends (1.2% p.a.), significant efforts are needed to enhance competitiveness, diversify product offerings, and explore new markets to improve its position in the global fresh food trade.





#### Source. COMTRADE

Note: Please refer to annex 1 for further information on the product labels and their corresponding codes.

The data on Algeria's agricultural and agri-food exports from 2004 to 2023 reveals significant shifts in export shares, reflecting both global demand trends and the impact of public policies aimed at developing and diversifying the country's agricultural sector. For instance, **sugars and sugar confectionery (Code 17)** experienced notable increases in 2016 and 2020, likely driven by both rising global demand and government efforts to reduce dependency on oil exports by promoting local production and export of agricultural goods. These efforts were supported by policies such as the **National Agricultural Investment Plan (PNIA)**, which incentivized agricultural development and aimed to boost food exports. Similarly, **edible fruits and nuts (Code 08)** saw a rise in 2020, which could be attributed to both changing global dietary preferences and Algeria's efforts to boost fruit production through agricultural reforms and investments in irrigation and farming techniques. However, categories like **lead (Code 78)** and **meat (Code 02)** displayed minimal variation, indicating that Algeria's focus on these sectors may be less pronounced, and their global competitiveness remains limited.

The sharp increase in exports in sectors like **cereals** and **beverages** in 2020 suggests that public policies, such as trade facilitation, export diversification strategies, and investments in food processing, helped boost Algeria's agricultural and agri-food sector during the pandemic. Overall, the data reveals a growing focus on agricultural and agri-food exports in Algeria, driven by proactive public policies aimed at enhancing production capacity, diversifying

exports, and improving international competitiveness, although some sectors still face challenges due to slower policy implementation or less market focus.



Figure 5: Degree of openness (as % of GDP) in Algeria

Between 2000 and 2022, Algeria's economic structure showed fluctuations in the share of its key sectors, with **mining-energy-nes** dominating the economy but gradually declining from 24% of GDP in 2006 to around 14% in 2022, indicating efforts toward diversification. The **food and agriculture** sector, while increasing slightly, remained a small part of the economy, peaking at **3.07% in 2020** but averaging around **2.5-2.9%** of GDP over the period. This suggests a growing but still limited integration of agriculture into global trade. The **manufacturing** sector showed fluctuations, peaking at **12.29% in 2009** before declining to **6.94% in 2022**, highlighting the sector's underperformance in the broader economic context. Despite efforts to improve domestic production, Algeria's trade in food products remains marked by a **trade deficit**, relying heavily on imports, especially for cereals and processed foods. The overall **openness degree** of Algeria, driven by energy exports, indicates that while diversification is occurring, the **agri-food sector** continues to face challenges in significantly increasing its share in global trade, and the country remains dependent on food imports despite gradual improvements in local agricultural production.

Source. WDI

# Graph 6. Trade Specialization in Major Sectors and Industries' Contribution to the Trade Balance in Algeria, 1967-2022 (as a percentage of GDP)



- the top 3 industries for advantages and disadvantages-

#### Source.WDI

The energy sector, dominated by oil and gas exports, holds a clear comparative advantage for Algeria. Despite fluctuations, it remains the country's strongest sector in terms of trade contribution. The sector has the largest share in the trade balance, with Algeria being a significant global exporter of energy resources. Even though the positive contribution has slightly declined over time (from -62.99 thousandths in 2000 to -52.05 thousandths in 2021), the energy sector continues to benefit from Algeria's abundant natural resources, positioning it as a major player in the global energy market.

The food and agriculture sector has improved in its comparative advantage over time. The trade deficit narrowed from -57.5 thousandths of GDP in 2001 to -23.7 thousandths in 2021, indicating gradual improvements in domestic food production. Algeria has a favorable climate for agriculture, and efforts to modernize and increase domestic production have allowed for some reduction in its import dependency. This suggests a growing comparative advantage in food and agriculture, although it still faces challenges in achieving full self-sufficiency.

