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Analytical Study of Mechanisms Supporting the Agricultural Sector in Algeria for Achieving Economic Diversification

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Abstract

The agricultural sector is considered one of the most important economic sectors that requires careful consideration for its development, given its significant importance in combating poverty, increasing income, achieving economic growth and development, as well as achieving self-sufficiency and food security. Agricultural economics is the applied field where theoretical agricultural strategies are implemented to improve production and achieve economic development. Like other countries, Algeria has implemented important strategies to promote the agricultural sector as a key driver of the economy, along with the industrial and service sectors. This research paper aims to study and analyze the role of agricultural sector development in achieving economic diversification, considering that the national economy heavily relies on petroleum revenues. The study concludes that Algeria has managed, through the support mechanisms provided to investors in the agricultural sector, to promote this sector, albeit to a lesser extent compared to other sectors.

Keywords: *agriculture, agricultural economics, Algeria, economic diversification.*

Introduction

Agriculture is a vital and highly important sector that countries should carefully consider for its development. It contributes to poverty alleviation, economic growth, and ultimately economic development. Moreover, this sector works towards reducing unemployment, achieving self-sufficiency, and contributing to food security. Like other countries, Algeria has formulated numerous strategies since its independence to date. However, this sector has not lived up to the aspirations and goals of the state. In this research paper, we will attempt to study the mechanisms for developing the agricultural sector in Algeria to achieve economic diversification and encourage investments in it.

Problem Statement:

Based on the previous information, the following problem can be posed:

What mechanisms has Algeria implemented in recent years to support and develop the agricultural

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sector in order to achieve economic diversification?

Sub-questions: By formulating the main question, the sub-questions can be summarized as follows:

- What are the key areas of activity in agricultural economics, and how does the concept of economic diversification manifest in the agricultural sector?
- Has the agricultural sector contributed to achieving economic diversification in Algeria?
- What are the main supportive agricultural policies in Algeria?

Hypotheses:

Based on the previous sub-questions, the study's hypotheses can be formulated as follows:

- Hypothesis 1: Agricultural production economics, farm management, and agricultural resource economics are among the key areas of activity in the agricultural sector. The concept of economic diversification in the agricultural sector is manifested through scientific and technological advancements, such as mineral fertilizers and advanced irrigation mechanisms, which contribute to improving the conditions of agricultural practices and achieving self-sufficiency and food security.
- Hypothesis 2: The agricultural sector in Algeria contributes to economic development by increasing the percentage of agriculture's contribution to employment absorption and value-added creation. However, this contribution is relatively weak compared to other sectors such as energy, services, and industry, especially in recent years.
- Hypothesis 3: The policy of supporting plastic and desert agriculture is among the most important agricultural policies in Algeria in recent years.

Previous Studies:

Slim Mejlagh, Walid Bchichi (2022): "Measuring and Analyzing Economic Diversification in Algeria for the Period 1996-2019," Algerian Journal of Economics and Management, Volume 16, Issue 1, University of 8 May 1945 Guelma, Algeria. The study aims to shed light on an economic policy that has become necessary and inevitable in the face of global economic developments, i.e., the policy of economic diversification. It seeks to identify and determine its characteristics, types, and measurement indicators. On the other hand, it applies an analysis and measurement of economic diversification in Algeria during the period 1996-2019. The study found weaknesses and fragility in the implementation of economic diversification policies in developing countries, as they tend to operate in a vicious cycle. The study also measured economic diversification in Algeria using the HHH index, which yielded results indicating a near-complete absence of economic diversification policy implementation, as the values were high and close to one.

Amina Abbas, Asma Hamdoun (2023): "The Impact of the Agricultural Sector on Economic Growth under the Implementation of Economic Diversification Strategies in Algeria - A Standard

Study for the Period (1990-2019)," Journal of Business Sciences, Volume 22, Issue 1, Djillali Liabes University - Sidi Bel Abbès, Algeria. This study aims to assess the role of the agricultural sector in the success of the economic diversification experience in Algeria by increasing economic growth rates. It uses the autoregressive distributed lag (ARDL) approach or the bounds testing technique during the period 1990-2019. The results showed a very weak contribution of the agricultural sector to economic growth compared to the agricultural potential of the country, including fertile lands and groundwater resources, especially if investment is made in the lands of southern Algeria. This low contribution was evident despite all the efforts and development projects directed towards the agricultural sector.

