

ECONOMIC-GEOGRAPHICAL PROBLEMS OF EFFECTIVE
ORGANIZATION OF ECONOMY AND CONTROLLING
OF DISTRIBUTION OF THE POPULATION IN THE SOUTHERN
BORDER OF THE REPUBLIC OF AZERBAIJAN
(IN THE EXAMPLE OF LANKARAN-ASTARA ECONOMIC REGION)

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Effective territorial organization of farms is a key factor for sustainable development of the regions, development of settlements, expansion of relations among them, involvement of natural resources in the economic turnover, promotion of social and cultural services to the population. Despite many years of reforms to overcome the difficulties of the transition period, it is not possible to increase the share of regions in the socio-economic development of the country.

These processes also manifest themselves in the economic region of Lankaran-Astara in the southern part of the country. Poor supply of natural resources, inefficient organization of the agricultural sector, and high rates of population growth over the years due to natural growth have caused serious problems in the creation of work places and the organization of social and cultural services. This situation has also contributed to migration. In order to solve them, it is important to implement large-scale socio-economic measures and to develop their scientific and theoretical basis.

Keywords: socio-economic development, economic region, transition period, natural and economic potential, economic reforms, mineral resources, demographic development, agrarian reforms, industrial production.

ИКОНОМГЕОГРАФСКИ ПРОБЛЕМИ НА ЕФЕКТИВНАТА ОРГАНИЗАЦИЯ
НА СТОПАНСТВОТО И РАЗПРЕДЕЛЕНИЕ НА НАСЕЛЕНИЕТО
ПО ЮЖНАТА ГРАНИЦА НА АЗЕРБАЙДЖАН
(НА ПРИМЕРА НА ЛАНКАРАН-АСТАРСКИЯ ИКОНОМИЧЕСКИ РАЙОН)

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Резюме: Ефективната териториална организация на стопанствата е ключов фактор за устойчиво развитие на регионите, за развитие на населените места и разширяване на отношенията между тях, включване на природните ресурси в икономическия

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оборот, насърчаване на социалните и културните услуги за населението. Въпреки многогодишните реформи за преодоляване на трудностите в преходния период, не е възможно да се увеличи дялът на регионите в социално-икономическото развитие на страната. Тези процеси се проявяват и в икономическия регион Ланкаран-Астара в южната част на страната. Недостатъчното и нерационално използване на природните ресурси, неефективната организация на селскостопанския сектор и високите темпове на нарастване на населението през годините в резултат на естествения прираст създават сериозни проблеми при разкриването на работни места и организацията на социалните и културните услуги. Тази ситуация е една от причините за миграциите. За решаването на тези проблеми е важно да се прилагат мащабни и научнообосновани социално-икономически мерки.

Ключови думи: социално-икономическо развитие, икономически регион, преходен период, природен и икономически потенциал, икономически реформи, минерални ресурси, демографско развитие, аграрни реформи, промишлено производство.

THE ACTUALITY OF THE THEME

After the second half of the 20th century, along with Absheron, where most of the industrial potential of the country is concentrated, a large network of production and service facilities were established in other economic regions. However, there have always been significant differences among them at the level of socio-economic development and in the formation of demographic potential.

In the first years of independence the economic crisis has led to the degradation of socio-economic potential in the regions, the increase in the migration intensity of the population and, consequently, the imbalance in regional development. Many of them have ceased to function as a result of problems with the supply of raw materials to industrial enterprises, the sale of finished products, and the implementation of inter-republican cooperation. At the same time, light and food industry facilities, which form the basis of the economy in the regions, have also stopped their activities. There have been serious delays in the harvesting of cotton, grapes, tobacco, tea, which constitute their raw material base.

The current state of socio-economic development in the regions determines the development of demographic potential. Therefore, the economic and social framework needs to be reconstructed first to regulate the demographic situation. These regions also include Lankaran-Astara economic region.

THE RESEARCH OBJECT

The economic district includes Astara, Jalilabad, Lerik, Lankaran, Masalli, Yardimli administrative districts and the city of Lankaran. Its area is 6.1 thousand km² or 7.0% of the country, its population is 927.7 thousand people, which is 9.33% of the total population of the country (Demographic indicators of Azerbaijan – 2017, 2018a). In Lankaran-Astara, 249.6 thousand people (27%) are concentrated in urban areas.