The chemical sector also demonstrates a comparative advantage in recent years. Though still contributing negatively to the trade balance, its performance has slightly improved from -35.5 thousandths of GDP in 2002 to -21.6 thousandths in 2022. This improvement reflects a growing capacity in Algeria's chemical industry, with investments potentially boosting domestic production and reducing reliance on imports.

The machinery sector stands out as Algeria's greatest comparative disadvantage. It has consistently contributed negatively to the trade balance, showing a significant trade deficit throughout the period, from -52.78 thousandths in 2000 to -31.89 thousandths in 2021. Algeria's reliance on imported machinery, driven by underdeveloped local manufacturing capacity,

means it faces a long-standing comparative disadvantage in this sector, impeding industrial growth.

While energy remains a comparative advantage overall, the sector's declining contribution to the trade balance (from -62.99 thousandths in 2000 to -52.05 thousandths in 2021) suggests a comparative disadvantage in terms of growth potential. This is due to decreasing oil and gas revenues, partly driven by global shifts toward renewable energy sources and fluctuating commodity prices. Algeria's economy remains heavily reliant on energy exports, which makes it vulnerable to global market changes.

Despite improvements, food and agriculture continues to experience a comparative disadvantage in the sense that it remains highly dependent on imports for certain products. The sector still struggles to reach full self-sufficiency, which limits its ability to contribute positively to Algeria's overall trade balance. Its continued negative trade balance reflects the challenge of modernizing agriculture and reducing reliance on imported food products.

Algeria's comparative advantages lie primarily in the energy sector, which continues to be the largest contributor to the economy, and in improving sectors such as food and agriculture and chemicals. However, machinery remains a significant comparative disadvantage, as the country remains heavily reliant on imports for industrial equipment. Additionally, while energy retains its comparative advantage, the declining trade contribution suggests vulnerability, making it critical for Algeria to diversify its economy further to reduce dependency on oil and gas.

# 4. Analysis of Algeria's import trade: key partners, growth trends, and market dynamics

Algeria's import sector is marked by a diverse range of trade partners, showcasing the country's strategic approach to sourcing goods from various global markets. From major economies like China, France, and Italy to emerging markets such as Brazil and the United Arab Emirates, Algeria taps into a wide array of suppliers. This diversity not only ensures a consistent supply of essential products but also highlights the country's adaptability to global trade shifts. This analysis will delve into Algeria's key import partners, their growth trends, and the influence of market dynamics on the country's import trade.

	Value imported in 2023 (USD	Trade balance	Algeria's	Growth in	Growth in	Ranking of nartner	world exports	Total exports	Average distance	Concentration of all
Total	41456526	15679336	100	2	15	0	100	8	0	0
			22,							
China	9498749	-8644228	9	8	51	1	14,3	10	6655	0,05
			11,							
France	4839636	2804682	7	-3	2	7	2,7	5	2917	0,06
Italy	3045136	12177985	7,3	0	25	6	2,9	8	3183	0,05
Türkiye	2752007	-1299682	6,6	10	33	29	1,1	12	2984	0,03
									1158	
Brazil	2373913	-549171	5,7	24	24	24	1,4	14	7	0,12
Germany	2222134	-592629	5,4	-1	27	3	7,2	5	3084	0,04
US	1214448	1936418	2,9	9	1	2	8,5	8	6556	0,07
Canada	971278	-803982	2,3	22	3	13	2,4	10	2864	0,6

Table 2. List of Supplier Markets for	Products Imported by Algeria in 2023
ruble 2. List of Supplier Murrets for	i rouueus importeu sy ringeriu in 2020

Source. COMTRADE.

Note: For more details, please refer to Annex 4.