Study Objectives:

The study objectives can be summarized as follows:

- To define the agricultural sector and the impact it has on economy.
- To explain the fundamentals of the agricultural sector and as a means of economic diversification.
- To explore the concept of economic diversification and methods of measurement it.
- To analyze the contribution of the agricultural sector in increasing agricultural products.

Study Methodology:

The study relied on descriptive and analytical methodology to present the theoretical aspects of the study. It also utilized a case study approach when examining the reality of electronic payment methods usage in Algeria.

First: Agriculture as a Vital Sector for Economic Revitalization

Definition of Agriculture:

The term agriculture encompasses the care of soil and land, transforming them into environments conducive to cultivating various agricultural crops and plants. By providing such care, we activate other productive factors, enabling farmers to produce crops, cultivate plants, own and house animals, and produce various animal products such as meat, milk, eggs, wool, and more. Thus, the concept of agriculture becomes straightforward, encompassing all activities undertaken by agricultural economists in soil cultivation, crop production, animal husbandry, and everything related to agricultural work and farming. Moreover, agriculture can be described as the "science, art, profession, and skill of harnessing land and human resources, representing a way of life to secure livelihood."

The Economic Importance of Agriculture:

The agricultural sector is considered one of the most important sectors that plays a significant role in economic development. Many countries have achieved significant economic progress through agricultural development, similar to the United States and Britain. Moreover, developing countries

that lack sufficient resources, or what is known as countries with agricultural economies, rely heavily on agriculture for national income, employment opportunities, food supply, and stimulating industrial sectors. Food has always existed, but its availability and accessibility to humans have been major obstacles. Agricultural production, which was subject to climatic conditions and water availability, was unable to meet the high demand needed to overcome issues of hunger, poverty, and malnutrition. The population size exceeded agricultural and animal production.

Agricultural development has been able to achieve increased production of various crops and animal products through the use of modern production methods, representing vertical expansion. Additionally, horizontal expansion, which involves increasing agricultural land, has also contributed to increased agricultural production. These techniques have helped to reduce the demand for food and ensure its availability. Today, with the accelerated pace of development, most countries aim to increase their productivity efficiency to meet domestic market demands and export surpluses in order to reduce agricultural imports .

Therefore, the economic importance of agriculture is not limited to countries with agricultural economies that have a high percentage of workforce engaged in this sector. It extends to other countries with industrial economies that primarily rely on manufacturing. This highlights the economic significance of agriculture and its ability to provide agricultural products that serve as raw materials for the development of industries. Agriculture is the primary source for satisfying basic human needs such as food, clothing, and shelter. In addition, it greatly contributes to nourishing many industries with the necessary raw materials for their continued operation. The economic importance of agriculture is also evident in its ability to generate numerous employment opportunities. Agriculture serves as a vast market for many industrial products as well .

Economic Characteristics of Modern Agriculture:

The economic characteristics of modern agriculture include :

- 1. Fixed Quantity of Agricultural Economic Resources: The characteristic of fixed quantity arises due to the specificity of these resources for each agricultural activity. They are highly specialized to the extent that their utility value significantly diminishes outside the agricultural sector. For example, if we consider land as an agricultural economic resource, it is fixed and cannot be transferred from one place to another. The utilization of its wealth requires the production process to take place in the same geographic location. Furthermore, there is limited scope for expansion of land. As for agricultural labor, it is confined within the agricultural sector and cannot be used in non-agricultural activities. This is because it requires a specialization that agricultural workers cannot achieve in any other activity outside agriculture.
- 2. Seasonality of Agricultural Production: The production process in the agricultural sector is influenced by natural factors because the nature of agricultural production is inherently biological.
- 3. Specialization in Agricultural Production Feasibility: A specific region specializes in the

production of a particular type of agricultural commodities when it possesses climatic conditions that qualify it for producing such goods. The presence of suitable climatic conditions for this specific production distinguishes that region from others. In addition, the soil's suitability for this production further contributes to the concentration of efforts in these areas, indicating that these regions have acquired the characteristic of specialized production.

