



Ruralization, Agricultural Production Structures and Food Security in Islamic Countries

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Abstract

Purpose- Islamic countries are generally characterized by rural lifestyles and relatively young populations. Despite the global trends of accelerated urbanization and population aging, the traditional structure of rural settlement in these countries has remained largely unchanged. The present study aims to examine the structural factors influencing food security in Islamic countries by analyzing the extent and distribution of rural populations as the key contributors to food security, as well as the demographic composition and environmental structures that shape agricultural production.

Materials, Methods, and Approach- The development strategies of many countries worldwide are based on the quality, efficiency, and spatial distribution of rural populations. The proportion of the rural population in relation to employment distribution across economic sectors and its contribution to gross domestic product (GDP) are of critical importance to policymakers in both developed and developing nations. The research employs a descriptive-analytical method, utilizing reliable international data sources and global organizational statistics. The statistical population includes 51 Islamic countries, and the data are classified according to the characteristics and attributes of the study population within the research topic.

Findings- First, Islamic countries generally possess rural structures and youthful populations. Second, significant disparities exist in settlement and rural habitation patterns across Islamic countries. Approximately 60% of the rural population of Islamic countries reside in just six nations -Pakistan, Indonesia, Bangladesh, Nigeria, Ethiopia, and Egypt- whereas in six others- Kuwait, Bahrain, Qatar, Djibouti, the Maldives, and Brunei Darussalam- the total rural population does not exceed one million people. Finally, the capacity for agricultural production and food security across Islamic countries is generally fragile. Twenty-six countries have less than 5% of arable land, and twenty-seven countries exhibit an average agricultural value-added of less than USD 5,000 per farmer, rendering them effectively food-insecure and dependent on imports.

Keywords: Food security, Islamic countries, Rural population, Agricultural economy, Rural economy.

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1. Introduction

According to data from the United Nations and affiliated population research institutions, in 1960 the global rural population was approximately 2 billion people, accounting for 66.4% of the world's total population. By 2020, rural areas were home to 3.4 billion people, representing 29.4% of the global population (Table 1). International reports from 2020 indicate that 1.2 billion rural inhabitants lived in South Asia, 938 million in East Asia, 656 million in Sub-Saharan Africa, 261 million in Oceania and peripheral archipelagos, 123 million in Latin America, 113 million in the European Union, 78 million in other parts of the Eurozone, and 64 million in North America (United Nations Population Studies Office Report, 2020).

International data show that the most significant declines in the proportion of the global rural population occurred between 2010–2020, followed by 2000–2010. The global rural population trend over the past six decades reveals an accelerating decline in rural proportions, primarily driven by urban migration and the decreasing rate of rural population growth. Nonetheless, rural populations in developing countries increased by over 100 million people during the decade leading up to 2020, reaching approximately 700 million. In fact, much of the net, gradual growth in global rural population has taken place in developing regions. According to official international data, the rural population of developing countries was about 180 million in 1950, rising to approximately 500 million in 2000 (Table 2).

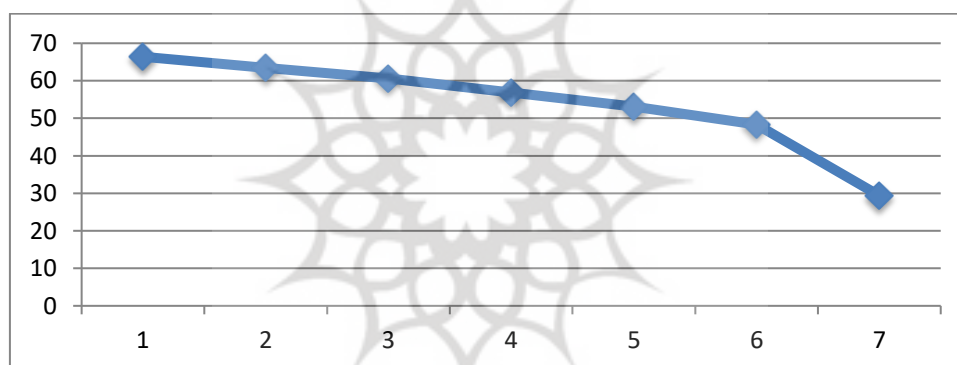


Figure 1. Trend in the Ratio of the Global Rural Population

Table 1. Trends in the Rural Population of Developing Countries Over the Past Seventy Years

Row	Year	Population (millions)
1	1950	180
2	1960	217
3	1970	267
4	1980	325
5	1990	400
6	2000	498
7	2010	598
8	2020	701

Source: United Nations Population Studies Office Report, 2020.

The rural population of each country plays an essential role in the structure of agriculture and the provision of food security. In Islamic countries, food security largely depends on the structure of rural society and agricultural infrastructure. Evidently, if an Islamic country has a higher capacity for grain production, it creates opportunities for export, whereas the lack of such capacity leads to grain imports. Therefore,

considering the level of production, imports, or exports of grains in Islamic countries is crucial for understanding their level of food security.

In this regard, studies indicate that in most research and investigations related to food security conducted by international organizations, attention is given to the production of seven major cereal crops—including wheat, rice, barley, maize, and other edible grains—referred to as *cereals*. This

term differs from *grains*, which specifically denotes maize and wheat plants (for example, see reports by FAO, the World Bank, the Global Food Security Index, UNESCO, and the official Global Food Security website). Nevertheless, annual reports listing global rankings of countries in terms of food security emphasize 18 key indicators for achieving food security. These indicators include nutritional standards, urban absorption capacity, food consumption as household expenditure, food loss, protein quality, agricultural import tariffs, dietary diversity, agricultural infrastructure, the proportion of the population living below the global poverty line, GDP per capita, food safety net programs, access to financial resources, agricultural research expenditure, administrative corruption, political stability risk, adequacy of food supply, and food safety ([Global Food Security Index, 2022](#)).

However, it appears that indicators such as the number of agricultural beneficiaries, the amount or per capita of production, arable land per capita, cereal production per capita, soil quality, and the level or share of cereal imports are serious variables that can be used in evaluating food security ([Safari, 2023](#)). According to the [Global Food Security Index](#), countries such as Qatar, the United Arab Emirates, Bahrain, and other southern Persian Gulf nations—which, on the one hand, lack adequate levels of agricultural and cereal production, arable land, and rural working populations, and on the other hand, possess high capacities for importing and providing food for their urban populations due to income from underground resources—rank higher in food security than many cereal-producing countries. This demonstrates major shortcomings in current ranking systems. For this reason, the present study, by reviewing global food security indicators and the ranking of Islamic countries, aims to analyze and classify the food security situation in Islamic nations using a composite approach that considers additional parameters such as arable land per capita and annual cereal imports. Based on this framework, the following research questions are posed:

1. How do rural population capacity and agricultural capabilities contribute to the GDP and food security of Islamic countries?
2. What is the status of Islamic countries according to composite food security indicators?

2. Research Theoretical Literature

Food security refers to the access of all individuals in a society, at all times, to sufficient and healthy food for an active and healthy life, in which household income plays a key role. Food security is achieved when the per capita household food basket is properly selected and prepared, and factors such as food production or imports, public education on healthy nutrition, and national-level policymaking are considered important in ensuring its components. The concept of food security differs from that of *food safety*, which emphasizes the provision of healthy and uncontaminated food; in fact, food safety is a subset of food security.