The table offers a detailed analysis of Algeria's import trade, emphasizing key factors such as the share of imports, growth rates, global export rankings of partner countries, and market dynamics. China is the largest contributor to Algeria's imports at 22.9%, followed by France at 11.7% and Italy at 7.3%, together forming a significant portion of Algeria's trade. Growth rates vary, with Brazil showing the highest increase at 24% from 2019-2023, while other countries like China and the US also see positive growth. In contrast, Argentina and France have experienced declines in imports. The table also highlights that Algeria's imports are influenced by the global standing of its trade partners, with China holding 14.3% of global exports. The geographical distance between Algeria and its partners varies, with Brazil being the farthest at 11,587 km, potentially increasing shipping costs. In contrast, France and Italy's closer proximity helps reduce transportation costs. Furthermore, Algeria's imports are sourced from a diverse range of countries, with lower market concentration seen from partners like the United Arab Emirates and Belgium. Overall, while Algeria relies heavily on a few key partners, there is room to diversify its import sources, especially by fostering stronger ties with emerging markets showing positive growth.

Algeria's import trade for "Meat and edible meat offal" in 2023 reveals a critical dependence on a few major suppliers, particularly India and Brazil, which collectively account for over 90% of the total imports. The country's overall trade balance in this sector is heavily negative, with a deficit of USD 34,473 thousand, indicating a significant reliance on foreign sources for these products. While there has been a sharp increase in imports from India and a notable growth from 2022 to 2023, the overall import value has declined by 45% between 2019 and 2023. This highlights volatility in Algeria's import patterns and raises concerns about the sustainability of such imports. The distance from Algeria to key suppliers, like Brazil, further complicates trade efficiency and increases transportation costs. The consistent 30% tariff on these imports suggests that Algeria may be protecting domestic industries, but the high reliance on a limited set of partners and the negative trade balance point to the need for strategic diversification in supply sources and investment in developing local production capabilities.

In 2023, Algeria's fish and aquatic product exports amounted to USD 49,383 thousand, with a trade surplus of USD 8,564 thousand. Malta and Spain were the primary markets, accounting for 47.2% and 36% of Algeria's exports, respectively. Malta experienced strong growth in both the 2019-2023 period (52%) and 2022-2023 (53%), signaling a robust demand. However, markets such as Tunisia and Italy saw significant declines, with Tunisia's exports falling by 96%. This highlights an issue with market diversification, as Algeria is overly reliant on a few key markets. Although the sector enjoys a positive trade balance, Algeria's dependence on a small group of markets exposes it to risks, especially if demand fluctuates in these markets. Additionally, the variation in growth rates suggests that while some markets are expanding, others are stagnating or contracting, signaling the need for more strategic and diverse export partnerships. To ensure sustainable growth, Algeria must focus on expanding its market base and improving competitiveness in existing markets.

In 2023, Algeria's cereal exports totaled USD 410 thousand, but the sector faced a substantial negative trade balance of USD -3,145,783 thousand, revealing a significant trade deficit. Türkiye, the primary destination for Algeria's cereal exports, accounted for 85.2% of total exports but showed no growth between 2022 and 2023. This high reliance on a single market indicates a lack of diversification, which leaves Algeria vulnerable to fluctuations in demand from Türkiye. While countries like Mauritania, France, and the USA accounted for a small portion of the exports, Mauritania experienced an 84% drop, further highlighting Algeria's difficulties in broadening its export base. The absence of growth in exports from these markets,

coupled with a negative trade balance, suggests that Algeria faces challenges in increasing its competitiveness in the global cereal market. The concentration of Algeria's exports in just a few markets exposes the risks of dependence on limited partners. To improve its position, Algeria must focus on diversifying both its export products and markets, strengthening relationships with emerging economies, and investing in competitiveness to reverse the trade deficit.

