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**TRENDS AND GOALS OF THE COMPETITIVITY OF THE AGRICULTURAL  
SECTOR OF THE REPUBLIC OF MOLDOVA**

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**Abstract:** *Competitiveness is an important factor in the viability of companies and the economy in general. Globalized trade relations have placed the subject of competitiveness on several levels - micro, medium, macro and meta-economic, which interact and influence each other. The issue of competitiveness of the agricultural sector is extremely important, given its GDP and the number of people employed in this sector of the national economy. The development of agricultural competitiveness in the Republic of Moldova was analysed on the basis of a statistical data analysis. The dynamic analysis of the data allowed to be observed the trends and goals of competitiveness of the given sector.*

**Keywords:** *competitiveness, agriculture, strategy*

**JEL classification:** Q18, Q19

**UDC:** 338.43:339.14(478)

## **1. Introduction**

The scale and impact of agriculture in the 21st century are more important than previously thought. Its multifunctional nature demonstrates that modern agriculture does not only have the role of providing food. We can say with certainty that, being in an obvious cohesion with rural areas, agriculture is interdependent with the environment, which gives it, in addition to the important economic role, an ecological and a social role. Even its primary production function has changed, with a focus now on food safety and diversity, and the 21st century has brought new challenges for agriculture, such as price volatility, climate change and rural poverty [12].

One of the problems related to the competitiveness' evaluation is the multilateral understanding of this term. Regardless of the level of analysis, competitiveness (or, in other words, market rivalry) manifests itself and is studied at the world economic, macroeconomic (country), branch (internal or external market), enterprise and product or commodity (service) level [8, p.127].

*At the macro-level*, competitiveness (competitiveness) can be defined as the country ability to generate more added value than its competitors in the world or the national capacity to achieve growth. Economists of the Organization for Economic Co-operation and Development have described the policy of competitiveness as a support to increase the abilities of companies, industries, regions to generate and maintain a high level of income and employment [4, p.13]. Thus, according to this view, a national economy can be called competitive, only if:

- its productivity grows at a rate equal to the grows-rate of its commercial partners with a comparable level of development;
- the exports dominates in the commercial trade-balance;
- a high level of employment is keeping on.

*The competitiveness of the branch/sector* (industry, agriculture, etc.) can be analyzed at the level of the internal market and the external market. The competitiveness of the *domestic branch or sector* is determined by obtaining competitive advantages and performance of the firms in this branch or sector in comparison to the firms in the other branches or sectors of the national economy.

*The competitiveness of the industry branch or sector at the external level* can be valued by the capacity to a massive and large export, including of capital, in a considerable number of countries.

Competitiveness has a dual function:

- following the evolution of the organization;
- orientation towards different ways (quality, accuracy, cost, reliability, change) to maintain the niche market or to maintain market expansion.

Thus, competitive forces organizations to be in a state of competition, the success of this rivalry being expressed by the position, segment or niche that the economy or organization occupies.

The generalized definition of competitiveness expresses the capacity of companies, firms, economies, regions to maintain in the internal and international trade rivalry and to obtain economic advantages from it. Being presented for the first time by Michael E. Porter [9] through the "diamond" of competitive forces (Figure 1), the rivalry was later researched in areas, activities and branches in order to identify the particularities of specific competitive relationships.

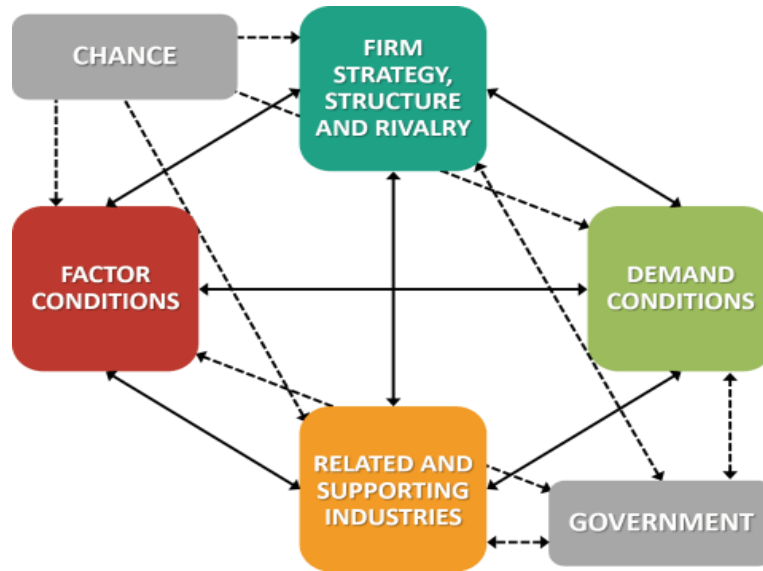


Figure 1: The Complete System of Competitive Forces  
(Porter's Diamond Model of National Competitive Advantage)

Source: [9, p. 127]

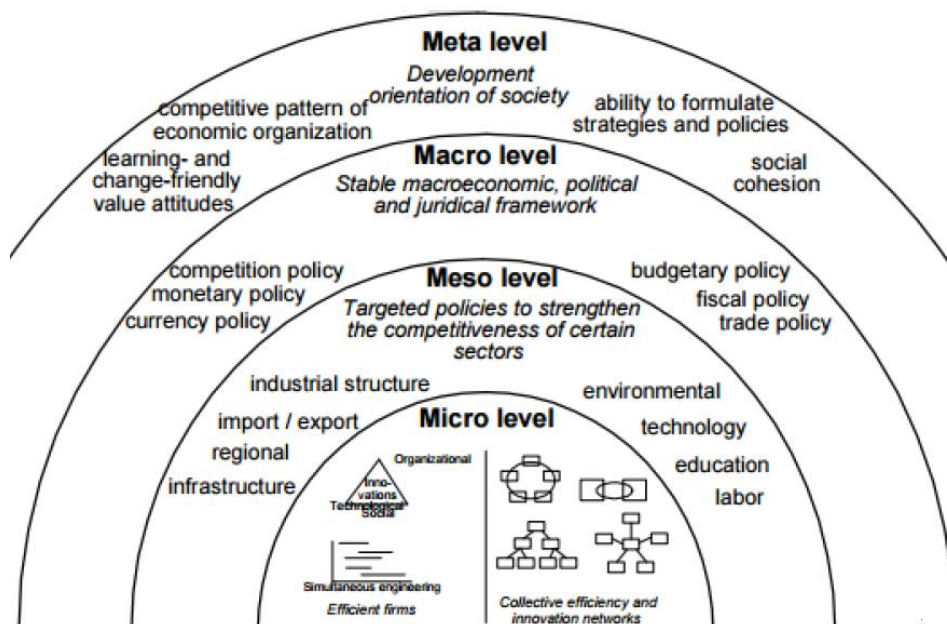


Figure 2. The Determinants of Systemic Competitiveness

Source: [1, p. 1 of maintext]

Also, some researchers (Tilman Altenburg, Wolfgang Hillebrand, Jörg Meyer-Stamer) [1] approached the systemic vision of competitiveness, in which the determinants are grouped on 4 levels: micro- meso-, macro-, meta- (Figure 2). In the systemic approach to competitiveness, in addition to the factors determined at the micro- (enterprises, consumers and transactions), meso (branches, industries, regions) and macro- (trade and exchange rate, trade and fiscal policy external analysis, etc.) levels the analysis of the meta-level is also necessary, in order to determine the role of the state in creating the conditions that more or less influence the sustainable economic development; how public and related institutions interact, as well as which are objectively pursued in the context of economic development in the context of their interaction.