According to the World Bank, food security is defined as the access of all people to sufficient food for a healthy life throughout their lifetime. This definition is built upon three main elements: food availability, food accessibility, and stability of access. Food availability concerns domestic production or imports; food accessibility refers to the physical and economic access of households to food; and the stability of access emphasizes consistent and reliable availability of food for all individuals.

Based on global organization estimates, 70 percent of global hunger exists in rural areas. Although agricultural and food production takes place in rural regions, per capita access to food in rural areas is lower than in urban regions. Moreover, studies have shown that countries with greater governmental investment in agricultural growth have experienced less hunger and poverty, and higher levels of food security.

At the World Food Summit held in 1996, the leaders of all participating countries agreed that increased investment in agriculture and for farmers enhances rural and farmers' access to healthy food and improves food availability and accessibility indicators. Therefore, the summit concluded that, first, public and private investment in agricultural development should be directed toward reducing global hunger by half; second, agricultural growth—rather than industrial growth—should be considered a key factor in reducing poverty and hunger; and finally, food security should be defined as a major goal of planning in the third millennium ([Kalantari, 1994](#); [Hoquqi, 1998](#); [FAO, 1992](#)).

In contrast to food security, *food insecurity* refers to insufficient access to adequate food. Adequate food meets human nutritional needs; good food provides

the nutrients necessary for the body's organic functions; healthy food contains essential vitamins, nutrients, and energy; and culturally appropriate food refers to food that is acceptable and familiar within the community. Thus, availability, physical and economic accessibility, utilization, and stability of food supply are four key pillars of food security (Kavenei, 2023).

The *Food Security Index* measures a country's ability to provide food for its citizens, based on three fundamental factors: affordability, availability, and quality (Wikipedia, Global Food Security Index). Given the importance and credibility of food security, it has become one of the main pillars of national security. Countries, therefore, develop different strategies for achieving it, depending on factors such as culture, history, consumption patterns, consumer preferences, production resources, natural resources, comparative advantages, policymaking, and production planning (Mehr News Agency Report No. 5491608).

According to the Research Institute for Agricultural Planning, Economics, and Rural Development of the Ministry of Agriculture Jihad, countries generally follow seven strategies to achieve food security: (1) support, service, and relief programs; (2) investment in markets and advertising; (3) identifying new resources and substitute products; (4) empowerment; (5) storage; (6) structural and institutional reforms; and (7) research and development.

In the European Union, food security policies in 2020 were defined around four main objectives:

ensuring the supply and consumption of safe and sustainable food, creating an innovative and resilient agricultural sector, preserving biodiversity and the environment while combating climate change, and providing food in both urban and rural areas (Moseley, 2009).

Accordingly, many countries—including several Islamic nations—have developed diverse programs to ensure food security in recent decades. These include expanding agricultural activities, preparing rural development plans, producing strategic crops, leasing international farmlands, diversifying cultivation, securing water resources, developing protein supply programs, and improving productivity in agricultural production (for further information, see Jafarvand et al., 2022; Safari, 2023; Afrakhteh & Hajipour, 2024; Riahi & Siyadati, 2022).

Numerous studies have been conducted on food security, particularly in recent years, some of which are summarized in Table 2. The present study differs from previous research in two fundamental aspects. First, the scale of analysis in this study is defined at the national and international level, whereas most previous studies have examined the issue at local scales. Second, the food security indicators used in this research differ from those commonly employed by international organizations; instead, this study seeks to critically review existing indicators and develop new composite indicators for classifying food security across Islamic countries.

Table 2. Recent Studies Related to Food Security

Authors	Year	Title	Findings / Results
Bagherzadeh Azar et al.	2017	Estimation of the National Food Security Level Using the New Global Food Security Index (GFSI)	Utilized macro-level data from the Food and Agriculture Organization (FAO), the World Bank, the Central Bank, the Budget and Planning Law, and the Ministry of Roads and Urban Development to assess food security, indicating an increasing trend with fluctuations in the country.
Veisi	2024	Evaluation of the Self-Sufficiency Strategy and Its Impact on Territorial Governance and Environmental Sustainability in Iran	Identified the pressure and threats posed by the self-sufficiency policy on Iran's biological and water resources, warning that its continuation endangers the social and economic life of many cities and villages.
Ghorbani	2024	The Impact of Macroeconomic Uncertainty on Food Security in Iran Using the Structural Vector Autoregression (SVAR) Approach	Developed a macroeconomic uncertainty index based on estimates of seven key macroeconomic variables, finding a long-term negative effect on food security.
Nikbakht-Dehkordi & Zeinalipour,	2024	Investigating the Opportunities and Challenges of Knowledge-Based Agriculture in Ensuring Sustainable Food Security	Highlighted the priority purchase rights to preserve agricultural lands in the member states of the European Union.
Sardouyi-Nasab	2024	Food Availability and Accessibility: Challenges and Solutions	Emphasized the ineffectiveness caused by resource instability and the lack of long-term policies in the agricultural sector as

Authors	Year	Title	Findings / Results
			major factors reducing domestic production and increasing import dependency.
Latifmanesh	2024	Food Security and Resource Management in Iran: Challenges and Solutions Based on Sustainable Technologies	Addressed the risks to food security, especially in rural and agriculture-dependent regions.
Ghaderi	2024	Examination of Food Security and Analysis of Its Challenges in the Rural Areas of Urmia County	Identified five fundamental challenges to food security: weaknesses in environmental policymaking, poor economic conditions, environmental hazards, cultural barriers and social change, and agricultural instability.

Source: Documentary Studies, 2024.

3. Research Methodology

The present study is descriptive-analytical in nature. Data collection in this research has been carried out through the use of official documentary sources at both domestic and international levels. To make an initial assessment of the list of Islamic countries, using reliable sources and based on the majority of Muslim populations, a list of 51 Islamic countries was compiled and recorded. Then, based on recent data from global statistical centers, rates related to demographic structure and settlement systems (rural and urban population ratios) were classified. Subsequently, data related to production, agricultural structures, and arable lands in Islamic countries, as well as indicators affecting food security rankings, were organized. Accordingly, the findings of the research were presented in five main areas:

1. Distribution and classification of the rural population in Islamic countries;
2. The share of the agricultural economy in the per capita Gross Domestic Product (GDP) of Islamic countries;
3. Classification of Islamic countries in terms of the ability of agricultural employment in GDP;
4. Agricultural production indicators and food security in Islamic countries;
5. Agricultural capability, production, and imports in Islamic countries.