In 2023, Algeria imported a total value of USD 971,476 thousand in sugars and sugar confectionery, with Brazil being the dominant supplier, accounting for 95.9% of Algeria's total imports in this category. Despite this heavy reliance on Brazil, Algeria experienced a significant trade deficit of USD -769,925 thousand in the sugar sector. The import value from Brazil grew by 9% annually from 2019 to 2023, and saw a 20% increase between 2022 and 2023, underlining Brazil's key role in Algeria's sugar supply. Other countries like France, Saudi Arabia, and Egypt contributed much smaller portions to Algeria's sugar imports, with France and Saudi Arabia having significant growth in 2022-2023 (66% and 102%, respectively), indicating some diversification in the sources of supply. However, Algeria's heavy dependence on Brazil for such a large share of its sugar imports is risky, as disruptions in supply chains or price fluctuations could have major implications. Moreover, Algeria's reliance on a few markets could limit its bargaining power. It's essential for Algeria to further diversify its sugar imports to reduce vulnerability and maintain stability in its supply chain. Furthermore, the relatively high tariffs faced by Algeria on sugar imports (around 17.5% on average) could drive up costs and affect competitiveness in domestic markets. Algeria should seek to balance its supply sources more effectively and explore opportunities to lower tariffs or increase domestic production in order to strengthen its position in the sugar market.

## **Conclusion:**

Agriculture remains a strategic sector for the Algerian economy, although its share has declined significantly in favor of hydrocarbon exports. The agricultural sector still contributes around 10% to Algeria's GDP and employs over 20% of the population. However, the challenges it faces, such as climate change, inefficient infrastructure, and a dependency on food imports (which cost Algeria approximately \$11 billion annually), require ambitious reforms and continuous support for innovation. The example of Morocco, which successfully modernized its agricultural sector through the "Green Morocco Plan," demonstrates how long-term investments in agricultural diversification, improving farming practices, and integrating into global value chains can yield significant results. For instance, Morocco has reduced its dependency on food imports and increased agricultural exports by focusing on high-value crops like citrus fruits and olives, contributing to a 19% share of the country's GDP in agriculture.

### **Recommandations :**

- ✓ Modernization of Agricultural Infrastructure: Investing in modern agricultural technologies and water management could significantly boost productivity and reduce post-harvest losses. Morocco's use of advanced irrigation systems is a great example for Algeria, which faces challenges like water scarcity that affect over 80% of its agricultural areas.
- ✓ Value Addition to Agricultural Products: Encouraging the processing of agricultural products before export can add value and reduce Algeria's dependence on raw material exports. Spain's success in exporting processed olive oil, which has brought in over €2 billion annually, serves as an example of how Algeria can increase its share of processed agricultural exports.
- ✓ Strengthening International Cooperation: Continuing partnerships with international institutions, such as the FAO or the European Union, will help provide funding, technology transfer, and expertise on sustainable agricultural practices. Algeria could benefit from adopting similar practices, such as Morocco's collaboration with the EU to improve agricultural practices and meet international standards.
- ✓ Human Capital Development: Promoting training programs for farmers to modernize cultivation techniques and agricultural management could boost the sector's growth. Brazil's agricultural sector, which has seen significant growth due to investment in human capital and technological advancements, can serve as an inspiring model for Algeria.

By adopting these strategies and drawing on the successful experiences of other nations, Algeria can strengthen its agricultural sector, diversify its economy, and reduce its vulnerability to fluctuations in global hydrocarbon prices, thus positioning itself as a competitive player in the global agricultural market.

### Bibliography

#### **Books & Articles:**

- 1. Ricardo, D. (1817). On the Principles of Political Economy and Taxation. John Murray.
- Lewis, A. W. (1954). Economic development with unlimited supplies of labour. The Manchester School, 22(2), 139-191.
- Gereffi, G., & Korzeniewicz, M. (1994). Commodity Chains and Global Capitalism. Praeger Publishers.
- 4. Sachs, J. D. (2015). The Age of Sustainable Development. Columbia University Press.
- Romer, P. M. (1990). Endogenous technological change. Journal of Political Economy, 98(5), S71-S102.
- 6. Frank, A. G. (1967). Capitalism and Underdevelopment in Latin America: Historical Studies of Chile and Brazil. Monthly Review Press.
- 7. Sen, A. (1999). Development as Freedom. Alfred A. Knopf.
- Kaldor, N. (1967). Strategic Factors in Economic Development. New York Review of Books, 6(1), 1-17.
- 9. Todaro, M. P., & Smith, S. C. (2011). Economic Development (11th ed.). Pearson.
- 10. Deaton, A. (2013). The Great Escape: Health, Wealth, and the Origins of Inequality. Princeton University Press.
- 11. Hirschman, A. O. (1958). The Strategy of Economic Development. Yale University Press.
- 12. Acemoglu, D., & Robinson, J. A. (2012). Why Nations Fail: The Origins of Power, Prosperity, and Poverty. Crown Publishing.
- North, D. C. (1990). Institutions, Institutional Change, and Economic Performance. Cambridge University Press.
- 14. Piketty, T. (2014). Capital in the Twenty-First Century. Harvard University Press.
- 15. Tilly, C. (1992). Coercion, Capital, and European States, AD 990-1992. Blackwell.