-3. Increasing Relative Importance of Agricultural Land: Land is characterized as one of the most crucial elements of agricultural production due to its scarcity. Changing its characteristics, such as increasing its area, is difficult without incurring high investment costs. Furthermore, it cannot be easily replaced by other productive factors except within very limited boundaries. This scarcity, along with other attributes of land such as composition, fertility, and geographic location, collectively influence agricultural operations and, consequently, the quantity, quality, and prices of the resulting products.

The Agricultural Economic Problem:

The agricultural economic problem is complex and intertwined due to its progression through various intricate stages. These agricultural economic issues arise from the characteristics inherent in agriculture, with one of the most significant being the low average individual income. This directly impacts the level of agricultural investment, which, in turn, reflects in inefficient utilization of agricultural economic resources. The variation in food production between countries can be attributed to the disparities in vital factors and natural resources, but it is primarily attributed to differences in economic development levels. In advanced countries like the United States, agricultural problems are primarily attributed to high individual income, driven by increased productivity. On the other hand, developing countries face contrasting challenges .

Major Constraints Facing Agricultural Production:

In practical terms, there are challenges in achieving the optimal utilization of production factors, such as labor and capital, where the value of the marginal output equals the marginal cost of the utilized factors. These challenges exist at both the unit level (e.g., individual cattle) and the project level (e.g., a farm), and they stem from several reasons, including :

Insufficient knowledge among farmers regarding the physical relationship between production factors.

Uncertainty and lack of confidence in determining prices for output units or production factors.

Dominance of capital rationing and limited financing available for agricultural production projects.

Lack of understanding of the cost structure of the project and the nature of cost functions.

Secondly: Agricultural Policy in Algeria

Analysis of Types of Agricultural Policies:

1.1. Policy of Agricultural Research and Extension and its Role in the Agricultural

Development Process: The transition from traditional agriculture to scientifically advanced high-yield agriculture requires significant efforts over a long period of time, not less than twenty years. This is the duration necessary for the success of research programs in developing a specific crop and subsequently transferring it to agricultural fields through the process of agricultural extension. This policy includes :

- Organization of agricultural research and increasing agricultural production: Agricultural development requires the expansion of scientific knowledge utilization in various fields and scientific domains. This is aimed at developing new technological techniques that contribute to mitigating the deterioration of agricultural production on one hand, and working towards creating a dynamic technology capable of increasing agricultural yields per production unit on the other hand. This can only be achieved through the establishment of a scientific research program by establishing agricultural research centers in accordance with the requirements of agricultural development in the country.

- Agricultural extension policy: Agricultural extension policies represent the educational approach in the agricultural development process. This is achieved through the establishment of local agricultural extension bodies that act as agricultural educators for farmers in the region, particularly in rural areas, especially those characterized by isolation from educational institutions and research centers.

- Activating the relationship between agricultural research centers and agricultural extension bodies: The Green Revolution, which was the driving force behind agricultural development in the early 1970s, marked a pivotal transition from subsistence farming to scientific agriculture. One of the key features of this stage was the expansion of agricultural research and extension activities. The agricultural sector gained significant importance in scientific research across various fields of knowledge, particularly in agriculture and agricultural economics. This transformation turned it into a knowledge-based institutional activity.

Policies for modernizing the agricultural sector and their implications on agricultural development:

The transition of the agricultural sector from the traditional stage, where farmers barely meet their subsistence needs, to modern agriculture with its high-yielding crops, necessarily requires surpassing traditional patterns in agricultural activities. It involves the adoption of all modern techniques that significantly increase the productivity of agricultural units compared to traditional farming practices. Modern agriculture necessitates fulfilling three essential conditions, which form the foundation of agricultural development. The first condition involves shifting from rain-fed agriculture to irrigated agriculture. The second condition is the adoption of advanced

mechanization technologies. The third condition entails the scientific utilization of biological and chemical techniques in agricultural processes .