Respectively, the competitive strategies of some sectors of the national economy can be placed in a system of systemic relations that allow their extrapolation through all levels which are higher than the microeconomic one (Figure 3).

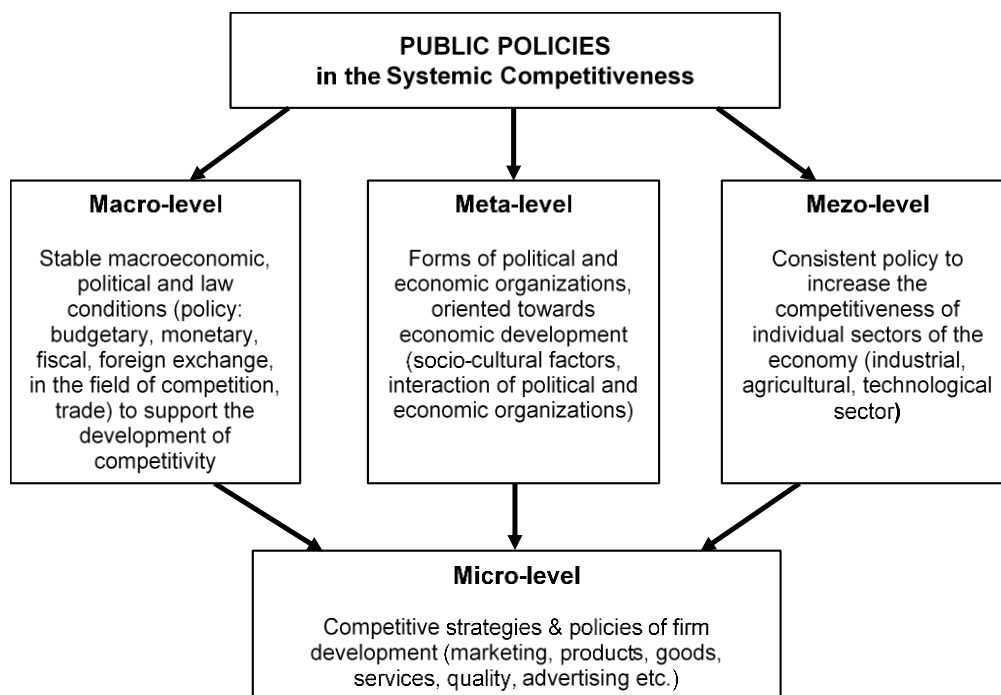


Figure 3. The role of public policies in the Systemic Competitiveness

Source: developed by author

A firm's or industry sector's competitiveness refers to how to the way in which it relates to its market rivals, representing the ability of successfully selling of goods or services. In the medium and long term, the other parameters that we are tempted to associate with the concept of economic success (first of all, profit) are subordinated to the 'market segment' parameter.

## 2. Applied research methods and materials

The development of the Republic of Moldova agricultural sector competitiveness was evaluated by an analysis of statistical data. The analysis allowed to identify the trends of competitiveness of the given sector. The used database was <https://statistica.gov.md/>

## 3. Obtained results and discussions

### Analysis of agricultural sector of the Republic of Moldova

Even if the role of the agricultural sector for the national economy of Moldova is important for ensuring food security, the share of agriculture's contribution to the formation of Gross Value Added (GVA) and Gross Domestic Product (GDP) is decreasing. (Figure 4, Table 1).

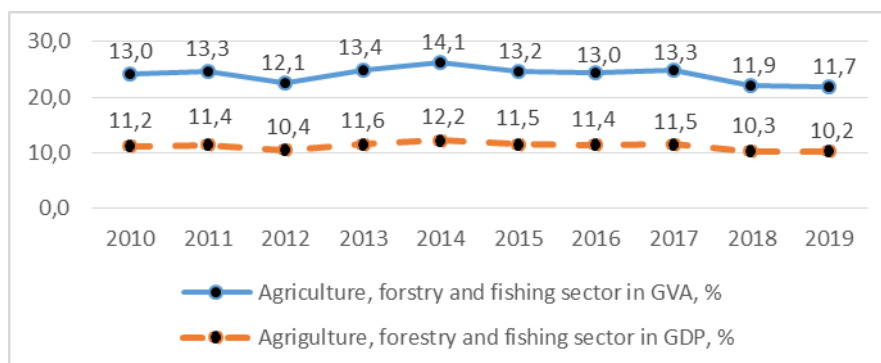


Figure 4. Share of agriculture, forestry and fishing sector participation in Gross Value Added (GVA) and Gross Domestic Product (GDP) formation, %

Source: developed by author according to [11]. Selected from:

[https://statistica.gov.md/public/files/serii\\_de\\_timp/conturi\\_nationale/serii\\_anuale/PIB\\_resurse\\_utilizari\\_2010\\_2019.xls](https://statistica.gov.md/public/files/serii_de_timp/conturi_nationale/serii_anuale/PIB_resurse_utilizari_2010_2019.xls)

Table 1. Evolution of agricultural production and GDP, millions of Lei MD

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Agriculture, forestry and fishing	9.629	11.244	11.020	13.806	16.317	16.769	18.330	20.521	19.772	21.397
Gross Value Added - GVA	74.310	84.813	90.938	102.741	115.935	127.063	140.887	154.814	166.472	183.074
Contribution of Agriculture, forestry and fishing sector to GVA formation, %	13,0	13,3	12,1	13,4	14,1	13,2	13,0	13,3	11,9	11,7
Gross Domestic Product - GDP	86.275	98.772	105.480	119.532	133.481	145.753	160.814	178.880	192.508	210.378
Share of Agriculture, forestry and fishing sector in GDP, %	11,2	11,4	10,4	11,6	12,2	11,5	11,4	11,5	10,3	10,2

Source: developed by author according to [11]. Selected from:

[https://statistica.gov.md/public/files/serii\\_de\\_timp/conturi\\_nationale/serii\\_anuale/PIB\\_resurse\\_utilizari\\_2010\\_2019.xls](https://statistica.gov.md/public/files/serii_de_timp/conturi_nationale/serii_anuale/PIB_resurse_utilizari_2010_2019.xls)

At the same time, the rate of annual increasing of agricultural sector is much lower than average increasing of GDP (Figure 5).

