

CHARACTERISTIC FEATURES OF THE AGRICULTURAL DEVELOPMENT DURING THE INDEPENDENCE YEARS

The aim of the study is to analyze characteristic features of the agricultural development during the independence years.

Methods. The study used the method of comparative historical methods, statistics, analyze.

Results. During the years of independence, the agricultural sector has undergone major changes, the role of those areas having strategic importance, export potential, and the creation of processing facilities has diminished. Distribution of soils to small populations does not allow the application of advanced methods, cultivation of agricultural products, use of productive seeds and animal breeds. Therefore, the share of this sector in GDP is low and does not meet the population's demand for many products.

Scientific novelty. Agrarian reforms during the years of independence have had a significant impact on the area and territorial structure of agriculture. Over the years, the areas of specialization formed in different regions have changed fundamentally, and there has been a decline in the production of strategic areas such as cotton, viticulture, tobacco production, tea-growing and cereal production. Instead, grain, potatoes, melon, fruit and vegetable crops cover a wide range of consumer needs. Currently, more than 60% of cultivated areas in the country are occupied by grain products. However, because of low productivity, the harvest does not meet domestic demand. The development of agriculture in the country requires the use of productive plants and animal species, the stocking up, storage, expansion of processing centres, and strengthening the logistics base. To ensure the food security of the population the uses of such opportunities also may create conditions. In the process of agricultural management, the demand for basic food products through domestic production is considered an important task. Grain, potatoes, fruit-growing and animal husbandry takes a huge place in the solution of this task. agricultural products are the foundation of the economic base in almost all cities and towns of the country regions.

Keywords: agriculture, agrarian reform, crop fields, food security, plant growing, livestock, specialization areas, regional development, domestic consumer goods.

The actuality of the subject. Natural and geographical conditions play an important role in the development of agriculture. Under its influence, crops are grown, cultivated field are expanded or reduced. These factors also seriously affect the productivity of plants. The specialization of agriculture in different regions or countries is determined in the world markets by their natural and economic potential. At the same time, socio-economic factors play a crucial role in the territorial and field structure of agriculture in all economic sectors.

The agricultural policy of the state has a great influence on its development, territorial organization, creation of material and technical base, mineral fertilizers, pest control agents, and the provision of qualified personnel. Regional territorial organization of agriculture is an important part of the country's policy in this field. The formation of the fields of specialization in agriculture based on the use of the natural and geographical potential of the regions is possible due to regional policy. Forming the country's economic potential these fields play a vital role to increase the role of the regions [2, p.516]. Therefore, the development of the fields corresponding to the capabilities of natural and geographical conditions bring more income is an important issue [7, p.173]. To ensure the food security of the population the uses of such opportunities also may create conditions. In the process of agricultural management, the demand for basic food products through domestic production is considered an important task. Grain, potatoes, fruit-growing and animal husbandry takes a huge place in the solution of this task.

Research materials and methods. The scientific literature on the territorial organization of agriculture, agrarian reforms in Azerbaijan was used for the analysis. The statistical base of the analysis is the annual reports of the Statistical Committee on Agriculture, the Ministry of Agriculture. The study analyzes the main results of the agrarian reforms carried out in the country, the current state of the territorial agricultural organization, the problems of producing goods to meet domestic demand, as well as development prospects of the industry. Statistical analysis, comparative analysis and generalization methods were used in the research process.

Study of the subject. Territorial organization of agriculture, its place in the structure of agriculture, the results of agrarian reforms have been studied by Azerbaijani scientists in different years. In their works economic assessment of natural and geographical conditions was completed, directions of specialization were studied, the role of this sphere in ensuring food security of the country and development of the processing industry was defined. Among them are A.A.Gurbanov, B.T.Nazirova, Z.N.Eminov, N.A.Pashayev, N.H.Eyubov and others have made a great job.

Explanation of the study. In addition, agricultural products are the foundation of the economic base in almost all cities and towns of the country regions. Therefore, when determining the structure of crops cultivated in agriculture, preference should be given to products of strategic importance. As a result of the development of these fields and the effective organization of regional agricultural policy in Azerbaijan over the years, enterprises for the primary and subsequent processing of agricultural products operate along with big cities, in towns, and even large villages. Cotton, grapes, tobacco, tea, fruits, vegetables, livestock have been products are processed at these points. Production facilities, mainly in the light and food industries, play a leading role in the economic structure of the regions, not only providing the population with work but also play a key role in generating income and creating the social sphere.