Price and Agricultural Credit Policies:

Price policies in agriculture constitute a fundamental pillar for directing agricultural development and enhancing its effectiveness. These policies are implemented through various approaches. Governments may adopt policies to support crop prices or provide subsidies for agricultural inputs. However, it is necessary to implement complementary policies alongside the aforementioned ones to protect the agricultural sector from distortions resulting from the international market .

Agriculture in the Desert Algeria

The development of desert agriculture aims to enhance the agricultural potential in the southern regions of the country, particularly through expanding proven areas and developing industrial crops in the south (such as corn, soybeans, sugar beets, etc.). It also involves the establishment of the National Office for the Development of Industrial Agriculture in the Desert Lands (ODAS), recognizing the region's significance in creating job opportunities, meeting food requirements, and potentially achieving food security. The favorable climatic agricultural conditions in the foothills of the Saharan Atlas Mountains, the lower Sahara, Biskra, and even central Sahara, including Ghardaia and Ouargla, provide an opportunity for off-season production chains. These sectors can also enhance the supply sources for major urban centers in the north with garden products, including potatoes. The specified deadline for the development of desert agriculture is outlined in the map between the period of 2020 and 2021, with a primary focus on :

Assessing external potentials; expanding proven areas and developing industrial crops in the main southern region, such as soybeans and sugar beets.

Establishing and effectively implementing the National Office for the Development of Industrial Agriculture in the Desert Lands (ODAS), with a focus on developing mountainous areas through measures that improve living conditions for citizens and promote openness through the opening and development of agricultural routes.

Expanding irrigated areas and enhancing water supply systems, which are necessary for increasing production and productivity, particularly in grains, as well as in the sound management of water resources and the use of supplementary irrigation, especially in the eastern states.

Harnessing water resources, tree planting, and establishing small livestock units, while developing strong tree species such as carob and argan trees in various ecological agricultural areas (mountains, highlands, deserts, and the south).

Electrifying agriculture by providing electric or renewable energy to farm levels and development surroundings.

Plant Production in the Algerian Desert:

Plastic Agriculture:

In addition to field crops, agricultural production in the desert states also relies on plastic agriculture. This practice has proven to be highly successful, especially in the state of Biskra, which has become a leader in this type of agriculture at the national level. The development of plastic agriculture has led to a significant increase in production volume, which could contribute to achieving national food security, particularly regarding vegetable products. There are possibilities that indicate the potential to further increase production volume through plastic agriculture .

Animal Production in the Algerian Desert:

Animal husbandry or livestock farming is an important activity in the Algerian desert. Farmers engage in livestock rearing using traditional methods, either by providing industrial feed and agricultural plant residues to animals housed in stables or by practicing grazing. Livestock in the desert mainly consists of goats, sheep, horses, and camels, which are well-adapted to the desert environment. Additionally, cattle are raised for meat consumption and milk production. However, it is challenging to raise cattle in stables due to the high cost of feed and limited grazing areas. The desert climate conditions are also not suitable for cattle to thrive. Therefore, animal production in the desert primarily involves cattle, sheep, goats, camels, and horses .

Development of agricultural production in Algeria during the period 2000-2020:

Algeria possesses a total agricultural area estimated at around 44 million hectares, while the area utilized for agriculture in 2018 accounted for 80% of the available land. This necessitates efforts to enhance soil quality and develop new agricultural lands. In this context, Algeria aims to strengthen approximately 5% of the total agricultural lands, which are in the process of transitioning into fertile and cultivable lands, with the objective of promoting this vital sector. Agricultural lands represented 3.3% of Algeria's total area in 2020.