It should be mentioned that according to Moldova National Statistics Bureau, the Agricultural sector includes in statistical evidence agricultural, forestry and fishing activities. Because the last two (forestry and fishing) has a small percentage, we can analyse statistical data addressing them mostly to agricultural activities.

For the period 2010-2019, the share of agriculture decreased from 11,2% to 10,2%. This trend shows that low rates of development of agricultural technologies and management of agri-food enterprises have influenced the distribution of GDP sources for the processing of non-food raw materials and services.

The Republic of Moldova is characterized by a variable continental, semi-humid climate, often with a high deficit of soil moisture, frequent droughts, floods, hail and frost. Agriculture is one of the most vulnerable sectors of the national economy in climatic conditions. Climate instability is one of the main causes of low yields and poses an imminent risk to agriculture. The average monthly temperatures were between  $-8.5^{\circ}\text{C}$  in January and  $+26.0^{\circ}\text{C}$  in August. The warm period of the year lasts about 190 days. The annual intensity of precipitation decreases from northwest to southeast.

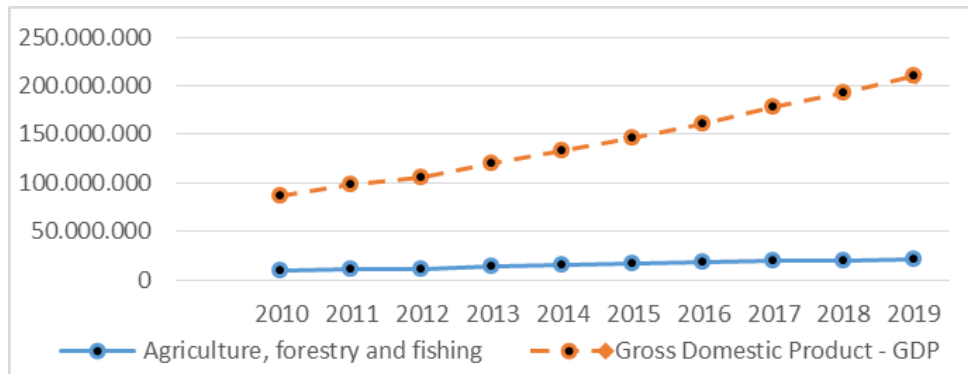


Figure 5. Evolution of agricultural production and GDP, millions of Lei MD

Source: developed by author according to [11]. Selected from:

[https://statistica.gov.md/public/files/serii\\_de\\_timp/conturi\\_nationale/serii\\_anuale/PIB\\_resurse\\_utilizari\\_2010\\_2019.xls](https://statistica.gov.md/public/files/serii_de_timp/conturi_nationale/serii_anuale/PIB_resurse_utilizari_2010_2019.xls)

Annual fluctuations in agricultural production are largely due to climatic and external factors. The Republic of Moldova is a risk zone for agriculture, as there are frequent periods of droughts and floods. Likewise, external factors that have negatively influenced the agricultural sector are related to restrictions and embargoes imposed on Moldovan agricultural producers, given the traditional economic ties with the market in the Russian Federation, where fresh vegetables are exported en masse (Figure 6).

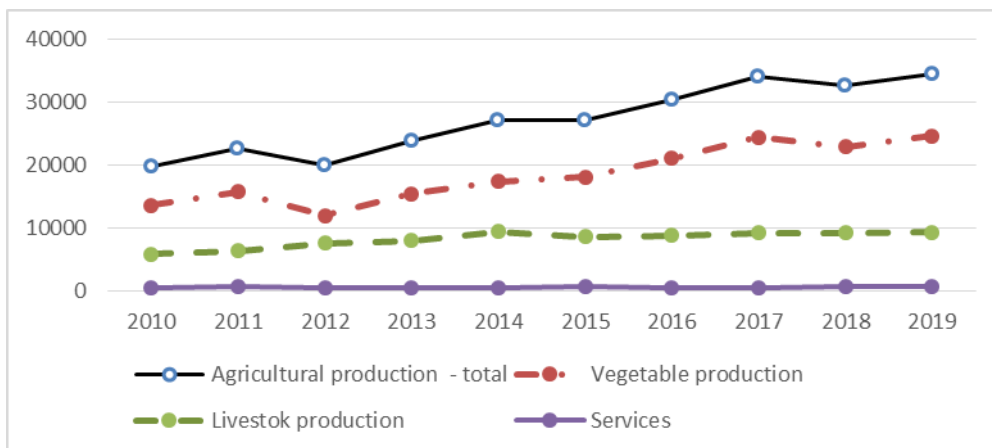


Figure 6. Evolution of agricultural production, millions of Lei MD

Source: developed by author according to [11]. Selected from:

[https://statbank.statistica.md/PxWeb/pxweb/ro/40%20Statistica%20economica/40%20Statistica%20economica\\_16%20AGR\\_AGR010/AGR010100.px/?rxid=b2ff27d7-0b96-43c9-934b-42e1a2a9a774](https://statbank.statistica.md/PxWeb/pxweb/ro/40%20Statistica%20economica/40%20Statistica%20economica_16%20AGR_AGR010/AGR010100.px/?rxid=b2ff27d7-0b96-43c9-934b-42e1a2a9a774)

Table 2. Evolution of agricultural production, millions of Lei MD

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
<b>Agricultural production - total</b>	19873	22619	19922	23814	27254	27193	30362	34142	32637	34597
<b>Vegetable production</b>	13616	15751	11968	15480	17341	18082	21098	24435	22883	24670
<b>Livestok production</b>	5786	6347	7529	7930	9417	8584	8768	9191	9190	9248
<b>Services</b>	471	521	425	404	496	527	496	516	564	679

Source: developed by author according to [11]. Selected from:

[https://statbank.statistica.md/PxWeb/pxweb/ro/40%20Statistica%20economica/40%20Statistica%20economica\\_16%20AGR\\_AGR010/AGR010100.px/?rxid=b2ff27d7-0b96-43c9-934b-42e1a2a9a774](https://statbank.statistica.md/PxWeb/pxweb/ro/40%20Statistica%20economica/40%20Statistica%20economica_16%20AGR_AGR010/AGR010100.px/?rxid=b2ff27d7-0b96-43c9-934b-42e1a2a9a774)

The increase in GVA and GDP is due to the increasing share of industry, construction and non-industrial activities (trade, information and communication services, financial and insurance activities, real estate transactions). According to the growth rate of GVA and the number of employees in the economy, we can see that in these economic areas the result of growth is due to increased labour productivity and commercial transactions.