However, the difficulties that emerged during the years of independence, like other leading sectors of the economy hurt the cultivation of agricultural products, its field and territorial structure, and the employment of the population in this industry [8,p.184]. Existing state and collective farms were abolished, their material and technical base was destroyed, and the land was privatized and distributed to the rural population.

There was a need for the creation of economic entities in place of abolished farms by the new economic conditions. Reforms in this area were undertaken to restructure the agricultural sector, and its legislative and economic base was established. Although the agrarian reforms in the country in the late XX century have had some effect on agricultural production, it will take longer to achieve the expected results.

Decisions on “Basis of agrarian reform”, “On reforms of state and collective farms”, “On land reform” (June 16, 1996), “On cooperatives”, “On amelioration and irrigation” were adopted for agrarian reform in Azerbaijan. As part of the implementation of these decisions, in 1996, 304 state farms, 656 state farms and inter-farm agricultural enterprises were abolished. As a result of land privatization, new agricultural entities were established, most of which were rural-farming and family farms.

In 2014, there were 1,869 agricultural enterprises and service organizations in the country. 1334 are agricultural enterprises and 535 are service organizations. 1624 individual entrepreneurs were engaged in this field [14,p.565]. In 2018, 1765 agricultural enterprises and 907 private businesses were registered in this area [13].

Government support in this area continued after the agrarian reforms in the country. Several documents were adopted: “On measures to improve management in the agrarian sector”, “On additional measures to expand leasing in the agrarian sector” in October 2004, “On State support to agricultural producers” in January 2007, “On additional support of agricultural producers to provide seeds, breed animals in August 2008”.

In August 2008, the “State on food security program of the Republic of Azerbaijan for 2008-2015” was adopted [5,p.327]. At the same time, three “State programs for socio-economic development of the regions” adopted in the country for the development of agriculture, the use of the natural and geographical and socio-economic potential of the regions, were of particular importance. They include improving government support for the production, supply, sale, storage and transportation of agricultural products and delivery to consumers, as well as improving its field structure, strengthening its logistics, purchasing machinery and equipment, mineral fertilizers, breeding animals and establishing individual and specialized farms, large scale activities.

In the course of implementation of the State programs, measures are being taken to increase agricultural production in different regions, to increase the area of cultivation, to improve irrigation conditions, to create new varieties of grain and breeding farms.

2015 is declared the “Year of agriculture” Increase the role of agriculture in the country’s economy, accelerate its development and modernization, provide a systematic and comprehensive approach to the solution of existing problems in the agrarian sector, and utilize the available potential for the intensive development of the agrarian sector of the country [6, p.400]. Requirements in the field of agricultural development have been adopted for its large-scale implementation The main directions are planned to support the development of agricultural products, strengthen the capacity in this area, improve the training of personnel to support its development, and implement measures to create a database.

During the period of agrarian reforms, there were significant changes in the field and territorial structure of agriculture in different regions of the country. In the early years of the reforms, the low material and technical base and the low level of financial security, the retention of small areas of land, and the difficulties to comply with agrotechnical rules have led to a decline in the leading sectors of agriculture, a significant reduction in the production of strategic areas. The recession in other areas of the

economy, the lack of employment opportunities and the closure of jobs in many areas has led to lower incomes, caused difficulties and shortages in the food supply.

In this situation, the agriculture of the country was of a consumer nature. As a result, the share of cereals, potatoes, melons and vegetables increased in the structure of crops. They meet the day-to-day needs of the population, making possible their quick stocking up and sales.

First of all, it should be noted that during the early years of the agrarian reforms in the country the sowing areas have been significantly reduced because the sale and cultivation of products in this area had serious problems. In 1990, the area of arable land in the country was 1462, 5 thousand hectares, and by 1995 their area was reduced to 1207, 900 hectares, and in 2000, to 1041.5 hectares. In 1990-1995 this decrease was 254.6 thousand ha or 17.4%, and in 1990-2000 it was 421,0 thousand ha or 28.8% [15,p.819]. The expansion of measures taken in recent years has enabled the involvement of new areas in crop rotation. Since the early 2000s, the country has increased the area under cultivation of crops and improved their irrigation conditions. In 2015, the country had 1585.4 thousand hectares of land and 1738 thousand hectares of land in 2018 [15,p.819].

