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Food security and self-reliance

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Abstract:

Food security refers to the necessity to provide what individuals need in terms of necessary materials represented in food products, which may be saving on cooperation with other countries or by self reliance only. Where the human being is linked to food security and every lifeline and continuity of states is the strongest part in comprehensive security to achieve self sufficiency to embody the continuity and independence of states, and vice versa in terms of dependency and limited independence in decision making authority, as food security is used as political pressure card on states to control the capabilities of the suffering peoples from a food dependency. Most developing countries have shown increasing concern for food security as a means to ensure improved nutritional standards for their populations and, consequently, to avoid crises and food shortages. Algeria is among the countries facing a significant deficit in food security. Attention to this issue has intensified, particularly as the country's heavy reliance on food imports has become a defining feature of the Algerian economy. This dependence has heightened Algeria's vulnerability, posing a serious threat to its economic stability.

Keywords: security, food, self sufficiency.

Introduction:

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This situation has compelled developing nations to seek effective solutions and implement policies aimed at reducing food dependency and achieving self-sufficiency through enhanced food security.

Accordingly, the central research question of this study is:

What are the effective policies for achieving food security in developing countries?

To address this research question, we begin by exploring the concept of food security. This is a relatively recent term, first emerging in the 1970s. It gained traction particularly in developing countries that experienced severe shortages in food production and reserves. The concept is context-dependent and shaped by the socio-economic conditions of each society. Various definitions of food security exist, each reflecting different perspectives on the issue. These definitions can be summarized as follows:

Definitions of Food Security

First Definition:

Food security is a condition in which self-sufficiency in food is achieved locally, based on the state's ability to meet the nutritional needs of all individuals through domestic production.²

According to this definition, the emphasis is on ensuring that all individuals have access to adequate food to satisfy their nutritional needs through local production. However, this definition has been criticized for the following reasons:

It equates food security with self-sufficiency, although there is a significant difference between the two concepts. Self-sufficiency relies solely on domestic production without resorting to imports, whereas food security concerns a state's ability to provide sufficient food through both domestic production and imports.

Second Definition:

Food security refers to the ability of a state to secure the necessary foreign currency to meet its food import requirements.

This definition emphasizes the state's capacity to obtain the foreign exchange needed to purchase food from international markets in order to cover shortages in domestic production.

Third Definition:

Food security is the state's ability to provide the necessary level of food supply through a combination of domestic production and imports, relying on national resources derived from export revenues.

This definition is characterized by the regular availability of food throughout the year, which necessitates the provision of a strategic food reserve to address emergency food crises. Such reserves are essential to prevent developing countries from being subjected to political pressure by food-exporting developed nations.

From the aforementioned definitions, it becomes clear that food security has been subject to several criticisms, mainly due to their failure to encompass all its dimensions. Therefore, a more comprehensive definition would be: the state's ability to ensure an adequate level of food availability for individuals who are unable to access it through either domestic production or imports.³

Food security is an integral part of social security, economic security, and political stability. It also falls under the broader framework of economic and social development in its various dimensions.

Determinants of Food Security

A. Internal Factors:

² -Mohamed El-Sareiti, Food Security and Economic Development*, New University Publishing House, Alexandria, 2000, p. 10.

³ -Abd Al-Sahib Al-Alwan, Issues of Arab Agricultural Development and the Requirements of Food Security, Proceedings of the International Conference on Arab Economic Security and Contemporary Economic Developments, Syrian Scientific Society, Damascus, 2002, p. 117.

These are factors related to the internal conditions of the state, and they include:

- Population size and the level of their food needs.
- Domestic food production capabilities.
- Real income levels in society and the way income is distributed among individuals.

B. External Factors:

These are linked to the external economic environment of the country, including:

- The availability of foreign exchange earnings through exports.
- The availability of food in global markets and the degree of price stability.

The availability of food aid and the facilities provided by international organizations.

In addition to being an economic commodity, food is considered—within the framework of food security—a strategic good, governed by considerations beyond mere supply and demand. As an essential product that cannot be dispensed with, the state must ensure its availability to all consumers, including those who are unable to afford its economic price⁴. To achieve this, the state may absorb the difference between economic and social prices through budget subsidies, or provide financial aid or tax exemptions to food producers, on the condition that they sell food to consumers at reduced prices aligned with their purchasing power.