An opposite situation is observed in the agricultural sector, which accounts for about 30% of the total number of people employed in the economy (Figure 7), but has an contribution to GVA of about 13%, with a downward trend in recent years (2017-2019), presented in figure 4 and table 1.

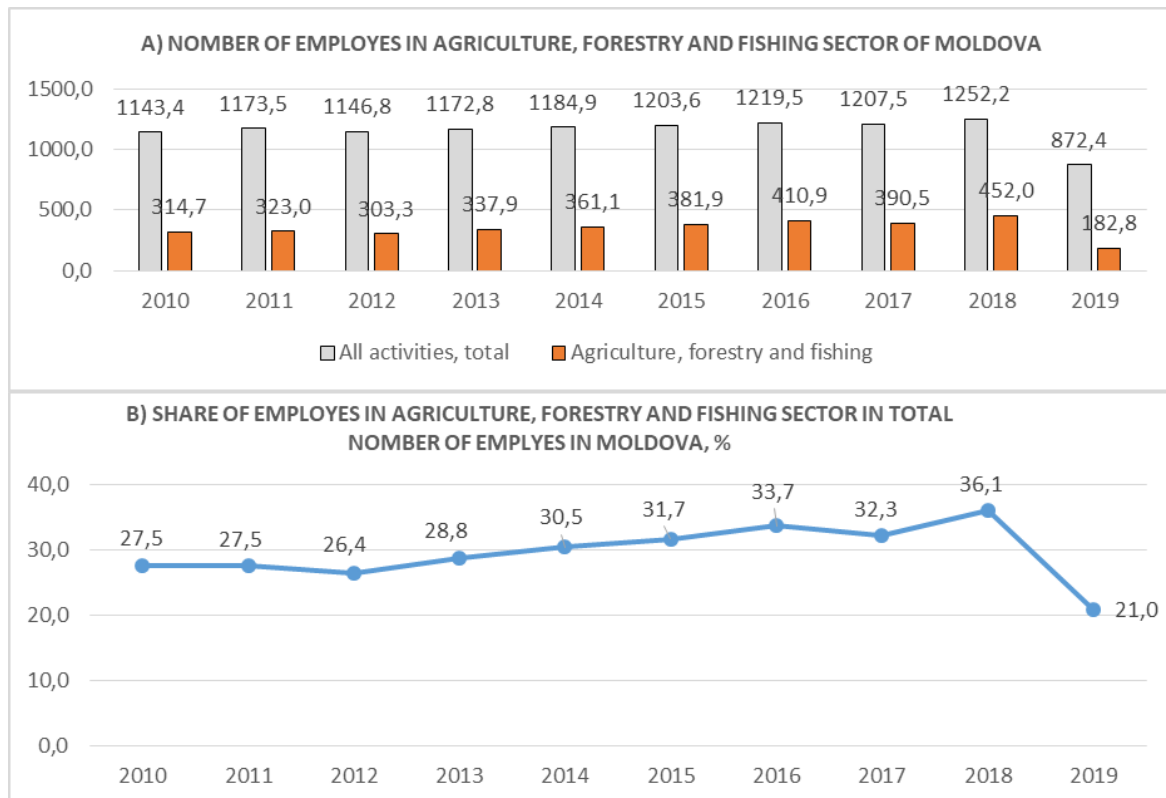


Figure 7 (a, b) Evolution of the employees in agriculture, forestry and fishing sector of Moldova

Source: developed by author according to [11]. Selected from:

For 2010-2018 see:

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Expansion of arable land, reduction of forest and pasture areas, increased erosion of slopes and desertification have negatively affected the hydrological regime of the territory. The main sources are rainwater and melt water. Water resources consist of surface water from rivers, lakes and groundwater. The total area of the reservoir is 76,214 hectares, including ponds (36,718 hectares). The largest water resources are the transboundary rivers Dniester (about 57%) and Prut (10%). The water quality in the Dniester and Prut rivers is acceptable and can be used for various purposes. The volume of surface waters and their runoff have decreased. The amount of surface water has decreased by 30-50% compared to the annual average in several important hydrographic regions (such as the Dniester and Prut rivers) and by 20-40% in hydrographic regions and small river basins. Rivers and ponds are heavily polluted with high salinity. Only 50% of the groundwater reserves meet the quality requirements. Only river

water can be used for irrigation, while inland water is mostly unsuitable. The southern part of the country has a high degree of mineralization and a greater water deficit.

The irrigation sector of the Republic of Moldova is in a precarious state and hinders the development of the agricultural sector. The Republic of Moldova has a potential of 144,600 ha of irrigated land (230,000 ha in 1990). In total, there are 78 centralized irrigation systems in the country that are located on an area of 131-688 ha. These irrigation systems have been in operation for 35-50 years. About 60% of them need rehabilitation (pumps, electrical and control panels, basins, water pipes, etc. must be replaced). Currently, only about 10-20% of irrigated agricultural land is irrigated. Organizational changes, land subdivision and privatization of hydro technical heritage have reduced the integrity and complexity of hydrological systems, significantly reducing the volume of agricultural production on irrigated land. As these factors are analysed and remedied, the demand for water in the irrigation sector is likely to increase substantially, especially given the consequences of climate change on rain-dependent agriculture. Decreasing rainfall and increasing demand for irrigation water mean that if adaptation measures are not implemented, climate change will lead to conflicts over water resources and lead to unsatisfied high demand for irrigation.

Reduced access to irrigation services due to the deterioration of state irrigation systems over the last decade is a serious impediment to the process of transition to a high-valuable agriculture and higher yields, respectively.

Analysing the indicators of the volume of agricultural production in the Republic of Moldova in the period 2010-2019, it was found that the main income received in the agricultural sector comes from the cultivation of 4 annual crops (wheat, sugar beet, corn, sunflower), pome fruits, stone fruits, table and technical wine grapes, and also meet (Table 3).