4. Research Findings

4.1. Distribution and Classification of the Rural Population in Islamic Countries

According to existing and official sources, more than 50 countries in the world are recognized as Islamic countries, mostly located in Southeast Asia, the Middle East, and North Africa. In identifying Islamic countries, several points are noteworthy. First, the boundaries of the Islamic world form a connected region stretching from Morocco in North Africa to the Indian subcontinent, and from Central

Asia and Kazakhstan to East Africa, including several disconnected parts in South and Southeast Asia, Europe, and small Muslim-populated states (Momeni, 2010). In all these areas, some countries have a Muslim majority, while others have Muslim minorities. The term “Islamic world,” which probably first appeared in 1906 by Zuraymer in the book *The Mohammedan World of Today*, had previously been introduced by Muslim geographers during the Golden Age of Islam under various titles such as Islamic lands, Islamic territory, Muslim region, and Islamic countries (ibid). Second, the global Muslim population in 2006 was estimated at 1.362 billion, distributed across 204 countries. This population was, first, spread across 50 independent countries where Muslims made up between 50 to 100 percent of the total population; second, it existed as religious enclaves within certain geographical units in other countries; third, it formed significant population groups in European and American countries; and finally, it appeared as small groups scattered across other parts of the world (ibid). Third, the Organization of Islamic Cooperation (OIC) has 57 member states, some of which do not have a Muslim population exceeding 50 percent (OIC website, 2024). Therefore, countries with a significant Muslim majority are emphasized and were included in this research.

Based on demographic information from United Nations-affiliated centers in 2019 and 2020, among the 51 countries examined in this study, Indonesia, Pakistan, Nigeria, Bangladesh, Ethiopia, and Egypt are the six most populous Islamic countries, each with populations exceeding 100 million, while Bahrain, Djibouti, the Maldives, and Brunei Darussalam are the least populous, each with fewer than two million people (Appendix Table 1). According to the same data, the total population of these countries is nearly two billion, although not all of them are Muslim. Furthermore, the average population of Islamic countries is less than 40

million. Among these countries, 23 nations have a population growth rate exceeding two percent, and most of those with high growth rates are located in North and sub-Saharan Africa. The remaining Muslim countries have a growth rate below two percent, and five countries have either less than one percent growth or negative growth, which is noteworthy.

According to 2019 statistical data, Bahrain, Palestine, Lebanon, Qatar, Pakistan, Kuwait, and Nigeria are among the countries with high population density, while the Maldives, Libya, Mauritania, Kazakhstan, Mali, and Saudi Arabia are among those with low population density (ibid).

Despite the rapid trend of urbanization, the rate of rural population in Islamic countries remains relatively high. A high rural rate, however, does not necessarily mean that these countries have strong agricultural production capacity or food security. Some countries such as Ethiopia, Afghanistan, Burkina Faso, Tajikistan, Malawi, and Niger have more than 70 percent rural population. Following them are Uzbekistan, Bangladesh, Bosnia and Herzegovina, Pakistan, Tanzania, Chad, Sudan, Somalia, Sierra Leone, Kyrgyzstan, Guinea, Madagascar, the Maldives, Mali, and Yemen, where more than 50 percent of the population lives in rural areas. In total, 21 Islamic countries still have higher rural population rates than urban ones.

In contrast, in countries such as Algeria, Iran, Brunei Darussalam, Turkey, Djibouti, Iraq, Saudi Arabia, Oman, Palestine, Libya, Malaysia, and Morocco, there is a rapid trend of urbanization, and the rural population rate is sharply declining to below 30 percent. Additionally, in several other countries such as Jordan, the United Arab Emirates, Bahrain, Qatar, Kuwait, and Lebanon, the rural population rate is below 15 percent, and in some cases, close to zero (Table 4).

According to official data, Afghanistan, Pakistan, Bangladesh, Ethiopia, Egypt, Sudan, Tanzania, Niger, Burkina Faso, Malawi, Chad, Guinea, Kyrgyzstan, and the Maldives are the 14 Islamic countries with the highest rural population ratios. In contrast, Lebanon, Jordan, and the six Gulf states of Saudi Arabia, the United Arab Emirates, Qatar,

Oman, Kuwait, and Bahrain have the lowest rural population ratios and highest urbanization rates among Islamic countries. The average rural population rate among Islamic countries is about 44 percent, while the average urban rate is about 56 percent. The rural population rate among Islamic countries with more than 30 million people is around 47 percent, and among those with over 80 million people, it exceeds 50 percent. The average rural population rate among Muslim countries with fewer than 10 million people is approximately 32 percent, and among the six Gulf states, it is close to 10 percent. In fact, large-population Islamic countries are mainly rural-based societies, while the Gulf states represent urban-centered societies (ibid). Out of the total 1.984 billion people living in Islamic countries, approximately 1.011 billion (or 51 percent) are rural dwellers, which indicates that rural and nomadic lifestyles remain predominant in the structure of Islamic societies.

Among Islamic countries, Pakistan, Indonesia, Bangladesh, and Nigeria together account for about 45 percent of the rural population of the Islamic world, and if Ethiopia and Egypt are added, this share reaches around 60 percent. In contrast, in Kuwait, Bahrain, Qatar, Djibouti, the Maldives, and Brunei Darussalam, the total rural population does not exceed one million people (ibid).

According to 2019 data, 16 Islamic countries are experiencing negative rural population growth, while only three countries have negative total population growth. Some countries with high rural population growth rates (above 3 percent) are small in size and population.

Among the 18 Islamic countries with populations exceeding 30 million, the average rural population growth rate is 1.6 percent, indicating the persistence of rural population structures in these countries. Regarding the aging index, Islamic countries are generally youthful societies, and apart from 14 countries where the elderly population exceeds 7 percent, the rest are predominantly young and cannot be classified as aging nations. Particularly, among the 18 Islamic countries with populations above 30 million, the proportion of elderly people is less than 5 percent (Tables 3 and 4).

Table 3. Classification of Islamic Countries Based on Population (2019)

Row	Group	Islamic Countries
1	Group 1: Countries with a population of over 100 million	Ethiopia, Indonesia, Bangladesh, Pakistan, Egypt, Nigeria
2	Group 2: Countries with a population between 50 and 100 million	Iran, Tanzania, Turkey
3	Group 3: Countries with a population between 30 and 50 million	Uzbekistan, Afghanistan, Algeria, Sudan, Iraq, Saudi Arabia, Malaysia, Morocco, Yemen
4	Group 4: Countries with a population between 15 and 30 million	Burkina Faso, Chad, Côte d'Ivoire, Senegal, Syria, Somalia, Kazakhstan, Madagascar, Malawi, Mali, Niger
5	Group 5: Countries with a population between 2 and 15 million	Azerbaijan, Albania, Jordan, United Arab Emirates, Bosnia and Herzegovina, Tajikistan, Turkmenistan, Tunisia, Sierra Leone, Oman, Palestine, Qatar, Lebanon, Libya, Kyrgyzstan, Kuwait, Guinea, Mauritania
6	Group 6: Countries with a population of less than 2 million	Bahrain, Brunei Darussalam, Djibouti, Maldives

Source: [The Global Economy, employment in agriculture, Country Ranking, 2020](#); [The World Bank, employment in agriculture, 2020](#)

Table 4. Classification of Islamic Countries Based on the Percentage of Rural Population (2019)