Given its strategic nature, food may also acquire a political price, particularly when a country is unable to meet its food needs through domestic production and relies heavily on imports. In such cases, food may be sold at prices far above its economic value due to external dependencies.

Based on the above, the concept of food security includes the following elements:

- A large proportion of food supply should come from domestic production rather than from imports.
- Consistent access to adequate food for all people at all times.
- Food must be affordable and accessible to all segments of the population.

II. National Policies for Achieving Food Security in Developing Countries

Developing countries can achieve their targeted level of food security through the implementation of a variety of national policies, which include:

1-Economic development policy

The economic development policy is connected to the comparative advantages available to developing countries. If a country has comparative advantages in producing certain food commodities, then economic development primarily depends on agricultural development. Conversely, if the country lacks these advantages, it works on generating sufficient foreign exchange necessary for food imports through industrial development.⁵

Agricultural development policy involves income redistribution aimed at creating changes in agricultural productivity. This is achieved by increasing the volume of advisory services directed toward the agricultural sector. It can be implemented through horizontal agricultural development, by expanding infrastructure investments such as irrigation and drainage programs to increase reclaimed land, or through vertical agricultural development by employing advanced and effective production methods.

Industrial policy consists of redistributing income with the goal of improving industrial productivity. This is achieved by increasing investments directed to the industrial sector, thereby increasing industrial

⁴ -Mohamed El-Sareiti, Food Security and Economic Development, previously cited, p. 72.

⁵ - Mohamed Fawzi Abu Al-Saud, Introduction to Resource and Environmental Economics, Faculty of Commerce, Alexandria University, 2005, p. 288.

exports. The financial resources obtained from these exports allow the country to import the required food, leading to a reduction in the food deficit and achieving the targeted level of food security.

Despite the importance of industrial development policy, it yields fewer results than agricultural development due to the nature and scale of the required capital.

2-Food production development policy

The state focuses on the agricultural sector by increasing the areas allocated for the production of food commodities, as well as developing livestock and fisheries production in order to achieve food self-sufficiency. This approach is applied particularly in cases of instability in international economic relations or when there are international monopolies over food, which limit the possibility of food imports. It requires the availability of comparative advantages in food production to avoid hindering the optimal use of economic resources, whereas the opposite applies when such comparative advantages are absent.

3. Price Policy:

Through this policy, the state ensures the continuous availability of food commodities throughout the year, especially for the poor segments of society who cannot access food otherwise, by influencing or subsidizing food prices.

4. Food Rationing Policy:

Food rationing policy involves regulating consumption levels according to available resources and nutritional needs appropriate to societal conditions, based on international standards, with the aim of achieving food security.

Among the most important considerations in implementing food rationing policy are:⁶

- Modifying food consumption patterns by increasing the cost of satisfying imprudent consumption habits.
- Rationalizing food imports by limiting them to only essential food commodities that are unavailable in sufficient quantities locally, ensuring acceptable quality and moderate prices.
- Intensifying food awareness programs through various media outlets to influence citizens' behavioral patterns with the aim of rationalizing their food consumption.
- Reducing wasteful consumption by high-income individuals, which leads to an imbalance in dietary patterns, by imposing high taxes on luxury food items.

Third: International Approaches to Address the Food Security Problem

Developed countries, in cooperation with international efforts, can help alleviate the severity of the food deficit in developing countries, thereby contributing to achieving the targeted food security. These approaches include:

- Establishing a global strategic food reserve.
- Securing food import bills.
- Food aid programs.
- Agricultural and food integration.

a) Establishing a Global Strategic Food Reserve:

⁶ -Samuel Abboud, Five Fundamental Problems of a Developing World, Diwan of University Press, Algeria, 1999, p. 93.