Table 3. Main agricultural products in households of all categories, thousands of tons

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
<b>CROPS PRODUCTS</b>										
<b>ANNUAL CROPS</b>										
Wheat (autumn and spring)	744	795	495	1009	1102	922	1293	1251	1163	1148
Grain corn	1420	1468	572	1419	1556	1077	1392	1773	2074	2130
Sugar beet	838	589	587	1009	1356	538	665	876	707	607
Sunflower	382	427	296	505	548	485	677	804	789	811
Potatoes	280	351	182	240	268	158	214	197	175	177
Field vegetables	331	351	226	285	316	235	281	297	270	294
<b>PERENNIAL CROPS</b>										
Pome fruits (apples, pears, quince)	1137	1358	1487	1998	2387	1599	1928	2677	3619	3411
Stone fruits (cherry, apricot, peach, plum)	274	193	219	435	521	637	677	654	920	912
Table winegrapes	76	180	134	255	278	311	354	460	484	433
Technical winegrapes	643	1144	1024	1522	1176	1144	1267	1549	1793	1433
<b>LIVESTOCK PRODUCTS</b>										
Sale of livestock and poultry for slaughter	385	442	537	437	581	704	762	769	836	856
Cow's milk	144	147	155	157	213	225	246	242	218	234
Eggs of all kinds, millions of pieces	276	241	242	242	246	253	292	316	317	297

Source: developed by author according to [11]. Selected from:

For Vegetables production see:

[https://statbank.statistica.md/PxWeb/pxweb/ro/40%20Statistica%20economica/40%20Statistica%20economica\\_16%20AGR\\_AGR020/AGR020100.px?rxid=b2ff27d7-0b96-43c9-934b-42e1a2a9a774](https://statbank.statistica.md/PxWeb/pxweb/ro/40%20Statistica%20economica/40%20Statistica%20economica_16%20AGR_AGR020/AGR020100.px?rxid=b2ff27d7-0b96-43c9-934b-42e1a2a9a774)

For Livestock production see:

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The analysis of the dynamics of agricultural production shows the presence of a tendency to increase the production of corn, wheat and sunflower, seeds, and meat production. (Figure 8 a, b, c).

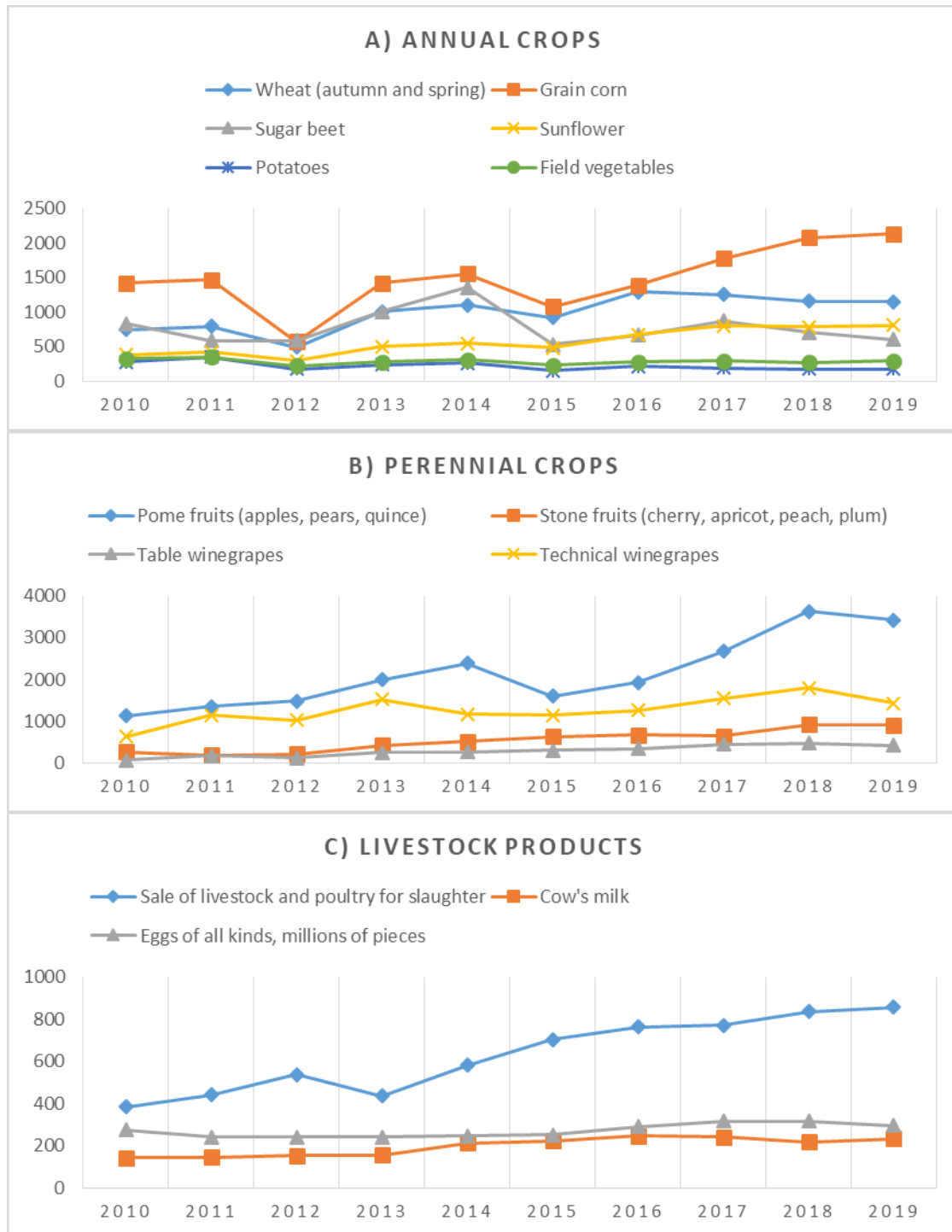


Figure 8 (a,b,c) The dynamics of main agricultural products, 2010-2019

Source: developed by author according to [11]

Selected from:

For Vegetables production see:

[https://statbank.statistica.md/PxWeb/pxweb/ro/40%20Statistica%20economica/40%20Statistica%20economica\\_16%20AGR\\_AGR020/AGR020100.px/?rxid=b2ff27d7-0b96-43c9-934b-42e1a2a9a774](https://statbank.statistica.md/PxWeb/pxweb/ro/40%20Statistica%20economica/40%20Statistica%20economica_16%20AGR_AGR020/AGR020100.px/?rxid=b2ff27d7-0b96-43c9-934b-42e1a2a9a774)

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The incomes of employees in the Agricultural sector are much lower than the average for the economy. Statistical data show a general discrepancy between the incomes of agricultural workers and the average level of gross wages per economy (Table 4). Despite the fact that during the period 2014-2019 there was an increase in the average gross wage in all sectors of the economy, the average wage in agriculture is only 64.4% of the average wage in the economy. Same the dynamics of growth of the average gross wage in agriculture is lower than the overall dynamics of the economy (Figure 9). This discrepancy is caused by the rapid growth of wages in other sectors of the economy.