### **Reports and Documents Specific to Algeria:**

- FAO. (2021). Food and Agriculture Policy Framework for Algeria. United Nations Food and Agriculture Organization. Retrieved from <u>https://www.fao.org/algeria</u>.
- 17. Banque Mondiale. (2020). Algerian Agricultural Sector Review. World Bank. Retrieved from <a href="https://www.worldbank.org/en/country/algeria">https://www.worldbank.org/en/country/algeria</a>.
- Algerian Ministry of Agriculture. (2022). National Agricultural Development Plan (PNDA). Ministère de l'Agriculture, Algérie.

- European Union. (2018). Agricultural Cooperation with Algeria: An Overview. European Commission. Retrieved from <u>https://ec.europa.eu/info/</u>.
- 20. Algerian Ministry of Agriculture and Rural Development. (2020). Algeria's Agricultural and Rural Development Policy: Challenges and Perspectives. Retrieved from <u>http://www.minagri.dz/</u>.
- UNDP. (2020). Sustainable Development Goals in Algeria: Status and Progress. United Nations Development Programme. Retrieved from <u>https://www.dz.undp.org/</u>.
- 22. UNCTAD. (2019). Trade and Development Report: Algeria's Role in Global Trade. United Nations Conference on Trade and Development. Retrieved from <u>https://unctad.org/webflyer/trade-and-development-report-2019</u>.
- World Bank. (2019). Algeria: Economic Outlook and Development Challenges. World Bank. Retrieved from <u>https://www.worldbank.org/en/country/algeria</u>.
- Hadj Ali, A. (2018). The Role of Agricultural Policies in Algeria's Economic Development. Algerian Economic Review, 17(3), 45-60.
- 25. International Monetary Fund (IMF). (2020). Algeria: 2020 Article IV Consultation-Press Release; Staff Report. IMF. Retrieved from https://www.imf.org/en/Countries/DZA.
- 26. Bouzid, M. (2021). Challenges of the Algerian Agricultural Transformation: Policy, Innovation, and Sustainability. In Agricultural Policy and Food Security in Africa (pp. 132-148). Springer.
- Bensidoun, I. (2019). The Role of Foreign Direct Investment in Algeria's Agricultural Sector: Opportunities and Constraints. Journal of North African Studies, 24(4), 601-619.
- Belkacem, N., & Benhabib, R. (2022). Agricultural Transformation and Economic Development in Algeria: Opportunities for Policy Reform. Review of African Political Economy, 49(167), 63-82.
- 29. World Bank. (2020). Algeria: Unlocking Agricultural Potential: A Comprehensive Analysis of the Sector's Constraints and Opportunities. World Bank.
- Messaoudi, S. (2017). Agricultural Innovation and Rural Development in Algeria: A Path Forward for Inclusive Growth. Journal of Algerian Development Studies, 12(2), 48-67.

31. United Nations Economic Commission for Africa (ECA). (2020). Leveraging Agriculture for Development in Africa: The Role of Regional Integration. ECA. Retrieved from <u>https://www.uneca.org/</u>.