This approach was endorsed by the governments of the member states of the Food and Agriculture Organization (FAO) in 1975. When adopting this international approach, the following considerations must be taken into account:

- Priority should be given to achieving food security, followed by determining the optimal size of the reserve; as the size of the strategic reserve increases, so do the associated costs.
- There is a direct relationship between the size of the strategic reserve and the level of food security support.⁷
- The strategic reserve must be utilized in the event of a deficit or any other disaster to ensure the regular flow of food in both local and global markets.
- Regional food reserves should be established to achieve collective food security.

b) Securing the Food Import Bill:

This approach represents a form of food facilitation provided by the International Monetary Fund (IMF), which advances developing food-importing countries a portion of the foreign exchange required when their food import bills exceed the normal levels. However, most developing countries do not benefit significantly from this international approach.

c) Food Aid:

Through this approach, developed countries with food surpluses provide food aid to developing countries suffering from food deficits, usually in the form of grain. However, such aid covers only a small fraction of the food deficit in developing countries and is often subject to political considerations.⁸

For food aid to effectively contribute to achieving food security in developing countries, several conditions must be met, including:

- Food aid should not be affected by fluctuations in global market prices.
- Adequate distribution channels must be available to absorb increased food aid.
- Additional resources generated from the sale of food aid should be used to support agricultural development by assisting local food producers and improving agricultural infrastructure.
- The distribution of additional food supplies should be focused on the poor.

d) Agricultural and Food Integration:

Agricultural and food integration among developing countries with aligned economic interests represents an international approach to addressing the problem of food deficits. This integration is based on the following pillars:

- Integration of natural, financial, and human resources contributing to food production.
- Agricultural trade exchange within a common market specifically for agricultural products of developing countries.
- Integration in providing agricultural development requirements through the advancement of agricultural technologies and the provision of agricultural development inputs.

Agricultural and food integration relies on production specialization, which aims to achieve optimal utilization of the natural resources available in each country by producing commodities in which they have a comparative advantage.

⁷ - Mohamed El-Sareiti, Food Security and Economic Development, previously cited, p. 283.

⁸ - Mohamed Fawzi Abu Al-Saud, Introduction to Resource and Environmental Economics, previously cited, p. 178.

For this integration to succeed, developing countries must establish mechanisms that enable sound relationships benefiting all parties involved and address all obstacles hindering its progress.⁹

Fourth: The Reality of Food Security in Algeria

The agricultural sector in Algeria has undergone several reforms during the last two decades by implementing the necessary tools and mechanisms to develop it and address challenges related to meeting the increasing national demand for agricultural, especially food products, and adapting to the transition towards a market economy and international competition under globalization. Among the main objectives of the national plan are:

The main objectives of agricultural and rural development over recent years have been to ensure food security and to support stakeholders in developing their productive capacities and modernizing agricultural investments.

The agricultural sector has achieved encouraging results, evidenced by improvements in both animal and crop production.¹⁰

Conclusion:

Food deficit has become an economic and social problem with political dimensions related to national security. Increasing dependence on food imports from global markets exposes the state to numerous risks, as food has become a strategic weapon to pressure importing countries, impose conditions, and achieve political objectives and demands. This necessitates adopting a comprehensive strategy for agricultural development aimed at achieving the highest level of self-sufficiency and reducing the volume of food imports.

Accordingly, we propose several recommendations summarized as follows:

- Greater attention should be directed towards the agricultural sector by increasing the overall public investment expenditure allocated to agriculture and rural areas.
 - Encourage the private sector to invest in the agricultural and food sectors, and create a favorable investment climate to attract direct foreign investment in agriculture.
 - Adopt policies to support agricultural production inputs to encourage farmers to use advanced production inputs such as improved seeds, chemical fertilizers, pesticides, and equipment.
 - Provide agricultural credit on favorable terms and support interest rates on agricultural loans, and separate agricultural financing from commercial financing due to the specific nature of the agricultural sector.
 - Establish an organic link between food security and water security, considering them effective means for achieving sustainable agricultural development. This includes preparing policies and strategies for developing surface and groundwater resources and expanding the use of unconventional water sources in agriculture.
 - Improving productivity and economic efficiency in the agricultural sector to keep pace with international competition.
 - The necessity of integrating the agricultural sector into the national economy and ensuring its effective contribution to economic growth.
 - The need to develop a sustainable agricultural development strategy aimed at achieving the highest level of self-sufficiency within the framework of Arab cooperation.

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⁹ - Abdel-Sahib Al-Alwan, Issues of Arab Agricultural Development and Food Security Requirements, previously cited, p. 123.

¹⁰ - National Economic and Social Council, University of Annaba, 2003, p. 35.

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