Table 4. Average monthly gross salary by type of activity and sector of the economy, Lei MD

	2014	2015	2016	2017	2018	2019
<b>Economic activity - total</b>	<b>4089.7</b>	<b>4538.4</b>	<b>4997.8</b>	<b>5587.4</b>	<b>6268.0</b>	<b>7233.7</b>
<b>Agriculture, hunting and related services</b>	<b>2616.3</b>	<b>2880.6</b>	<b>3172.8</b>	<b>3586.8</b>	<b>4088.4</b>	<b>4680.0</b>
Industry	4388.1	4855.2	5267.9	5815.8	6485.7	7151.0
Construction	4165.7	4378.1	4843.2	5544.2	6198.2	7155.3
Wholesale and retail trade; Maintenance and repair of cars and motorcycles	3367.5	3870.6	4246.4	4901.2	5414.9	6543.9
Transport and storage	3939.5	4282.3	4778.6	5313.8	5985.6	6836.2
Accommodation and catering	2757.4	3043.7	3331.3	3668.0	4248.5	4973.0
Information and communication	8404.0	9514.0	11041.6	12011.7	13620.3	15785.4
Financial and insurance activities	7505.3	8093.5	10152.2	10743.7	12090.2	13203.5
Real estate transactions	3583.1	4005.2	4595.8	4834.6	5119.8	5906.1

Source: developed by author according to [11]. Selected from:

[https://statbank.statistica.md/PxWeb/pxweb/ro/30%20Statistica%20sociala/30%20Statistica%20sociala\\_03%20FM\\_SAL010\\_serii%20anuale/SAL010100.px/?rxid=b2ff27d7-0b96-43c9-934b-42e1a2a9a774](https://statbank.statistica.md/PxWeb/pxweb/ro/30%20Statistica%20sociala/30%20Statistica%20sociala_03%20FM_SAL010_serii%20anuale/SAL010100.px/?rxid=b2ff27d7-0b96-43c9-934b-42e1a2a9a774)

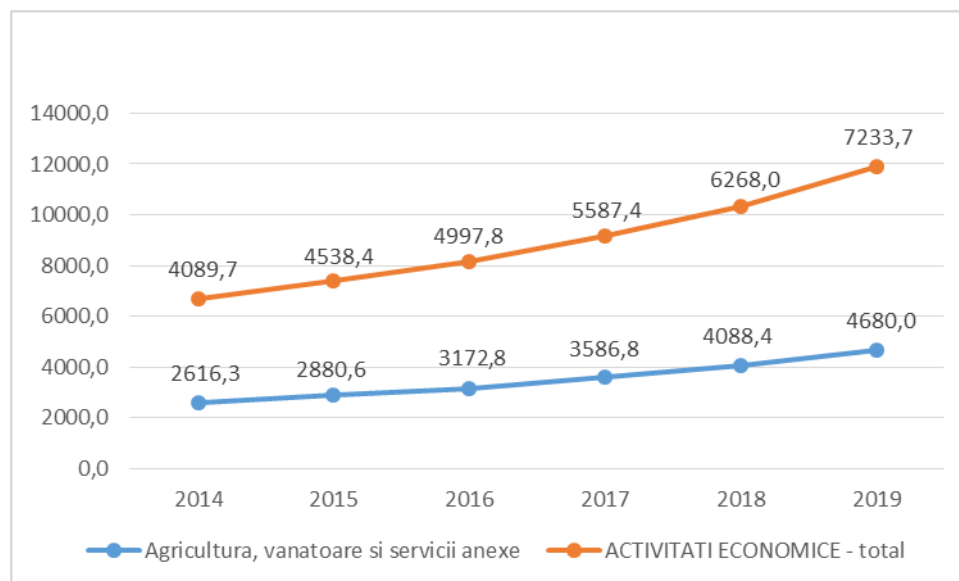


Figure 9. Dynamics of average monthly gross wages in the agricultural sector, Lei MD

Source: developed by author according to [11]. Selected from:

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As a consequence of the described situation, there is a decrease in the population's interest in working in agriculture and an increase in labour migration from rural to urban areas.

In order to reduce the negative impact of the drought and to offer a support for agricultural producers, in 2010 the Republic of Moldova signed the COMPACT agreement worth about 262 million US dollars. One of the strategic projects of this program is the project "Transition to a

performed agriculture", which is aimed at rehabilitating the irrigation system, reforming the irrigation sector, providing training in agricultural facilities.

It is known that the export is an important factor that determines the competitiveness of an economy. It is highly important to determine the sectors of the national economy that in comparison with neighbouring countries registers competitive advantages.

The European Union (EU) and the Commonwealth of Independent States (CIS - predominantly Russia and Belarus) are two key vectors of Moldova's agri-food trade. The development of trade relations in these two directions takes place on the basis of the Deep and Comprehensive Free Trade Agreement (DCFTA) between Moldova and the EU, as well as the Eurasian Economic Union (EAEU) / Eurasian Custom Union (ECU) agreements, where Moldova benefits from CIS membership status.

It should be noted that until 2013, the basic market for Moldovan farmers was that of the Russian Federation. However, after the Russian Federation imposed a large number of embargoes on agri-food production of the Republic of Moldova, the Moldovan farmers lost this largest market, suffering colossal losses. For example, in 2014, according to official data, the losses suffered by Moldovan farmers in this year were amounted to about \$ 20 million, but some experts say that the losses imposed by the 2014 embargo imposed by the Russian Federation were exceed \$ 100 million.

The decline of exports to the Russian Federation can be seen "in the context of recent constraints: political crisis, restrictive measures imposed by the Russian Federation on Moldovan products, the armed conflict in eastern Ukraine, EU sanctions against the Russian Federation and mutual restrictions, the banking crisis, devaluation of the Moldovan currency (LEU), appreciation of the US Dollar exchange rate, unfavourable climatic conditions, the reduction of prices for certain products at international level, etc." [12]

Despite the European integration vector, in order to maintain the competitiveness of the agricultural sector, the Republic of Moldova must maintain trade relations with the countries of the Eurasian Customs Union, which represents a strategic partner for the Republic of Moldova, but also to penetrate another market.

Along with promoting the vector of European integration, in order to keep the competitiveness of the agricultural sector, the Republic of Moldova must maintain trade relations with the countries of the Customs Union, which is a strategic partner for the Republic of Moldova, but also to enter another market [5, p.134].

It must be mentioned that the history of Moldova' foreign trade exclusively oriented to the Eastern Customs Union (ECU) has generated many risks for the national economy, such as: dependence on one market, which is in contradiction with the general state policy which follow the purpose to develop the competitiveness of national production.