Regarding water resources, studies indicate that the estimated amount of exploitable groundwater is approximately 2 billion cubic meters per year, currently being utilized at a rate of 90%. These resources are concentrated in major aquifers such as the Tell Atlas, Saharan Atlas, and High Plateaus. Generally, Algeria has access to 147 water layers, around 60,000 small wells, 90,000 springs, and 23,000 deep wells. In the desert regions, significant quantities of groundwater are available, with a total of 126 main layers.

The contribution of the agricultural sector to national exports:

Through the following table, the contribution of the agricultural sector in enhancing national exports becomes evident by evaluating the percentage of agricultural exports in relation to total exports.

Table No. (01): Value of agricultural exports (in million dollars) during the period (2001-2017)

Years	Agricultural Exports	Total exports	Years	Agricultural Exports	Total exports
2001	151.47	19084.86	2010	208.51	45189.34
2004	153.93	32912.86	2015	648.1	34796
2007	180.85	56844.86	2017	756.8	35191.1

Source: Amina Abbas, Asmaa Hamdoun, (2023), The Impact of the Agricultural Sector on Economic Growth under the Application of Economic Diversification Strategies in Algeria: A Quantitative Study for the Period (1990-2019), Journal of Business Sciences, Volume 22, Issue 1, University of Djillali Liabes - Sidi Bel Abbes, Algeria, p. 274.

Through the table, we observe that the value of agricultural exports has continuously increased throughout the study period. It has moved from \$151 million in 2001 to \$756 million in 2017, which represents a growth rate of 400%. This can be attributed to various development programs that have been invested in. However, it is noteworthy that the percentage of agricultural exports coverage of total exports is very low. It has not been able to exceed a threshold of 2.14% at maximum. This is despite all the implemented reforms in the sector.

The development of dry legume production in Algeria:

The current status of dry legumes in Algeria can be diagnosed through the following table as follows:

Table (02) Evolution of Area and Production of Dry Pulses Group in Algeria for the Period (1990-2018).

Production growth rate %	Production (Tons)	Area (hectares)	Year	Production growth rate %	Production (Tons)	Area (hectares)	Year	Production growth rate %	Production (Tons)	Area (hectares)	Year
11.13	72435	74403	2010	-80.10	21966	63270	2000	-	35099	92162	1990
8.20	78904	87473	2011	43.01	38541	59600	2001	44.32	63039	104555	1991
6.48	84374	85465	2012	11.68	43637	62287	2002	0.59	63410	102457	1992
12.03	95913	85156	2013	24.58	57858	68147	2003	-31.60	48187	100930	1993
-2.28	93779	90652	2014	0.45	58117	72207	2004	-25.66	38347	111292	1994
7.22-	87466	85220	2015	-23.05	47230	69392	2005	7.59	41498	106055	1995
13.02-	77387	77564	2016	46.41	88139	67072	2006	39.04	68070	90367	1996
27.90	107326	100576	2017	-75.70	50164	63650	2007	-145.64	27711	159900	1997
22.06	137710	111968	2018	-24.61	40256	61374	2008	38.60	45135	77615	1998
				37.46	64373	67617	2009	-14.09	39560	72530	1999

Source: Makhoulfi Zoubair, (2022), An Analytical Econometric Study of the Impact of the Agricultural Sector on Economic Growth in Algeria compared to Some Arab Countries during the Period (1990-2018), PhD Thesis in Economic Sciences, Specialization: Economics and

Management of the Enterprise, Faculty of Economics, Commercial Sciences and Management Sciences, University of Algiers 3, Algeria, p. 132.

Through the table above, it is noticeable that the production of dry legumes in Algeria is characterized by instability and a tendency towards decline. Production decreased from 35,099 in the year 1999 to 27,771, with a rate of 145%. This trend continued until the end of the 1990s. However, starting from the year 2000, the digital indicators related to area, production, and productivity showed a relative increase overall. This can be attributed to the attention given by agricultural policies such as the National Agricultural Development Plan and others. In 2006, it achieved the highest growth rate of 46.41%. From 2010 to 2018, production remained stable and experienced improvement, with growth rates ranging between 11% and 27%, with a slight decrease in the growth rate during the period of 2014-2016. However, the real value of this important food commodity still requires further efficiency. In the following points, we will briefly discuss the most important crops in this category .