However, despite the continuous expansion of cultivated areas, small land plots with family-owned farms prevail. The vast majority of them are engaged in cultivation in the areas of 3-5 hectares. Serious problems remain in these areas: cultivation, use of agricultural machinery and mechanisms, construction and maintenance of irrigation network, collector-drainage systems, cleaning of slime, harvesting and transportation. The use of soil cultivation techniques is more effective in at least 50 ha areas. For this purpose, it is necessary to unite the lands belonging to existing family-farm households. It is required to carry out explanatory work, prepare of its legislative base, the definition of rights and obligations of each shareholder. At the same time, the study of world experience in this area is one of the most important. A “Cooperative Law” was adopted to implement it.

Small-scale farms are still the leading producers of agricultural products in the country.

In the structure of crops, areas under cereals have steadily increased since the 1990s. In 1990, they were cultivated on 583, 4 thousand ha (39.9% of the total crop area). In 2000, grain and leguminous crops were planted on 648, 2 ha (62,2%), in 2010 on 968,0 ha (61,1%), in 2015 on 952,1 thousand ha (60,1%). In 2018 they occupied 1083, 1 thousand ha (62,3%) [5,p.327].

Wheat and barley occupy most of these areas. Over the past period, their sown areas increased 1.7-1.8 times. However, the low yields do not meet domestic demand. Domestic demand of the country is covered by 70-75% due to local production. This demand is 3,2-3,5 million tons, but the volume of products harvested from fields made up 2.4-3.0 mln.t (3,309.2 thousand tons in 2018) (Table 1). At the same time, special warehouses for product stock will help to reduce losses.

Table 1

Crop fields of agriculture products and dynamics of production in Azerbaijan

Products	<i>Crop fields, thousand ha</i>					<i>Harvested products, thousand t</i>				
	1990	2000	2010	2015	2018	1990	2000	2010	2015	2018
Grains	583,4	648,2	968,0	952,1	1083,1	1413,6	1540,2	2000,5	2999,4	3309,2
Wheat	368,6	495,4	657,7	539,7	679,1	911,9	1174,7	1308,9	1687,7	2042,9
Barley	190,0	108,5	264,7	361,0	337,2	463,2	226,2	526,2	1063,9	942,0
Corn	12,9	31,9	29,9	36,9	31,7	18,4	103,5	136,1	2014,1	247,9
Cotton	263,9	101,2	30,2	18,7	132,5	542,9	91,5	38,2	35,2	233,6
Tabacco	14,8	8,1	1,4	1,4	3,4	52,9	17,3	3,2	3,5	6,3
Sugar beet	-	2,5	8,5	4,9	8,6	-	46,7	251,9	184,3	277,2
Sunflower	0,9	4,3	9,0	10,7	11,6	0,6	3,7	15,5	18,4	23,6
Potatoes	23,8	52,5	65,8	61,0	59,3	185,2	469,0	953,7	839,8	898,9
Vegetables	40,3	56,8	81,1	77,2	69,5	856,2	780,8	1189,5	1275,3	1521,9
Gourds	9,1	26,8	31,9	27,8	20,9	67,5	261,0	433,6	484,5	401,9
Fruits andberries	136,0	83,1	127,7	144,1	199,7	367,4	477,0	729,5	888,4	1010,8
Grape	181,4	14,2	15,4	16,1	16,1	1196,4	76,9	129,5	157,1	167,6
Tea	13,3	5,4	0,6	1,0	1,1	30,7	1,1	0,54	0,58	0,87
Total	1462,5	1041,5	1583,9	1585,4	1738,0	-	-	-	-	-

Source: The Agriculture of Azerbaijan- 2012. Baku, SSK, 2013, p. 74, 77, 80, 89, 99, 101, 139, 145. “Agriculture of Azerbaijan” -2018. Baku, DSK, 2019, p. 71-76, 90-91, 128, 130.

Potatoes are also one of the most important food crops in the years of independence. Potatoes, which are the second food crop and occupy a significant part in the ration, are cultivated in the individual

fields of almost all regions of the country. On the plains and foothills, it is possible to collect 2-3 harvests of potatoes. However, Shamkir, Tovuz, Jalilabad and Gadabay regions are leading in the collection of this product. In 1990, potatoes were planted on an area of 23.8 thousand ha, and 185, 2 thousand tons of products were collected. Later, there has been a significant increase in the volume of harvested crops along with its cultivated areas.

In 2000, potato cultivation was 52,5 thousand ha, harvesting 469,0 thousand tons, and in 2007, these figures increased to a maximum: 1081, 1 thousand tons of crops were harvested from 70, 7 thousand ha.

In recent years, the country has 60-65 thousand ha of potatoes and an average of 850-900 thousand tons of potatoes are collected. This product is sufficient to meet domestic demand.