Due to a significant share of vegetable agricultural products in the exports of Moldova, as well as to valorise the opportunity to increase the competitiveness of Moldovan agricultural products through the access of own horticultural products to the EU market, as a result of signing the Trade and Association Agreement, and in order to comply with ECU import standards, it is necessary to assess the problems facing Moldova's agricultural sector.

In our opinion, the biggest problems faced by Moldovan products on export markets are related to the image of the products, quality certification, lack of a branding strategy.

Another problem that agricultural producers face is competition in the domestic market of the Republic of Moldova where domestic agricultural products are constrained by imported ones.

The Republic of Moldova imports large quantities of vegetables, especially in the off-season, ie in the cold period of the year. This is determined by the high costs of growing in the greenhouse. Thus, during the cold period of the year, due to the lack of domestic agricultural products, Moldovan consumers have to consume imported agricultural products.

Losses in the agricultural sector in the Republic of Moldova are mostly caused by the lack of refrigerating spaces, the lack of new export channels, losses associated with the appropriate packaging of agricultural products, losses associated with the consolidation of agricultural areas (by enlargement of managed lands) - that results with a reduction of the number of landowners and farmers.

At the same time, in addition to the aspects of vegetable and animal agricultural production, a sensitive issue for the competitiveness of Moldova's agriculture is the organization and cooperation of stakeholders. In the Republic of Moldova, downstream operators of the agri-food value chain, including intermediaries, processors, exporters, food retailers and other actors, have not yet been able to establish long-term relationships with "raw material" suppliers, and to recognise farmers as key business partners. Actually, most of downstream market participants prefer to buy the harvested goods or animal meat directly from the agricultural market and pay farmers the lowest possible price, while retailers prefer to import large quantities of final agri-food products to satisfy domestic final-consumption of processed agri-food production.

Table 5. SWOT analysis of the potential of the agricultural and rural sectors of the Republic of Moldova.

<b>STRENGTHS</b>	<b>WEAKNESSES</b>
<ul style="list-style-type: none"> <li>• Great importance of the agricultural sector in the structure of the national economy;</li> <li>• Favourable geographical location for trade in agriculture, food industry and other manufacturing industries;</li> <li>• Existing land resources suitable for agricultural production;</li> <li>• Developed network of public Internet access, high level of Internet access;</li> <li>• The Republic of Moldova is located at the main crossroads of trade routes for fresh products;</li> <li>• Favourable conditions for the development of organic agriculture;</li> <li>• Tradition and experience in the production of wine, fruits and vegetables</li> </ul>	<ul style="list-style-type: none"> <li>• Weak promotion of investments and poor financing of the sector;</li> <li>• The dominant position of low-value crops in agricultural production;</li> <li>• Fragmented and inefficient livestock production;</li> <li>• Lack of horizontal and vertical coordination of supply chains, poorly structured producer organizations;</li> <li>• Difficulties in complying with safety and quality standards for agri-food products;</li> <li>• Agricultural education and agricultural research system are not adapted to the current situation;</li> <li>• Low productivity and fragmented dual structure of agricultural holdings;</li> <li>• Decrease in soil quality, erosion;</li> <li>• Poor condition of irrigation systems and small areas of irrigated land;</li> <li>• Poorly developed infrastructure and services in rural areas;</li> <li>• Decline in the level of employment in rural areas;</li> <li>• Weak participation of the local community in promoting rural development.</li> </ul>
<b>OPPORTUNITIES</b>	<b>THREATS</b>
<ul style="list-style-type: none"> <li>• Development of production and sales systems in the domestic and foreign markets;</li> <li>• Increased demand for organic products of exceptional quality in the domestic and foreign markets;</li> <li>• Increased need for food security in the world;</li> <li>• Development of cooperation between manufacturers;</li> <li>• Development of energy technologies based on biomass in rural areas;</li> <li>• Development of research, innovation, consulting and demonstration services with practical benefits;</li> <li>• Afforestation of abandoned lands and low-quality soils;</li> <li>• Strengthening international and territorial cooperation;</li> <li>• Public orientation towards alternative activities in rural areas;</li> <li>• Favourable environment for small and medium-sized businesses, as well as for family businesses.</li> </ul>	<ul style="list-style-type: none"> <li>• Increased competition in international and local markets and their instability;</li> <li>• unstable international economic situation;</li> <li>• Negative changes in the rural landscape;</li> <li>• Climate change, increased frequency of extreme weather events;</li> <li>• Immigration and "brain drain" from rural areas due to more favourable working and living conditions in cities and in the international labour market;</li> <li>• Increase in the number of socially vulnerable people and families;</li> <li>• Outbreaks of infectious diseases of plants and animals.</li> </ul>

Source: [12]

Therefore, these market failures have so far prevented the efficient transmission of market signals to the farm level and have delayed the integration of farmers into the vertical of a coordinated supply chains [12]. The poorly developed organizational structure of producers in the Republic of Moldova disadvantage farmers to access the market. Another weakness is the lack of supporting organizations for farmers (such as voluntary associations) aimed to improve their market access. Farmers in the Republic of Moldova, especially small producers, generally do not have the necessary “group power” able to integrate them into the market by increasing deliveries, setting better prices with buyers or jointly owning post-harvest facilities.

The lack of cooperation and organization of farmers in the Republic of Moldova continues to hinder their ability to integrate into supply chains and take full advantage of potential market opportunities. On the other hand, manufacturers have few resources to increase the value of their products (through storage, packaging, etc.). They have low bargaining power with buyers due to small volumes and variability of stocks, lack of suitable vehicles, etc.

While the processing industry can add value to agricultural products, this growth is hampered by the lack of private investment in the agri-food processing sector. Agricultural processing companies face severe constraints in many areas, including technology, equipment, finance, management, marketing, logistics, regulatory burden, and corruption. In addition, a competitive agri-food processing sector can transfer modern agricultural and information technologies directly or indirectly.

At the same time, climate and environmental change is also an important issue. Severe droughts occur every two to three years. It is very important to develop tools to mitigate the risks associated with weather conditions. Climate change could further reduce the amount of water available. Irrigation systems in rural areas often do not work. The lack of wastewater treatment processes leads to high levels of water pollution in these regions. Soil degradation is another major concern, with 50% of agricultural land classified as degraded. Unsustainable agricultural practices, inadequate water management and degradation of protective forests are important obstacles to the development of the sector. A small proportion of forest areas (about 12%) contributes to soil degradation and flooding. Land lease rules seem to perpetuate land degradation, as short-term land leases do not encourage their users to protect the environment, as they are primarily interested in maximizing land benefits in the short term.

The analysis of strengths, weaknesses, opportunities and threats (SWOT) presents the external factors (opportunities and threats) and internal (strengths and weaknesses) that characterize the current potential of the agricultural and rural sectors of the Republic of Moldova and indicate the weak areas (Table 5) [12].