Lankaran-Astara economic region ranks fourth in the country in terms of population. The prevalence of rural populations, the widespread prevalence over the years,

and high natural increase rates have contributed to the rapid growth of the population in the economic district. The settlement system of Lankaran-Astara economic-geographical region includes 8 cities, 13 settlements and 638 rural settlements. 10.3% of the cities of the republic, 5.0% of the settlements and 15.0% of the rural settlements are located here. The population is 153 people per km², which is significantly higher than the national average (114 persons / km²) (Data of the population census of the Republic of Azerbaijan in 2009, Vol. 13, 2010).

The economic region is bordered by the Islamic Republic of Iran in the south, and the waters of the Caspian Sea wash the shores of the Lankaran lowlands in the east of the region. The region is of great importance and strategic in establishing relations with Iran and Turkey, maintaining land transport relations with the Nakhchivan AR.

2.4% of the country's total production, including 0.3% of industrial production and 10.4% of agricultural production are produced in Lankaran-Astara economic region. 4.6% of the population engaged in the agricultural sector, including 2.9% of industrial workers, are employed here (The regions of Azerbaijan – 2017, 2018a).

DATABASES AND RESEARCH METHODS

Prior to this article, the existing research and available scientific literature in the field of agricultural development and settlement studies in Azerbaijan were used. The annual reports of the State Statistical Committee and the census materials of 1999-2009 play a key role (Data of the population ..., 2009, Vol. 1, 2010).

The economic structure of the southern regions of the country, its reconstruction, the settlement of the population, and the ways of their socio-cultural needs are analyzed in the article. The socio-economic and demographic potential of the region, the factors that determine their development, the main ways of future development are analyzed, and relevant recommendations are provided.

Comparative analysis, historical and geographical research, statistics and cartographic methods were used during the analysis.

LEVEL OF SUBJECT STUDY

The importance of natural-geographical and socio-economic factors, the role of territorial organization of economic areas in the settlement systems, the ways of reconstruction of economic structure in Azerbaijan are investigated in Nadirov (2013), Hajizade (1983), Mehraliyev (1984), Ayyubov (2010), Eminov (2005), Afandiyev, Samadov, Azizov and others' research work.

NATURAL CONDITIONS AND NATURAL RESOURCES

The Talish Mountains and the Lankaran lowland belongs to main orographic units in the Lankaran-Astara economic region. The Lankaran lowland is intensively assimilated due to its smooth relief and favorable natural and climatic conditions. It is

one of the most densely populated areas in the country. Beginning with the borders of Aran economic district in the north, it extends 100 km to the south of the river Astara.

As the economic region is a humid subtropical zone of the republic, citrus fruits are cultivated and there are favorable conditions for planting perennial plants such as tea and grapes (Geography of Azerbaijan. Vol. 3, 2015a).

The Caspian Sea coastal location of the economic region, plains, forests, abundant solar energy, historical and architectural monuments, mineral springs create favorable conditions for tourism and recreational facilities. These natural and economic opportunities are still being used poorly. The creation of a network of up-to-date infrastructures capable of providing high quality services are required for the development of these areas.

MODERN TERRITORIAL ORGANIZATION OF THE FARMING

Lankaran-Astara economic district is one of the most important agricultural regions. Depending on natural conditions, especially soil-climatic features citrus fruit, tea, vegetable growing, viticulture, grain growing, poultry farming, and cattle breeding are specialized here in agriculture. In the economic region, 70% of the value of the production is a share of plant growing, and 30% in the livestock sector. However, there are serious differences in the agricultural location by the area and the territory. In the Lankaran, Astara and Masalli regions 75% of production is plant growing, while in the mountainous areas Lerik and Yardimli are 30%. In Jalilabad, crop production accounts for 62% of production and livestock production for 38% (The regions of Azerbaijan – 2017, 2018b)

Vegetables grow mainly in Lankaran and Masalli regions, citrus fruits in Lankaran and Astara regions, tea growing in Lankaran, Astara and Masalli regions, vineyards in Jalilabad, Masalli and Lankaran (Fig. 1).