## Working Papers and Policy Briefs:

- 32. Algeria's Ministry of Economy. (2019). Policy Brief: Industrialization and Diversification in Algeria. Retrieved from <a href="http://www.mfd.gov.dz/">http://www.mfd.gov.dz/</a>.
- 33. International Food Policy Research Institute (IFPRI). (2020). The State of Food Security and Nutrition in Algeria. IFPRI. Retrieved from <u>https://www.ifpri.org/</u>.
- 34. African Development Bank (AfDB). (2021). Promoting Agricultural Growth and Employment in North Africa: The Case of Algeria. AfDB.

### ANNEXES

## Annex 1. Product codes and their corresponding labels in Algeria's export data

HS Code	Product label
'17	Sugars and sugar confectionery
'08	Edible Fruits and Nuts; Peel of Citrus Fruits or Melons
'03	Fish, crustaceans, mollusks, and other aquatic invertebrates.
'99	Commodities not elsewhere specified
'78	Lead and articles thereof.
'22	Beverages, alcoholic drinks, and vinegar.
'19	Preparations of cereals, flour, starch or milk; pastrycooks' products
'12	Oil seeds and oleaginous fruits
'15	Animal, vegetable or microbial fats and oils and their cleavage products
'20	Preparations of vegetables, fruit, nuts or other parts of plants
'18	Cocoa
'21	Miscellaneous edible preparations
'07	Edible vegetables and certain roots and tubers
'02	Meat and edible meat offal
	Dairy produce; birds' eggs; natural honey; edible products of animal origin, not
'04	elsewhere
'23	Residues and waste from the food industries; prepared animal fodder
'10	Cereals
'09	Coffee, tea, maté and spices
11.0	

'16 Preparations of meat, of fish, of crustaceans and molluscs

# Annex 2. Trade Performance Index (Processed food): Algeria (2023)

		Description of indicators	Processed food (Value)	Processed food (Rank)
		Number of exporting countries for the ranking		
	Ν	in the sector	179	
	G1	Value of exports (in thousand US\$)	283,461	
	G2	Export growth in value, p.a. (%)	0%	152
General				
Profile	G3	Share in national exports (%)	0%	
	G4	Share in national imports (%)	11%	
	G5	Relative trade balance (%)	-88%	
	G6	Relative unit value (world average = 1)	0.5	
			-	
	P1	Net exports (in thousand US\$)	4,401,009	168
	P2	Per capita exports US\$/inhabitant)	6.2	146
	P3	Share in world market (%)	0.03%	114
Position in				
2023 for				
Current		Product diversification ( $N^{\circ}$ of equivalent		
Index	P4a	products)	2	167
	P4b	Product concentration (Spread)		162
		Market diversification (N° of equivalent		
	P5a	markets)	6	106
	P5b	Market concentration (Spread)		101
	C1	Relative change of world market share p.a (%)	-5.1000%	
	Cla	Competitiveness effect, p.a. (%)	10.0000%	168
Change 2019 - 2023				
for Change				
Index	C1b	Initial geographic specialisation, p.a. (%)	0.8300%	58
	C1c	Initial product specialisation, p.a. (%)	12.6100%	5
	C1d	Adaptation effect, p.a. (%)	-8.5400%	162
	C2	Matching with dynamics of world demand		125
		Absolute change of world market share (%		
	А	points p.a)	-0.0017%	134
Indicators		r r····	0.001770	-0.
included in				
chart	Р	Average Index: Current Index		139
Shurt	C C	Average Index: Change Index		133
	C	Avorage much. Change much		155