The production of broad beans occupies the first position in the overall legume group. In the year 2004, the area of broad beans accounted for approximately 51% of the total area.

As for chickpeas, it ranks second in terms of area after broad beans. The percentage of chickpea area to the total legume area in 2004 was approximately 32%. The area of chickpeas experienced a decline during the period from 1990 to 2000.

Lentils, on the other hand, rank third in terms of area after broad beans and chickpeas, accounting for approximately 13% of the total area. In 2001, the production of lentils reached around 36,740 quintals, and by 2004, it reached 73,710 quintals. The production of lentils accounted for 12.7% of the total production of dry legumes. The productivity of lentils showed significant fluctuations during the period from 1990 to 2000, but it began to trend upwards since 2000, reaching 2.2 quintals per hectare in that year and reaching 7.9 quintals per hectare in 2004.

The agricultural sector in the Public Investment Program (2001-2019):

The agricultural sector's share in the economic revitalization support policy from 2001 to 2004 amounted to a financial envelope of 55.9 billion dinars, distributed over the years of this period, accompanied by a set of development plans, most notably the National Agricultural and Rural Development Plan (PNDAR) in 2002, which aimed to :

Expand suitable agricultural areas through reclamation.

Enhance the competitiveness of agriculture and integrate it into the global economy.

Promote products with comparative advantages for export.

During the complementary program for growth support (2005-2009), the agricultural sector's share in this period amounted to 300 billion Algerian dinars, in order to continue supporting the National Agricultural and Rural Development Plan through the implementation of a range of measures,

including:

Establishing and developing agricultural investments.

Creating integration between producers and food industries.

Promoting agricultural exports.

During this period, Law 08-16 was issued, which included agricultural guidance aimed at:

Contributing to improving the level of food security through agricultural production.

Ensuring the supervision and regulation of this sector, enabling it to increase its productivity and competitiveness while ensuring the protection of land and the proper use of water for agricultural purposes.

Establishing a legislative framework that ensures the economic and social benefits of agricultural development.

Continuously implementing the principle of state support for plant and animal agricultural development.

During the five-year program (2010-2014), the share of the agricultural sector increased to 1,000 billion Algerian dinars to continue supporting actual production of consumer goods, especially the introduction of modern technology to this sector, in addition to developing and expanding the agricultural irrigation network. As stimulating measures in this sector, the government, in 2010, released loans, such as the "Rafiq" loan without interest, and converted a range of measures aimed at supporting agricultural development into financial grants ranging from 20% to 30% for the purpose of seed and fertilizer acquisition, animal breeding development, tree planting, acquisition of agricultural machinery, and equipment for product collection and processing (milk collection, oil mills).

In the second five-year program (2015-2019), with Algeria entering a difficult economic phase due to the significant decline in oil prices by the end of 2014, the national authorities sought to implement a set of strategies and mobilize all necessary means to confront the crisis of lower oil prices, as reflected in the fifth five-year program (2019-2015). One of the main objectives of this program, especially in the agricultural sector, was the necessity of transforming agriculture into a real driver of comprehensive economic development by intensifying production in the food agricultural sector, which would strengthen the productive foundations to maintain food security. One of the key measures in the government's program for this period was allocating approximately 300 billion Algerian dinars to this sector. The main implementation mechanisms for this plan in the agricultural sector were as follows:

Developing agricultural irrigation by increasing the irrigated areas by 1,000,000 hectares.

Strengthening agricultural mechanization by increasing harvesters, tractors, and related equipment.

Intensifying fertilization operations to meet the estimated needs of 50,000 tons annually.

Increasing the production of broad crops, legumes, green vegetables, forage legumes, tree seedlings, and vineyards.

Regulating agricultural products by expanding storage capacities.

Developing livestock breeding and improving the production and quality of animal feed, in addition to providing livestock breeding tools and equipment, and facilities for milking cows and calving.