In the coming years it is possible to increase the potato crop, and at the same time increase the productivity of potatoes in these areas. In this case, a significant part of it can be exported to near and far countries. Potatoes are a popular food all year round. Therefore, the export potential of this product is wide. At the same time, as it is quickly deteriorated, chambers and refrigerators should be sufficient for storage. In addition, the acquisition of new high-yielding varieties of grain, labour-intensive agrotechnical procedures, extensive use of mineral fertilizers, and timely collection of products will increase production.

Vegetables are among the most important sectors of the country's agriculture. Although for many years, this area has been one of the major sectors in the economic regions of Guba-Khachmaz and Lankaran-Astara, it has developed throughout the country, with products dominating the needs of the domestic market as well as being exported products.

Vegetables, which are considered to be one of the main foods in the diet, are very important. In the process of land reform, crop areas and harvest volumes have increased significantly. Quick income-generating vegetable, made mainly for the domestic market, are now cultivated all over the country, most of which are used for personal consumption. In 1999, the harvest of vegetables in the area of 40,3 thousand ha was 856,2 thousand tons. Since 2000, these figures have been steadily increasing, with 780,0 thousand tons harvested from 56,8 thousand ha, in 2010, 1189,5 thousand tons of products were harvested from 81,1 thousand ha. In recent years, the area under cultivation for this area has declined slightly but remains 71-76 thousand ha. 1, 2-1, 5 mln.t is collected from these fields, the harvest varies around 140-150 quintals per hectare.

Vegetable farming is an area of agriculture that contributes to the establishment of processing industries in the country. There are many canning companies in the country using products from these fields, and their number is steadily growing. The administrative districts of Aghdam, Astara, Goychay, Khachmaz, Barda, Lankaran, and Masalli are leading places for the collection of vegetable products.

At the same time, greenhouses are created to provide the population with vegetable products throughout the year, and their products are sent to foreign markets, primarily to Russian markets, along with the domestic market.

Recently, in some areas of the country, agro-parks have been established, and vegetable crops also, play an important role in their cultivation. Therefore, there is great potential for further development of this sector soon [1, p.416]. Their use would help to increase the importance of agriculture in the structure of the economy.

One of the main types of good consumed by the population are gourds. This area is also one of the most widely used agricultural fields in the years of independence. Its products do not allow the creation of facilities in the processing industry while providing the population with quick income. Therefore, it cannot be considered a strategic area in agriculture.

In 1990, the country planted 9.1 thousand hectares of melon and harvested 67,5 thousand tons. In 2000, in this area, 261,000 tons were harvested from 26,8 thousand ha, in 2010, 433,6 thousand tons from 31,9 thousand ha. In recent years, 27-28 thousand hectares of land is allocated for gourds. 440-450 thousand tons of products are collected from these areas. They mainly meet the needs of the domestic base. After the construction of a sugar factory in Imishli, sugar beets were needed to provide the enterprise with raw materials. However, this area is poorly developed, and the harvested products cover only a small portion of the enterprise's raw material demand. In 2014, 5,7 thousand hectares of sugar beet were planted, and 173, 3 thousand tons were harvested. In 2018, 277, 2 thousand tons were collected from 8, 6 thousand hectares. It is necessary to reach 80,000 ha of sown areas to provide the enterprise with raw materials.

Factors that adversely affect agriculture in the process of agrarian reform are the decline in the production of strategic products such as cotton, tobacco, grapes and tea [4, p.301]. These areas are

the main agricultural sectors, and they are highly valued both in the domestic and global markets. Numerous light and food processing facilities operate based on the processing of their products. These areas also provided jobs for the vast majority of the urban population.

For many years, cotton has been one of the major agricultural fields of the country. The large cotton region was formed on the territory of the Aran economic district due to hot and dry summers, high agro-climatic resources, fertile soil, water resources of Kura and Araz rivers. A tight network of collector-drainage systems was maintained for this purpose, and a powerful infrastructure was established. However, in the transition period, cuts in state support, the abolition of economic entities, and the decline in cotton production have put this area at risk of extinction.

In 1990, 263,9 thousand ha of cotton was planted in the country, and 542,900 tons were harvested from these areas (Table 1). Later, there has been a significant decline in all indicators in this area. By 2000, the sown area decreased by 2,6 times to 101,2 thousand ha, crop yield decreased by 5,9 times to 91,5 thousand tons. The productivity decreased from 20,6 q/ha to 9,1 q/ha. Declines in this area have also occurred in recent times. Thus, cotton plantations in the country occupied 22,900 ha in 2014, and 41, 0 thousand tons of products were collected.