### **Some strategic goals to provide competitiveness**

Competitive strategy implies the search for an advantageous competitive position in the industry where economic competition takes place. [34, p.15].

Starting from the vision of Igor Ansoff, who defines the strategy as a set of decision criteria that guide the behaviour of an economic agent to achieve the effectiveness of its activity [8, p.110], it is appropriate to promote **a set of goals focused to increase the competitiveness of the agricultural sector of the Republic of Moldova.**

**1. Diversification.** The diversification strategy means the launch of a new activity, different from the current activity of the company, that is, a new product sold in a new market, taking into account a new set of key factors, more or less successful, and exploiting (more or less successfully) elements of the synergy occurring in the main activity of the company [3, p.204].

The ways of diversification are [6, p.97]:

- **geographic diversification** - when a company leaves its market and enters another zone where the key success factors are different (especially networks and distribution rules may be different), leading, sometimes, the enterprise to change the vision about its activity;

- **vertical diversification** (integration of upstream and downstream) offers the company new strategic advantages, such as: reliability of supply (upstream), outflow (downstream), lower production and distribution costs, various opportunities (including different) with competition, etc. .;

- **horizontal diversification** (internal development through investments or external development through purchases or partnerships with other companies), based on synergy and complementarity, determines the company's approach to the main areas of activity.

**2. Development and modernization of agri-food chains** to comply with EU food safety and quality requirements.

First, it is necessary to stimulate the orientation of agricultural holdings towards the production of certain final products in the value chain. Depending on this, technologies, varieties and types of agricultural, vegetable or livestock products will be adapted.

Secondly, support is needed for the modernization and restructuring of farms specializing in the production of traditional agricultural products (fruits and vegetables, milk, meat), as well as other competitive agricultural products.

Third, agri-food companies must be supported by investment in modern technology to meet EU food quality and safety requirements.

Fourth, cooperation between primary agricultural producers and other representatives of the agricultural business (processors, wholesalers, retailers) should be strengthened in order to increase income opportunities and ensure access to Moldovan agri-food products in the national and international markets.

**3. Facilitating farmers' access to markets of capital, inputs and outputs.** Current investment support programs provide important tools for improving farmers' access to capital. In order to improve farmers' access to funds, some measures should be taken to:

- creation of an operational basis for transactions with secured goods (guarantee funds, certificates of deposit);
- stimulating the land market to turn the country into a more liquid and attractive asset for banks;
- reduction of agricultural risks through measures to reduce natural risks and insurance against them.

On the other hand, an open import regime for seeds, fertilizers and pesticides will give local producers greater access to modern technology and help them compete with European producers.

Similarly, farmers' access to product markets, which is especially problematic for small and medium-sized producers, can be improved by:

- a) supporting the integration of farmers into supply chains, that will facilitate their links with downstream operators, including processors, wholesalers and retailers;
- b) association of producers in order to enable and improve the access to post-harvest infrastructure and the facilitation of market access.

Currently, the Organization for the Development of the Small and Medium-sized Enterprises Sector (ODIMM) implements several programs aimed to training, facilitating of access to finance, setting up and developing small and medium-sized enterprises by migrants and women, and exchanging experience. For rural areas ODIMM has a special support program "Small and Medium Enterprises in Rural Areas", which is a continuation of 2 national entrepreneurship support programs: the program to attract remittances in the economy "PARE 1 + 1" and the Program "Women in business".

**4. Ensuring the sustainable management of natural resources in agriculture.** Even it has fertile soils and a favourable climate for agricultural production, the Republic of Moldova faces several environmental challenges. Therefore, adapting to climate challenges is a priority. This issue should include improving farmers' access to new drought-resistant varieties, non-destructive farming technologies, research and training in innovative water and soil management and access to climate information (especially on extreme events). Risk management tools in agriculture need to be evaluated and developed, including insurance against natural risks in agriculture and the application of hail systems.

The National Environmental Fund is currently supporting investments in water supply and sewerage infrastructure and network development. Also, the National Fund for Regional Development finances investments in the development of regional water supply, water treatment and sewerage systems, in the rehabilitation, expansion, modernization of water supply and sewerage infrastructure in the amount of 8 - 40 million Lei MD.

**5. Support green production technologies, green products, including biodiversity.** This strategy follows another way to ensure sustainable management of natural resources in agriculture by providing environmentally friendly production technologies and products. Regarding this, organic production should be supported, especially as the demand for such products in international markets is growing. Organic farmers should be assisted in their efforts to meet standards and implement procedures set by international markets and organizations.

In order to establish an exhaustive and uniform legal framework on granting subsidies in the agro-industrial sector and for rural development, the importance of supporting local agricultural producers and the need to adapt the legal regulatory framework in the field of agricultural subsidies to EU practices, the Parliament of Moldova adopted Law no. 276/2016 on the principles of subsidizing agricultural producers [7]. Taking into account the main areas of application of this law, it will be necessary to implement a number of adjustments to the monitoring and decision-making mechanisms in order to gradually align them with EU requirements.

**6. Development of physical and service infrastructure in rural areas.** Such public support is needed to improve physical infrastructure and rural services by investing in the renovation and reconstruction of water supply and sewerage systems, telecommunications lines, electricity and local roads, to facilitate the development of the agri-food sector.

Currently, the National Road Fund finances the maintenance and reconstruction of state and local public roads. Money for the maintenance and reconstruction of local public roads (including village streets) is transferred to the management of the local authorities of the second level. It should be noted that the limited capacity of the state budget of the Republic of Moldova does not allow the construction of new roads at the expense of the National Road Fund.

On the other hand, the National Regional Development Fund finances the rehabilitation and modernization of local roads, the connection of local settlements and roads to the national and international road network, as well as the construction / rehabilitation / modernization of ring roads with investments of 10-70 million Lei MD.

Likewise, the National Fund for Agriculture and Rural Environment is funding small local projects to build / rehabilitate local roads (streets) in rural villages and local roads that connect villages to surrounding village farms and agricultural processing enterprises.

#### **4. Conclusions**

Analysing the current situation in the agricultural sector of the Republic of Moldova, we can conclude that agriculture plays a very important role in the country's economy. The goal to increase the competitiveness of the agricultural sector will be possible to achieve being remove the restrictions on the development of the industry from the Republic of Moldova, which will be possible due to the use of modern equipment in the process of production, construction and post-harvest infrastructure; ensuring irrigation conditions; conquering new markets, as well as diversifying production etc.

The marketing problem for Moldovan agricultural products is very tight, because the local market is very small, so it is necessary to diversify the market in order to create as many opportunities as possible for Moldovan companies in favour of a scale and competitive economy.

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