Economic Diversification Model in Algeria 2016-2030:

The economic diversification model can be summarized as follows :

Phase 01: 2016-2019 - Research and launch of a new development policy aimed at the gradual growth of value-added in various economic sectors.

Phase 02: 2020-2025 - A transitional phase to address various macroeconomic indicators and create major balances.

Phase 03: 2026-2030 - The phase of economic stability.

During these phases, the following actions are taken :

To achieve the goals of economic diversification in Algeria during the specified period, the following actions would be undertaken:

Achieving a significant increase in gross domestic product (GDP) by 2.3 times.

Doubling the contribution of the industrial sector to wealth creation, value-added, and output by the end of 2030 to reach 10%.

Modernizing the agricultural sector to contribute to food security, increase its contribution to GDP, and boost agricultural exports.

Energy transition as a crucial objective,.

Diversifying exports beyond the hydrocarbon sector, supporting and encouraging investments outside the hydrocarbon industry.

Supporting public-private partnerships to foster collaboration between the public and private sectors.

Narrowing the trade gap between exports and imports by increasing exports and reducing imports.

Reviewing fundamental laws, particularly those related to business practices, and revising industrial policies.

Conclusion:

Based on what has been presented in this research paper, it can be said that focusing on the agricultural sector in Algeria has become an inevitability and a necessity that needs to be further uplifted and supported through the formulation of more implementable national strategies. This sector holds significant importance in achieving self-sufficiency, food security, unemployment absorption, poverty alleviation, and addressing the resulting health, economic, and social problems. Therefore, the development of the agricultural sector in Algeria has become obligatory as it works towards solving agricultural issues and providing solutions with minimal damage and risks, while also contributing to economic diversification. Despite the supportive national strategies for agricultural development, the contribution of agriculture in recent years remains weak compared to other sectors.

Testing Hypothesis:

Hypothesis 1: The economics of agricultural production, farm management, and agricultural resource economics are among the most important areas of agricultural economic activity. The concept of economic diversification in the agricultural sector is manifested through scientific and technological advancements such as mineral fertilizers and advanced irrigation mechanisms, which contribute to improving the conditions of agricultural practices and achieving self-sufficiency and food security. This hypothesis is valid based on the definitions provided in the field of agricultural economics and economic diversification.

Hypothesis 2: The agricultural sector in Algeria contributes to economic development by increasing the share of agriculture in employment generation and value-added creation, as well as economic diversification, especially in recent years. However, its contribution remains weak compared to other sectors such as energy, services, and industry. This hypothesis is valid, as evident from the statistics presented in the study.

Hypothesis 3: The policy of supporting plastic and desert agriculture is among the most important agricultural policies in Algeria in recent years. This hypothesis is also valid, as Algeria places significant importance on desert agriculture due to its vast territory.

Findings:

Through this study, we have concluded that:

National strategies supporting the development of the agricultural sector are still ineffective compared to other sectors.

Although agriculture has contributed to achieving a growing percentage, its contribution remains weak compared to the objectives and other sectors.

Working in the agricultural sector still does not attract investors to a large extent, necessitating the encouragement of investment in the agricultural sector by countries through the provision of

necessary facilitations.

Animal production is still underdeveloped in Algeria.

Recommendations:

Work on diversifying the financial sources of agricultural sector diversification by establishing specialized banks and financial institutions, thus reducing the financial burden borne by the government.

Encourage investment in the agricultural sector by continuing to provide financial and material support to investors, such as continuing the policy of tax exemptions applicable to the agricultural sector.

Strengthen this strategic sector through all available resources, both financial and human. This includes revitalizing the agricultural region, preserving natural resources, and promoting sustainable agricultural development by utilizing modern scientific qualifications in the field of agriculture and optimizing the use of modern technology.

Prospects:

Based on the findings of the study, it has opened up research prospects that are considered very important topics for further investigation. These prospects can be summarized as follows:

The role of agricultural loans in economic development.

The role of agricultural development and rural renewal programs under current policies in achieving these objectives.

JEL classifications: O13, L25, Q14, Q18.

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