Fig. 1. Citrus gardening farm in Lankaran

One of the most important areas of agriculture in the economic region is tea growing. Tea growings are mainly concentrated in the areas of the Lankaran lowland with wet climatic condition. The development of this area is of great importance both in the national economy and in the development of the economic region (Fig. 2).

Lankaran-Astara economic region accounts for 9.7% of the sown area of cereals and 8.9% of the harvest in the country. 48.6% of wheat and crop production belongs to Jalilabad region. To ensure food security, which is an integral part of our country's economic development policy and meeting the grain demand of the population is of great importance. Recently, interest in paddy cultivation in the economic district has increased, and its cultivation area is increasing year by year. Because paddy productivity is 2-3 times higher than grain.

The decline in grape and vegetable production has contributed to the development of potato farming in the economic region. Potato farming has become a specialized area in some villages of the economic region. In 1990, the total area of potatoes in the economic district was 517 hectares, but now it is over 10,000 hectares. 24% of the potatoes produced in the country account for Lankaran-Astara economic region. Jalilabad region ranks third in the country in terms of potato crop area (The regions of Azerbaijan – 2017, 2018c).

Livestock is the second most important field in the Lankaran-Astara economic region after the plant growing. Although the main area of fodder plants, as well as the natural pastures and hayfields in the economic district, is relatively limited, the population's demand for meat and dairy products has led to the development of diversified livestock here. In the economic region, livestock is mainly developed in the dairy and meat industry.

Recently, the social and cultural facilities, transport and communication networks in the southern region are being reconstructed, and the capacity of the highways connecting the administrative district centers and regional industrial cities with the capital region is increased. These measures are the basis for the creation of indus-



Fig. 2. Lankaran tea growing plantation



Fig. 3. Masalli industrial district

trial facilities of national importance in the region. Measures for the development of carpet weaving in the country, the establishment of agroparks, the establishment of agro-processing enterprises, the increase of the number of food industry enterprises to enlarge the food supply of the population, the construction of modular thermal power plants, the use of alternative energy sources are important for the development of industry in the regions. These significantly increased the share of industry in the economic structure of the Lankaran-Astara economic region (Fig. 3).

At present, 86 industrial facilities operating in the Lankaran-Astara economic region are registered. Industrial production of 128.0 mln manat was in 2017. This is equivalent to 0.46% of the country's industrial output. Economic region accounts for 0.4% of industrial funds available in the country, and 3.0% of industrial workers (Industry of Azerbaijan – 2017, 2018a). Numerous industrial facilities have been put into operation in the economic region recently. Wine factory in Jalilabad region, carpet workshop in Lankaran, Modular TPS in Lerik region and others can be noted. By the beginning of 2018, 59.1% of the region's industrial output accounted for the manufacturing industry, 38.6% - electricity, natural gas and heat distribution, 2.1% - water supply and purification (Industry of Azerbaijan – 2017, 2018b).

Table 1

The industry structure in economic region

Indicators	Years				
	2000	2005	2010	2015	2017
Total	100	100	100	100	100
Mining industry	-	0,6	0,3	0,2	0,2
Stone, sand, gravel extraction	-	0,6	0,3	0,2	0,2
Processing industry	57,0	69,8	52,7	59,8	59,1
Light industry	0,0	3,7	-	-	-
Food industry	55,4	24,6	15,8	18,6	22,2
Forest and wood working	0,5	0,7	33,9	33,3	32,1
Chemical industry	-	0,2	0,6	0,7	0,3
Production of building materials	0,7	3,4	2,4	7,1	3,5
Metallurgical industry	-	0,5	0,1	0,1	1,0
Mechanical engineering	0,1	0,0	0,0	-	-
Other fields	0,3	36,7	29,1	-	-
Electricity, gas and steam production	43,0	29,6	43,9	37,2	38,6
Water supply and sale			3,1	2,8	2,1

Source: Industry of Azerbaijan 2006. Baku, SSC, 2007, p. 134-153. Industry of Azerbaijan 2012. Baku, SSC, 2013, p. 207-208. Industry of Azerbaijan 2017. Baku, SSC, 2018, p. 202-203.

In the structure of the manufacturing industry, forest and woodworking, furniture production still retains its leading position, as in previous years, with 32.1% of the total industrial output (Table 1). The second place is occupied by the food industry, with a specific weight of 22.2% (Fig. 4). The region produces a small amount of building materials and produces some of its products.