Row	Group	Islamic Countries
1	Group 1: Countries with a rural population above 70%	Ethiopia, Afghanistan, Burkina Faso, Tajikistan, Malawi, Niger
2	Group 2: Countries with a rural population between 50% and 70%	Uzbekistan, Bangladesh, Bosnia and Herzegovina, Pakistan, Tanzania, Chad, Sudan, Somalia, Sierra Leone, Kyrgyzstan, Guinea, Madagascar, Maldives, Mali, Yemen
3	Group 3: Countries with a rural population between 30% and 50%	Azerbaijan, Albania, Indonesia, Turkmenistan, Tunisia, Côte d'Ivoire, Senegal, Syria, Kazakhstan, Egypt, Mauritania, Nigeria
4	Group 4: Countries with a rural population between 15% and 30%	Algeria, Iran, Brunei Darussalam, Turkey, Djibouti, Iraq, Saudi Arabia, Oman, Palestine, Libya, Malaysia, Morocco
5	Group 5: Countries with a rural population below 15%	Jordan, United Arab Emirates, Bahrain, Qatar, Kuwait, Lebanon

Source: [The Global Economy, employment in agriculture, Country Ranking, 2020](#); [The World Bank, employment in agriculture, 2020](#)

4.2. The Share of Agricultural Economy in the Per Capita Gross Domestic Product of Islamic Countries

The per capita Gross Domestic Product (GDP) of Islamic countries is significant in several respects. First, it reflects the overall productive and economic capacity of these nations. When this indicator is compared with other indices, such as the share of agriculture in GDP, it becomes possible to determine the precise ability of Islamic countries to ensure food security. This comparison reveals the general status of these countries in terms of agricultural production, the efficiency of agricultural production systems, labor force capacity, agricultural economic structure, and, ultimately, the quality of water and soil resources in contrast to the extraction of underground resources. The variations among these factors illustrate the developmental patterns of Islamic countries over recent decades.

Accordingly, it can be stated that the first group—oil-rich countries located in the southern Persian Gulf—occupy high positions among Islamic countries. When the per capita GDP of these nations is compared with the global average, the results show that their rates are above the world mean. In addition to these six countries, Turkey, Brunei Darussalam, Kazakhstan, and the Maldives are among the distinguished nations in this regard and can be placed in the first tier of Islamic economies. The second group consists of seven countries generally classified as those with relatively high per capita GDP. A comparison of the population chart and GDP chart of Islamic countries indicates that, apart from Turkey and Saudi Arabia, there are almost no highly populated nations within the high-GDP-per-capita category. Instead, the majority of high GDP values belong to countries with small populations.

The third group includes 21 Islamic countries with relatively low per capita GDP, while the fourth

group—comprising 13 countries—is mainly located along the sub-Saharan African belt or consists of scattered states lacking significant underground resources (see [Table 5](#)).

Regarding the share of agriculture in the GDP—an indicator of the capacity of the agricultural economy in production and food security—Islamic countries can be categorized into several groups. Data analysis shows that the first group, consisting of nine countries, derives more than 25% of its GDP from the agricultural sector. These nations generally lack robust agricultural economies and have low per capita GDP, reflecting weak internal economies, limited productivity, and overall poverty.

The second group, comprising ten countries, obtains 15–25% of GDP from agriculture. In this category, dependence on agriculture and, to a considerable extent, on the rural economy is evident. However, these countries still cannot be regarded as economically strong or productive on a global scale—or even within the Islamic world. A key

feature of this group is the presence of some populous Muslim countries, such as Pakistan and Nigeria, that exhibit notable capacities for agricultural production and food security.

The third group includes sixteen countries with relatively high capacities in agricultural production, food security, and per capita GDP. Within this group, large-population Islamic countries such as Indonesia, Egypt, Turkey, and Iran are the most prominent examples.

Finally, the fourth group consists of sixteen countries in which the agricultural sector contributes less than 5% to the national GDP. These countries are generally characterized by high urbanization rates, scarcity of water and soil resources, or, conversely, wealth generated from non-agricultural sectors, such as the oil-rich Gulf states and others lacking structured agricultural systems.

Overall, a review of the agricultural sector's contribution to GDP in Islamic countries indicates that the location of many of these nations within the global dry and desert belt—from West Africa to Central Asia—has posed significant challenges to their effective agricultural production (see [Table 6](#)).

Table 5. Classification of Islamic Countries by Per Capita Gross Domestic Product (2019)

No.	GDP per Capita Group	Islamic Countries
1	Group 1 – Countries with per capita GDP above USD 9,000	United Arab Emirates, Bahrain, Brunei Darussalam, Turkey, Saudi Arabia, Oman, Kazakhstan, Qatar, Kuwait, Maldives
2	Group 2 – Countries with per capita GDP between USD 5,000 and 9,000	Albania, Iran, Bosnia and Herzegovina, Turkmenistan, Iraq, Lebanon, Libya
3	Group 3 – Countries with per capita GDP between USD 1,300 and 5,000	Azerbaijan, Jordan, Uzbekistan, Algeria, Indonesia, Bangladesh, Tunisia, Djibouti, Côte d'Ivoire, Senegal, Sudan, Syria, Palestine, Kyrgyzstan, Guinea, Malaysia, Mali, Morocco, Egypt, Mauritania, Nigeria
4	Group 4 – Countries with per capita GDP below USD 1,300	Ethiopia, Afghanistan, Burkina Faso, Pakistan, Tajikistan, Tanzania, Chad, Somalia, Sierra Leone, Niger, Madagascar, Malawi, Yemen

Source: [The Global Economy, employment in agriculture, Country Ranking, 2020](#); [The World Bank, employment in agriculture, 2020](#)

Table 6. Classification of Islamic Countries by Agricultural Share of GDP (2019)

No.	Group	Islamic Countries
1	Group 1 – Countries where agriculture accounts for more than 25% of GDP	Ethiopia, Uzbekistan, Tanzania, Chad, Sudan, Sierra Leone, Malawi, Mali, Niger
2	Group 2 – Countries where agriculture accounts for 15–25% of GDP	Albania, Burkina Faso, Tajikistan, Pakistan, Côte d'Ivoire, Senegal, Guinea, Madagascar, Mauritania, Nigeria
3	Group 3 – Countries where agriculture accounts for 5–15% of GDP	Azerbaijan, Afghanistan, Jordan, Algeria, Indonesia, Iran, Bosnia and Herzegovina, Bangladesh, Turkey, Tunisia, Kyrgyzstan, Lebanon, Malaysia, Maldives, Morocco, Egypt
4	Group 4 – Countries where agriculture accounts for less than 5% of GDP	United Arab Emirates, Bahrain, Brunei Darussalam, Turkmenistan, Djibouti, Syria, Somalia, Iraq, Saudi Arabia, Oman, Palestine, Kazakhstan, Qatar, Kuwait, Libya, Yemen

Source: [The Global Economy, employment in agriculture, Country Ranking, 2020](#); [The World Bank, employment in agriculture, 2020](#)

4.3. Classification of Islamic Countries by Agricultural Employment Capacity in Gross Domestic Product

In relation to the food security capacity of Islamic countries, one of the most significant indicators is the employment rate in the agricultural sector and its comparison with the share of agriculture in the Gross Domestic Product (GDP) of these countries. For this purpose, official international data from 2019 and 2020 have been used. It is evident that the employment rate in the agricultural sector alone does not necessarily indicate a country's capacity for food security unless it is assessed alongside other qualitative indicators. According to 2020 United Nations international data, the global average rate of employment in the agricultural sector is approximately 26 percent. Based on this criterion, Islamic countries can be classified into the following groups:

The first group includes African countries where more than 50 percent of the workforce is employed in agriculture. In some of these countries, such as Somalia (83%) and Niger (75%), the rate is particularly high. These nations are generally poor and less developed, with a low per capita GDP. The second group consists of Afghanistan, Sudan, Malawi, and Tajikistan, where more than 40 percent of total employment is concentrated in the agricultural sector. The third group includes countries with between 30 and 40 percent of their workforce in agriculture. Among these, Pakistan, Nigeria, and Bangladesh are notable due to their large populations. The fourth group comprises seven countries—such as Indonesia and Egypt—where the share of agricultural employment ranges from 20 to 30 percent. The fifth group includes countries with 10 to 20 percent of total employment in agriculture, among which Iran, Iraq, Turkey,

Algeria, and Malaysia are the most significant. Finally, countries with less than 10 percent agricultural employment—such as Saudi Arabia and the Gulf states—form the sixth group (see [Table 7](#)). Based on data regarding the agricultural share of GDP, Islamic countries can also be classified into three main categories:

1. The first group includes countries where there is a clear gap between the share of agricultural employment and the agricultural share in GDP. This indicates that the agricultural economy and environmental resources of these nations are insufficient to ensure sustainable or even relative food security. Twelve countries fall into this category: Ethiopia, Tanzania, Afghanistan, Madagascar, Côte d'Ivoire, Niger, Chad, Mauritania, Guinea, Azerbaijan, Somalia, and Djibouti, with a combined population of approximately 356 million people.
2. The second group consists of countries where the structure of agricultural employment and agricultural GDP share is relatively acceptable, though the quality of this relationship is not ideal. This group includes 16 countries (see [Table 8](#)), with a combined population exceeding 1.5 billion. Thus, it may be inferred that out of the roughly two billion inhabitants of Islamic countries (not including all Muslims worldwide), around 1.5 billion people enjoy at least a relatively adequate level of food security.
3. The third group comprises countries where the agricultural economy and, consequently, agricultural employment are marginal. These nations are largely dependent on external sources for their food security. This group primarily includes the oil-rich Gulf states, with an estimated total population of about 150 million ([Table 8](#)).

Table 7: Classification of Islamic Countries by Share of Employment in Agriculture (2020)

No.	Group	Islamic Countries
1	Group 1 – Employment share above 50%	Ethiopia, Tanzania, Chad, Somalia, Sierra Leone, Guinea, Madagascar, Mali, Mauritania, Niger
2	Group 2 – Employment share between 40% and 50%	Afghanistan, Sudan, Malawi, Tajikistan
3	Group 3 – Employment share between 30% and 40%	Azerbaijan, Albania, Bangladesh, Pakistan, Djibouti, Côte d'Ivoire, Morocco, Nigeria
4	Group 4 – Employment share between 20% and 30%	Uzbekistan, Indonesia, Burkina Faso, Senegal, Kyrgyzstan, Egypt, Yemen
5	Group 5 – Employment share between 10% and 20%	Algeria, Iran, Bosnia and Herzegovina, Turkmenistan, Turkey, Tunisia, Syria, Iraq, Kazakhstan, Lebanon, Libya, Malaysia
6	Group 6 – Employment share below 10%	Jordan, United Arab Emirates, Bahrain, Brunei Darussalam, Saudi Arabia, Oman, Palestine, Qatar, Kuwait, Maldives

Source: [The Global Economy, employment in agriculture, Country Ranking, 2020](#); [The World Bank, employment in agriculture, 2020](#)

Table 8: Classification of Islamic Countries by Level of Food Security (2020)

No.	Group	Islamic Countries	Approximate Population (Million)
1	Group 1 – Countries with unstable food security	Azerbaijan, Ethiopia, Afghanistan, Tanzania, Djibouti, Chad, Côte d'Ivoire, Somalia, Guinea, Madagascar, Mauritania, Niger	356
2	Group 2 – Countries with dependent food security	Jordan, Uzbekistan, United Arab Emirates, Bahrain, Brunei Darussalam, Tajikistan, Turkmenistan, Sudan, Syria, Sierra Leone, Saudi Arabia, Oman, Palestine, Kyrgyzstan, Qatar, Kuwait, Lebanon, Libya, Malawi, Mali, Morocco, Yemen	150
3	Group 3 – Countries with relatively stable food security	Albania, Algeria, Indonesia, Iran, Bangladesh, Burkina Faso, Bosnia and Herzegovina, Pakistan, Turkey, Tunisia, Senegal, Iraq, Kazakhstan, Nigeria, Maldives, Malaysia, Egypt	1,500

Source: [The Global Economy, employment in agriculture, Country Ranking, 2020](#); [The World Bank, employment in agriculture, 2020](#)

4.4. Agricultural Production and Food Security Indicators in Islamic Countries

In this section, official international data in three areas are examined: the percentage of arable land in Islamic countries, the food production index, and the average value added per farmer (in U.S. dollars) in Islamic countries. Accordingly, the average percentage of arable land in Islamic countries is 12.3 percent, which is lower than the global rate (14.3 percent). Among them, Bangladesh, Pakistan, Malawi, and Nigeria, with more than 35 percent of their total land area being arable, are considered exceptional cases, while 26 Islamic countries have less than 5 percent arable land (see [Table 9](#)). According to official data from 2016, Bahrain, Kuwait, and Sierra Leone were among the leading countries, whereas Sudan, Syria, Lebanon, Palestine, and the Maldives were among the weakest countries in terms of the Food Production

Index (total volume of production compared to the previous period). Also, based on official data from the same year, the average value added per farmer in Islamic countries was 9,524 U.S. dollars, which is significant when compared to the global average rate (3,500 U.S. dollars). In this context, the United Arab Emirates and Brunei Darussalam, which have exceptional rates, should be considered separately from other Islamic countries, because the share of employment in agriculture and the arable land in these two countries is negligible, and their average value-added index per farmer has little effect on the overall trend among Islamic countries. Apart from these two countries, Lebanon, Saudi Arabia, Malaysia, and Turkey fall into the category of countries with high indices; Iran, Algeria, Bahrain, Qatar, and the Maldives fall into the medium category; and the remaining Islamic countries are classified as low-index countries (see [Table 10](#)).