The decline in production has led to the suspension of the cotton processing plants and the closing of the textile enterprises. This has led to the fact that the population and economic sectors in the country are fully covered by exports for light industry products. In recent years, measures are being taken to revitalize this area, and they are already yielding results. Tobacco and tea are included in this list of agricultural products. In 1990, tobacco plantations occupied 14,8 thousand ha and tea plantations 13,3 thousand ha. 52,900 thousand tons of tobacco and 30,7 thousand tons of tea were collected from these areas. The major part of these products has become the final product in the processing facilities operating in the country. Till 2000, tobacco plantations decreased by 1,8 times, harvests by 3,0 times, tea plantations by 2,5 times, harvest by 30 times. Until recently, each plant had a total area up to 1,0 thousand ha and was in danger of extinction. Currently, the planting of these products will be increased in this area, which will allow increasing production (Table 1).

Apart from being one of the leading agricultural sectors in Azerbaijan, fruit growing exists as specialized areas in some economic regions. Due to the variety of natural and geographical conditions, the types of fruits and berries cultivated in the economic regions also differ. But, there is not a significant change in the dynamics of cropland during the transition period. However, there has been some increase in product production. It is primarily due to increased productivity. That is why fruit growing today keeps its important place in the structure of agriculture and the economic structure of the regions. However, there is a need to increase the network of enterprises in the area of processing their products.

In 1990, fruit orchards existed in 136, 0 thousand ha in the country, 113, 5 thousand ha of them were in the fertile age. 367,400 tons of products were collected from these fields. Although there have been some lags in this sector since 2000, the area under cultivation has since been expanded and its cultivation reached the 1990s. In 2014, 850, 8 thousand tons of fruits were harvested from 138, 5 thousand ha. The productivity increased by 2,5-2,8 times and exceeded 70 q/ha over the past period. In 2018, the harvest from 200 thousand ha of fruit orchards made more than 1,0 million ton [15, p.819].

Viticulture has also been one of the leading agricultural sectors. A recession began in this area in the mid-1980s [10, p.424]. In 1990, the harvest from the vineyards of 181,400 hectares made 1196,4 thousand tons. However, in 2000 these figures dropped to 14,2 thousand hectares and 76,9 thousand tons. In subsequent years there has been little change in cultivation. The production increased to 147, thousand tons in 2014 and to 167,6 thousand tons in 2018. This was due to increased productivity.

Livestock is one of the key areas of agriculture, and it becomes more important in recent years in ensuring food security of the population. In the result of agrarian reforms, the livestock kept by kolkhozes and sovkhoses was distributed to the rural population, and the livestock farms were abolished. Most of them were destroyed. Therefore, today livestock is entirely based on personal property. Although large-horned cattle-breeding and small-scale horned cattle have been developed, areas such as pigs, buffalo and silkworm breeding are undergoing a recession. After the second half of the 1990s, agrarian reforms in the country have steadily increased the number of livestock and sheep. The number of large-horned cattle-breeding has increased from 1681,7 thousand in 1995 to 2369,8 thousand in 2005 and 2658, 8 thousand in 2019. The number of sheep and goats was 8677,1 thousand in 2016 and 8304,1thousand in 2019. Beekeeping also increased during this period.

Obtained success especially allows meeting the needs of the population of livestock goods production and raw materials of light and alimentation industry. There are problems to meet the needs of the population in milk, milk products, and butter [3, p.360].

In recent period, in the country, the interest grows for livestock field. Since 2014, this field delivers the main part of agriculture products. Because the sale price of crops is decreased, many areas of plant growth, especially grain and vegetable growing have a low-profit margin. Therefore, wheat crops are decreasing in recent years, the part of barley and corn fields is insensibly growing, forming the feed base of livestock. Feed plants areas are increasing.

In addition, there are numerous problems with the establishment of material and technical base in plant growing, the stocking up and sale of products, and low productivity reduces revenues.

Changes in agriculture, especially in the livestock sector over the past few years can be considered as a turning point. State support for the development of animal husbandry is constantly increasing. Importing productive breeds from abroad, providing preferential terms to the population, and purchasing artificial insemination to domestic animals increased interest in this area. In the regions, more and more people use these opportunities. This field is growing rapidly, in the result.

Results. During the years of independence, the agricultural sector has undergone major changes, the role of those areas having strategic importance, export potential, and the creation of processing facilities has diminished. Distribution of soils to small populations does not allow the application of advanced methods, cultivation of agricultural products, use of productive seeds and animal breeds. Therefore, the share of this sector in GDP is low and does not meet the population's demand for many products.

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