The existing structure of the economy in the Lankaran-Astara economic region does not allow the sustainable development of the urban economic base, the provision of work places for the population and the expansion of existing businesses. This is because the existing industrial enterprises have a low labor capacity and they have limited opportunities to expand their production areas and increase the number of employees.

In order to develop industry in the region and increase its share in the production of goods in the country, it is necessary to establish a network of new facilities in the food and light industries, primarily based on agricultural processing. The establishment of processing plants for the production of tea, citrus fruits, grapes, canned fruits and vegetables in accordance with the specialized agricultural areas of the economic region will serve to strengthen the economic base in cities and towns.



Fig. 4. Lankaran canning plant

SETTLEMENT OF POPULATION

602,900 people lived in the economic region, in 1989 (Table 2). In 1989-1999 the population in the region increased by 127.6 thousand people or by 121.2% (Demographic indicators of Azerbaijan - 2017, 2018b). This increase is one of the highest rates among economic regions, and takes the second place. Although over the next decade the population growth rates (93.4 thousand people or 112.8%) have been relatively low, it still has a high number compared with other economic regions. The population growth in Lankaran-Astara for the period 1989-2016 analyzed was the highest (50.3%) in the country. As a result, the share of the population gathered in the economic region continues to increase. Significant changes have not been observed in recent years. 8.6% of the population of the republic lived in Lankaran-Astara, in 1989 and 9.3% in 2016.

Indicators of natural increase in the economic region have always been higher than the average of the republic. In 2017, the birth rate was 16.4 per 1,000 population and the death rate was 5.4, with a natural increase of 11.0 (Population of Azerbaijan - 2017, 2018). Because in 2012 these indicators were recorded at levels 21.2; 5.5 and 15.7.

The low level of social and cultural services provided for the population in the region and the problems in the area of employment cause migration. These processes have a significant impact on population growth. In 2001-2006, the economic balance in the economic region was -3,900, and for the next 5-year period - 7,100. Recently, its value has been decreasing (Geography of Azerbaijan. Vol. 3. 2015b).

Table 2

The change of the number of population in economic region

Regions	The number of the population, people				Growth rate, %		1989-2016	
	1989	1999	2009	2016	1989-1999	1999-2009	People	%
Astara	69709	84319	96200	105200	121,0	114,1	35491	50,9
Jalilabad	132522	169960	192300	213000	128,3	113,1	80478	60,7
Lerik	53833	63314	74500	81900	117,6	117,7	28067	52,1
Lankaran	163591	189929	205700	223100	119,3	108,3	59509	36,4
Masalli	143300	173937	197200	218500	121,4	113,4	75200	52,5
Yardimli	39955	49039	58100	64200	122,7	118,5	24245	60,7
Economic region	602910	730498	824000	905900	121,2	112,8	302990	50,3
Azerb.Repub.	7021178	7953438	8922400	9705600	113,3	112,2	2684422	38,2

Source: "Demographic indicators of Azerbaijan - 2015" Baku, SSC., 2016. p. 66, 76.



Fig. 5. Lerik region, Rvarud village

OUTCOME AND SUGGESTIONS

Based on the analysis of the main trends of economic and socio-demographic development in the Lankaran-Astara economic region, the following conclusions can be reached:

– High rates of natural increase in the economic region for many years have also led to a rapid population growth. However, the low level of employment opportunities and the weak socio-economic base of urban areas negatively affected demographic development. Such condition has resulted in an increase in the migration intensity of the population.

– Transition difficulties have adversely affected economic and socio-demographic development in the economic region. The recession of the region's industry into agricultural processing and the recession in these areas have slowed development of the agricultural sector and deprived the population from their working places.

– There are no important industrial minerals in the economic region. Therefore, it is difficult to establish enterprises of national importance in urban areas. Many of them are of local importance and do not play a major role in the development of the region. As a result, there is an acute discrepancy among the individual farms. This prevents the economic district from increasing its role in the economic structure of the country.

– Creation of light and food industries based on agricultural processing, increased productivity in agriculture, and creation of new jobs are important factors for the economic development, as well as ensuring the socio-demographic development.

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