Table 9. Classification of Islamic Countries Based on the Percentage of Arable Land (2020)

No.	Group	Islamic Countries
1	Group One – Share above 35%	Bangladesh, Pakistan, Malawi, Nigeria
2	Group Two – Share between 25–35%	Turkey, Syria
3	Group Three – Share between 15–25%	Azerbaijan, Ethiopia, Burkina Faso, Bosnia and Herzegovina, Tanzania, Tunisia, Senegal, Sierra Leone, Morocco
4	Group Four – Share between 5–15%	Uzbekistan, Afghanistan, Indonesia, Iran, Côte d'Ivoire, Iraq, Kazakhstan, Guinea, Lebanon, Niger
5	Group Five – Share below 5%	Albania, Jordan, Algeria, United Arab Emirates, Bahrain, Brunei Darussalam, Tajikistan, Turkmenistan, Djibouti, Chad, Sudan, Somalia, Saudi Arabia, Oman, Palestine, Kyrgyzstan, Qatar, Kuwait, Libya, Maldives, Malaysia, Madagascar, Mali, Egypt, Mauritania, Yemen

Source: [The Global Economy, employment in agriculture, Country Ranking, 2020](#); [The World Bank, employment in agriculture, 2020](#)

Table 10. Classification of Islamic Countries Based on the Average Value Added per Farmer (in U.S. Dollars, 2016)

No.	Group	Islamic Countries
1	Group One – Above 100,000 USD	United Arab Emirates, Brunei Darussalam
2	Group Two – Between 15,000–25,000 USD	Turkey, Saudi Arabia, Lebanon, Malaysia

No.	Group	Islamic Countries
3	Group Three – Between 10,000–15,000 USD	Jordan, Algeria, Iran, Bahrain, Qatar, Maldives
4	Group Four – Between 5,000–10,000 USD	Albania, Bosnia and Herzegovina, Tanzania, Turkmenistan, Tunisia, Oman, Kazakhstan, Kuwait, Madagascar, Egypt, Nigeria, Yemen
5	Group Five – Below 5,000 USD	Azerbaijan, Ethiopia, Uzbekistan, Afghanistan, Indonesia, Bangladesh, Burkina Faso, Pakistan, Tajikistan, Djibouti, Chad, Côte d'Ivoire, Senegal, Sudan, Syria, Somalia, Sierra Leone, Iraq, Palestine, Kyrgyzstan, Guinea, Libya, Malawi, Mali, Morocco, Mauritania, Niger

Source: [The Global Economy, employment in agriculture, Country Ranking, 2020](#); [The World Bank, employment in agriculture, 2020](#)

4.5. Agricultural Potential, Production, and Imports in Islamic Countries

According to reports published by the World Bank and its affiliated organizations, in terms of the total area of arable land, only seven Islamic countries possess more than 100,000 square kilometers of cultivable land. Regarding the production of seven major grains - including wheat, rice, maize, barley, and millet - which serve as globally recognized indicators of food security and are characterized by

their high nutritional value, only nine countries among the Islamic nations demonstrate a relatively favorable status in terms of production. Based on available 2023 data, wheat import statistics have been recorded for 25 Muslim countries. Among these, Egypt, Indonesia, Turkey, Algeria, Morocco, Nigeria, and Bangladesh are listed among the top ten wheat-importing countries in the world, collectively importing over 61 million tons of wheat (see [Table 11](#)).

Table 11. Volume of Wheat Imports in Islamic Countries, 2023

No.	Group	Islamic Countries
1	Group One – More than 5 million tons	Egypt (12), Indonesia (11), Turkey (10), Algeria (8.7), Morocco (7.8), Nigeria (6), Bangladesh (5.8)
2	Group Two – Between 2 and 5 million tons	Saudi Arabia (4.9), Iran (4), Yemen (4), Afghanistan (3.9), Uzbekistan (3.5), Pakistan (3), Iraq (3), Sudan (2.6), Syria (2.3), Tunisia (2.3), Kazakhstan (2)
3	Group Three – Between 1 and 2 million tons	Malaysia, United Arab Emirates, Azerbaijan, Libya, Jordan, Tanzania, Tajikistan
4	Group Four – Less than 1 million ton	Albania, Bosnia and Herzegovina, Turkmenistan, Oman, Kuwait, Madagascar, Ethiopia, Burkina Faso, Djibouti, Chad, Côte d'Ivoire, Senegal, Somalia, Sierra Leone, Palestine, Kyrgyzstan, Guinea, Malawi, Mali, Mauritania, Niger, Brunei Darussalam, Lebanon, Bahrain, Qatar, Maldives

- The numbers in parentheses indicate each country's wheat import volume (in million tons). Countries are listed in order of their total import volume.

Source: [World Grain.Com](#), The International Business Magazine for Grain, Flour and Feed, December 2024.

5. Discussion and Conclusion

The analysis of official international data in this study indicates that Islamic countries are primarily rural in structure, and secondarily characterized by a predominantly young population. Processes such as urbanization and demographic transition (including aging) have, thus far, not significantly altered these two major structural features — rural settlement patterns and youthful population composition. Moreover, although a rapid trend of urbanization is evident across Islamic countries, the rate of rural settlement remains relatively high. However, this high rate of rurality has not translated into enhanced agricultural productivity or improved food security. In particular, in countries such as Ethiopia, Afghanistan, Burkina Faso, Tajikistan, Malawi, and Niger, where more than 70 percent of

the population resides in rural areas and is mostly employed in the agricultural sector, there has been little success in increasing agricultural output per capita or improving GDP contributions from agriculture. Similarly, in other countries such as Uzbekistan, Bangladesh, Bosnia and Herzegovina, Pakistan, Tanzania, Chad, Sudan, Somalia, Sierra Leone, Kyrgyzstan, Guinea, Madagascar, Maldives, Mali, and Yemen, where more than 50 percent of the population lives in rural regions and is engaged in farming, the situation remains comparable. In fact, in 21 Islamic countries where the rural population still exceeds the urban population, the indicators related to the share of agricultural employment in GDP and other components influencing food security remain weak. In contrast, in countries such as Algeria, Iran, Brunei

Darussalam, Turkey, Iraq, Saudi Arabia, Oman, Palestine, Libya, Malaysia, and Morocco, a rapid urbanization trend has been observed, leading to a sharp decline in rural population rates. The results indicate that this trend has had distinct impacts on rural economies and agricultural production structures.

Overall, based on official data, it can be stated that the most populous Islamic countries tend to have rural-based structures, while the Gulf Cooperation Council (GCC) states are predominantly urban-centered societies. Out of the total 1.984 billion people living in Islamic countries (not the total number of Muslims worldwide), approximately 1.011 billion people — or 51 percent — reside in rural areas.

Furthermore, the findings reveal a significant imbalance in settlement systems among Islamic countries. Roughly 60 percent of the total rural population of the Islamic world is concentrated in six countries: Pakistan, Indonesia, Bangladesh, Nigeria, Ethiopia, and Egypt. Conversely, in six other countries — Kuwait, Bahrain, Qatar, Djibouti, Maldives, and Brunei Darussalam — the total rural population does not exceed one million people. In 2019, sixteen countries recorded negative rural population growth, whereas among the eighteen Islamic countries with populations exceeding 30 million, the average rural population growth rate was 1.6 percent, reflecting the persistence of rural settlement patterns in these nations. Apart from fourteen Islamic countries where the elderly population exceeds 7 percent, the remaining, particularly the eighteen most populous Islamic countries, exhibit youth-dominant demographic structures.