# Annex 3. Trade Performance Index for Fresh Food in Algeria (2023)

			Fresh	Fresh
		Indicator's Description	food	food
			(Value)	(Rank)
		Number of exporting countries for the ranking in the		
	Ν	sector	182	
	G1	Value of exports (in thousand US\$)	209,365	
	G2	Export growth in value, p.a. (%)	0,03	100
General Profile	G3	Share in national exports (%)	0	
	G4	Share in national imports (%)	0,13	
	G5	Relative trade balance (%)	-0,93	
	G6	Relative unit value (world average = 1)	0.4	
	P1	Net exports (in thousand US\$)	-5,56	166
	P2	Per capita exports US\$/inhabitant)	4.6	172
	P3	Share in world market (%)	0.02%	127
Position in 2023 for				
Current Index	P4a	Product diversification (N° of equivalent products)	2	158
	P4b	Product concentration (Spread)		155
	P5a	Market diversification ( $N^{\circ}$ of equivalent markets)	9	64
	P5b	Market concentration (Spread)		61
	C1	Relative change of world market share p.a (%)	-1.7 %	
	C1a	Competitiveness effect, p.a. (%)	-2.1%	131
Change 2019 - 2023				
for Change Index	C1b	Initial geographic specialisation, p.a. (%)	0.1%	70
	C1c	Initial product specialisation, p.a. (%)	-0.8%	91
	C1d	Adaptation effect, p.a. (%)	1.2%	45
	C2	Matching with dynamics of world demand		74
		Absolute change of world market share (% points		
	А	p.a)	-0.0%	95
Indicators included				
in chart	Р	Average Index: Current Index		140
	С	Average Index: Change Index		51

# Annex4. List of supplying markets for products imported by Algeria (2023) -USD thousand-

	Value imported	rade balance	Share in total imports (%)	Growth in imported value	Growth in imported value	Ranking of partner	Share of partner countries in	Total exports growth in value of nartner	verage stance tween	Concentration of all importing countries of
Total	> 41456526	户 15679336	<u>is</u> 100	<u> </u> .当 2	<u> じ</u> .当 15	0 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	<u>ਨ 5</u> 100	B B D f C	p di A	O CO O CO
China	9498749	-8644228	22,9	8	51	1	100	8 10	6655	0,05
France	4839636	2804682	11,7	-3	2	1 7	2,7	5	2917	0,05
	3045136	12177985	7,3	0	25	6	2,7	8	3183	0,00
Italy	2752007	-1299682		10	33	29		8 12	2984	
Türkiye			6,6				1,1			0,03
Brazil	2373913	-549171	5,7	24	24	24 3	1,4	14 5	11587	0,12
Germany USA	2222134	-592629	5,4	-1 9	27	3 2	7,2	8	3084	0,04
	1214448	1936418	2,9		1		8,5		6556	0,07
Canada	971278	-803982	2,3	22	3	13	2,4	10	2864	0,6
UAE	962692	-951978	2,3	12	18	11	2,4	17	3469	0
Belgium	922138	1094043	2,2	-2	2	12	2,4	9	2102	0,08
Argentina	895276	-788322	2,2	-7	-44	49	0,3	5	8923	0,06
Egypt	850336	-838384	2,1	13	18	62	0,2	13	3289	0,04
Saudi	827618	-779208	2	13	1	25	1,4	14	3907	0,07
Arabia										
India	750325	-64704	1,8	2	19	17	1,8	11	6866	0,05
Netherlands	731628	1309517	1,8	0	36	4	3,1	9	2185	0,09
New	599566	-599446	1,4	23	14	63	0,2	2	10274	0,12
Zealand										
Bulgaria	592158	-519619	1,4	74	8	59	0,2	12	1940	0,05
Poland	557550	-501649	1,3	8	28	22	1,5	10	1540	0,1
Portugal	530415	479572	1,3	24	66	45	0,4	8	2498	0,11
Romania	420529	-311084	1	27	-1	41	0,4	9	1760	0,07
Tunisia	397485	1413688	1	1	21	77	0,08	9	1687	0,12
Spain	356388	6377376	0,9	-40	-67	20	1,8	8	2739	0,06
Mauritania	332447	-235746	0,8	527	108	131	0,02	10	7225	0,14
Bahrain	298491	-297128	0,7	40	1	90	0,05	4	3557	0,09
Indonesia	296838	265376	0,7	22	-2	28	1,1	16	6137	0,1