On the other hand, serious concerns can be raised regarding the performance of agricultural economies (or rural economies) and the share of agriculture in GDP, which reflects the capacity for agricultural production and food security. The study demonstrates that among the nine countries where agriculture accounts for more than 25 percent of GDP, most are not economically strong either in terms of agricultural productivity or per capita GDP, highlighting weaknesses in both domestic economic capacity and agricultural production systems. Even in relatively stronger economies such as Pakistan and Nigeria, or in large-population Islamic countries like Indonesia, Egypt, Turkey, and Iran, agricultural production capacity and food security

remain fragile. Undoubtedly, the scarcity of environmental resources such as water and arable soil, along with the fact that significant portions of the Islamic world lie within the global arid and semi-arid belt stretching from West Africa to Central Asia, plays a critical role in the vulnerability of these countries in achieving sustainable food security.

Accordingly, in response to the first research question, the following conclusions can be drawn:

- Islamic countries with a high share of employment in agriculture generally lack efficiency in their agricultural economies, and food security in these countries is unstable.
- Islamic countries with a moderate agricultural employment rate (10–30%), and relatively efficient agricultural production and GDP contribution, can be classified as having partial or relative food security.
- Twenty-six Islamic countries with less than 5 percent arable land are effectively food-insecure and depend on agricultural imports, while twenty-seven Islamic countries with an average value added per farmer below USD 5,000 face unstable or externally dependent food security.
- In terms of arable land area, only seven Islamic countries possess significant agricultural potential to ensure food security, and in terms of production of the seven major cereal crops, only nine countries demonstrate a relatively favorable status.
- Official data from 2023 show that at least 25 Muslim countries import wheat in large quantities; among them, seven countries — Egypt, Indonesia, Turkey, Algeria, Morocco, Nigeria, and Bangladesh — rank among the world's top ten wheat importers, with a combined import volume of approximately 61 million tons.

The global classification of food security, as defined by international organizations, is based on 18 parameters (see [Table 13](#)). These indicators are categorized into three main dimensions:

1. Legal–Political,
2. Agricultural–Economic/Household, and
3. Production–Nutritional.

According to these indicators, the food security classification of 113 countries worldwide — including 32 of the 51 Islamic countries examined

in this study — was published in 2022 (the most recent global ranking available).

Based on this data, Finland, Ireland, Norway, France, and the Netherlands ranked first globally, each scoring above 80. Among Islamic countries, the United Arab Emirates, Qatar, Kazakhstan, Oman, Bahrain, Saudi Arabia, Malaysia, Turkey, and Kuwait were placed among the top ten Islamic nations, ranking between 23rd and 50th globally. Following these, Morocco, Tunisia, Indonesia,

Azerbaijan, Algeria, Uzbekistan, Pakistan, Mali, Senegal, Burkina Faso, Tanzania, Malawi, Côte d'Ivoire, Niger, and Guinea ranked 57th to 99th globally.

At the lower end of the spectrum, Guinea, Ethiopia, Chad, Sudan, Nigeria, Sierra Leone, Yemen, and Syria were among the lowest-ranked Islamic countries, positioned between 100th and 113th globally (Source: [Wikipedia.org](https://www.wikipedia.org), 2022).

Table 12. Key Components Influencing the Global Food Security Ranking of Countries

No.	Category	Indicators
1	Legal–Political	Food safety, administrative corruption, political stability risk, urban absorption capacity, proportion of population below the global poverty line, food security program network
2	Agricultural Economy–Household	Share of food expenditure in household spending, import tariffs on agricultural products, agricultural production volatility, per capita GDP, farmers' access to financial resources, agricultural R&D expenditures
3	Production–Nutritional	Agricultural infrastructure, nutritional standards, dietary diversity, protein quality, food loss, adequacy of food supply

Source: [Wikipedia.org/Global_Food_Security_Index](https://www.wikipedia.org/Global_Food_Security_Index), 2022.

Previous domestic and international studies have typically classified food security levels of countries or regions based on the general parameters provided by international organizations. However, the present study focuses on a new combined framework of indicators for food security classification. In response to the second research question, a critical assessment of the conventional classification emerges. Although the global classification system is based on 18 indicators, it overlooks fundamental contextual variables such as countries' natural characteristics, rural settlement patterns, agricultural capacity, agricultural production indices, and the volume of agricultural

food imports. These omissions create significant limitations in the accuracy of global food security assessments.

Therefore, the present study emphasizes that indicators directly affecting food production and food imports — including arable land, water resources, per capita agricultural production, the share of the agricultural sector in GDP, average agricultural productivity, and the capacity of governments to import and provide food — should be incorporated into a **composite index of food security**. Based on this composite approach, the Islamic countries are classified into four distinct groups according to per capita cereal production and import capacity.

Table 13. Classification of Islamic Countries Based on Composite Food Security Indicators (Per Capita Cereal Production and Imports)

No.	Group	Islamic Countries	Per Capita Cereal Production (kg/person)	Number of Countries	Approximate Population (million)
1	Group I – Moderate Food Security	Uzbekistan, Bosnia and Herzegovina, Mali	Over 400 kg	3	55
2	Group II – Weak Food Security	Azerbaijan, Turkey, Guinea	300–400 kg	3	108
3	Group III – Very Weak Food Security	Albania, Ethiopia, Bangladesh, Pakistan, Iran, Burkina Faso, Tanzania, Turkmenistan, Syria, Senegal, Kyrgyzstan, Niger	200–300 kg	12	745
4	Group IV – Food Insecure	Jordan, Afghanistan, Algeria, United Arab Emirates, Indonesia, Bahrain, Brunei Darussalam, Tajikistan, Tunisia, Djibouti, Chad, Côte d'Ivoire, Sudan, Somalia, Sierra Leone, Iraq, Saudi Arabia, Oman, Palestine, Kazakhstan, Qatar, Kuwait, Lebanon, Libya, Madagascar, Malawi, Maldives, Malaysia, Morocco, Egypt, Mauritania, Nigeria, Yemen	Less than 200 kg	33	1,078

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Authors contributions

The authors equally contributed to the preparation of this article.

Conflict of interest

The authors declare no conflict of interest.

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روستا نشینی، ساختارهای تولید کشاورزی و امنیت غذایی در کشورهای اسلامی

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چکیده مبسوط

۱. مقدمه

بسیاری از کشورها و نیز برخی کشورهای اسلامی، برنامه های گوناگونی برای تامین امنیت غذایی دارند که در دهه های اخیر، توسعه فعالیت های کشاورزی، تهیه برنامه توسعه روستایی، برنامه ریزی تولید محصولات استراتژیک و اجاره بین المللی زمین های قابل کشت، تنوع کشت، تامین منابع آب، برنامه های تامین پروتئین و بهره وری در تولید کشاورزی مهمتر به شمار می رود کشور های اسلامی، کشورهایی با ساختار زندگی روستایی، و البته کشورهایی جوان شمرده می شوند و تغییرات گسترده و شتابان شهرنشینی و سالمندی جهانی، نتوانسته ساختار روستا نشینی را در کشورهای اسلامی، دگرگون نماید. استراتژی توسعه بسیاری از کشورهای جهان بر کیفیت، کارایی و نحوه توزیع و پراکندگی جمعیت روستایی استوار است. تناسب میزان جمعیت روستایی با شاخص های توزیع اشتغال در بخش های مختلف اقتصادی، و تولید ناخالص ملی برای بسیاری از برنامه ریزان کشورهای توسعه یافته و در حال توسعه اهمیت حیاتی دارد.

۲. روش تحقیق

تحقیق حاضر با هدف بررسی ساختارهای موثر در امنیت غذایی کشورهای اسلامی، به میزان و پراکندگی جمعیت روستایی به عنوان گروههای تامین کننده امنیت غذایی و برخی از کیفیت های ترکیب جمعیت و ساختارهای محیطی در کشورهای اسلامی پرداخته است. روش تحقیق توصیفی - تحلیلی بوده و داده های مورد نیاز با استفاده از منابع رسمی قابل استناد در مقیاس بین المللی و سازمان های جهانی فراهم شده است. جامعه آماری تحقیق، ۵۱ کشور اسلامی بوده و طبقه بندی داده ها بر اساس ویژگی و صفت جامعه آماری در موضوع صورت گرفته است.

۳. یافته های تحقیق

الف) توزیع و طبقه بندی جمعیت روستایی در کشورهای اسلامی - در بین کشورهای اسلامی، چهار کشور پاکستان، اندونزی، بنگلادش و نیجریه بالغ بر ۴۵ درصد از جمعیت روستایی کشورهای اسلامی را در خود جای داده اند و اگر اتیوپی و مصر به اینها اضافه شود این نسبت

به حدود ۶۰ درصد می رسد. به عبارتی، حدود ۶۰ درصد از جمعیت روستانشین کشورهای اسلامی در همین شش کشور زندگی می کنند. بر عکس این کشورها، در شش کشور کویت، بحرین، قطر، جیبوتی، مالدیو و برونی دارالسلام مجموع تعداد جمعیت روستایی به یک میلیون نفر نمی رسد.

ب) سهم اقتصاد کشاورزی در سرانه تولید ناخالص داخلی کشورهای اسلامی - در زمینه سهم کشاورزی در تولید ناخالص داخلی کشورهای اسلامی که بیانگر توانایی اقتصاد کشاورزی در تولید و امنیت غذایی است، کشورهای اسلامی را می توان در چند گروه طبقه بندی کرد. بررسی داده ها نشان می دهد کشورهای گروه نخست شامل ۹ کشور عموماً کشورهایی هستند که بیش از ۲۵ درصد از تولید ناخالص داخلی را از بخش کشاورزی تامین می کنند. در گروه دوم ۱۰ کشوری قرار دارند که ۱۵ تا ۲۵ درصد از سرانه تولید ناخالص داخلی کشور از بخش کشاورزی تامین می شود. ویژگی عمده در این گروه توانایی برخی از کشورهای پرجمعیت مسلمان مانند پاکستان، و نیجریه در تامین امنیت غذایی و تولید کشاورزی است. در گروه سوم، ۱۶ کشور قرار دارند که توانایی قابل توجهی در تولید کشاورزی، امنیت غذایی و سرانه تولید ناخالص داخلی دارند. در این گروه نیز کشورهای پرجمعیت اسلامی، مانند اندونزی، مصر، ترکیه و ایران بارز ترین کشورها به شمار می رود. در نهایت در گروه چهارم، ۱۶ کشوری قرار دارند که کمتر از ۵ درصد از سهم تولید ناخالص داخلی آنها متأثر از بخش اقتصاد کشاورزی است.

ج) طبقه بندی کشورهای اسلامی در توانایی اشتغال کشاورزی در تولید ناخالص داخلی - مجموع تقریبی جمعیت دو میلیارد نفری کشورهای اسلامی (نه جمعیت مسلمان)، بالغ بر یک و نیم میلیارد نفر از حداقل نسبی تامین امنیت غذایی برخوردارند. در گروه سوم، کشورهایی قرار می گیرند که ساختار اقتصاد کشاورزی، و به تبع آن سهم اشتغال در بخش کشاورزی ناچیزی دارند و عموماً می توان گفت این کشورها از نظر امنیت غذایی به سایر کشورها وابسته هستند. در این گروه کشورهای نفت خیز حاشیه خلیج فارس دیده می شود و شاید بتوان جمعیت این گروه را حداکثر تا ۱۵۰ میلیون برآورد کرد.

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اندونزی، ترکیه، الجزایر، مراکش، نیجریه، و بنگلادش جزو ۱۰ کشور مهم وارد کننده گندم در جهان هستند که در مجموع بالغ بر ۶۱ میلیون تن گندم وارد کرده اند.

۴. بحث و نتیجه گیری

شاخص های موثر در تولید و واردات محصولات کشاورزی موثر در امنیت غذایی مورد توجه قرار گرفته و به عنوان شاخص ترکیبی مورد بررسی قرار گیرد، می توان گفت در مجموع، مولفه های موثر در امنیت غذایی، مانند زمین قابل کشت، منابع آب، سرانه تولید، سهم بخش کشاورزی، و متوسط ارزش تولید کشاورزان، و نیز توانایی دولت ها در خریداری و تامین نیازهای غذایی لحاظ شده است و بر این اساس، طبقه بندی کشورهای اسلامی از نظر شاخص های ترکیبی امنیت غذایی و جمعیت دارای امنیت غذایی با در معرض تهدید امنیت غذایی در چهار گروه قابل ارایه است.

کلیدواژه ها: امنیت غذایی، کشورهای اسلامی، جمعیت روستایی، اقتصاد کشاورزی، اقتصاد روستایی.

تشکر و قدرانی

پژوهش حاضر حامی مالی نداشته و حاصل فعالیت علمی نویسندگان است.

د) شاخص های تولید کشاورزی و امنیت غذایی کشورهای اسلامی - بر این اساس متوسط درصد زمین های قابل کشت در کشورهای اسلامی ۱۲.۳ درصد است که کمتر از نرخ جهانی (۱۴.۳ درصد) است. در این بین، کشورهای بنگلادش، پاکستان، مالاوی و نیجریه با بیش از ۳۵ درصد از مساحت قابل کشت، ویژه شمرده می شوند و ۲۶ کشور اسلامی، زمین های کمتر از ۵ درصد دارند. بنا بر داده های رسمی در سال ۲۰۱۶، کشورهای بحرین، کویت و سیرالئون جزو کشورهای پیشتاز و کشورهای سودان، سوریه، لبنان، فلسطین و مالدیو جزو کشورهای ضعیف در شاخص تولید مواد غذایی (حجم کل تولید در مقایسه با دوره قبل) به شمار می رفته اند.

بنا بر گزارش های بانک جهانی و سازمان های وابسته به آن، در زمینه مساحت زمین قابل کشت در کشورهای اسلامی تنها ۷ کشور بیش از ۱۰۰ هزار کیلومتر مربع زمین کشاورزی قابل کشت دارند و در زمینه تولید غلات هفت گانه (از جمله شامل گندم، برنج، ذرت، جو، ارزن) که معیار قابل ذکر جهانی در تامین امنیت غذایی بوده و با ارزش غذایی بالا شناخته می شود، تنها ۹ کشور وضعیت نسبتاً مناسبی در تولید دارند. داده های موجود از سال ۲۰۲۳، اطلاعات واردات گندم ۲۵ کشور مسلمان به ثبت رسیده و از بین این کشورها، هفت کشور مصر،



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