

Agricultural sector of the Republic of Kazakhstan in the context of Sustainable Development: Analysis of the General Condition and Income Differentiation

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Abstract: The article is devoted to the agricultural sector of present Kazakhstan in the context of sustainable development, as it considered as a significant part of the economic system. Agriculture has determinative character in the economic development of the country. These days, the share of the population, who is working in agriculture is declining as countries develop. The core aim of this research is to show a comprehensive representation of the situation of agriculture in Kazakhstan, with a particular focus on income differentiation and labor force developments in the agriculture sector. To achieve the goal of research work, a descriptive method was used. The article reveals that due to low labor productivity and a large gap between income, there is income differentiation in the agriculture sector of Kazakhstan. The achieved results from this article can be used for evaluating the efficiency of various social policy tools both at the regional and national levels.


1 INTRODUCTION


One of the vital parts of the country is agricultural sector, as it participates in making the economic security, as well as the country's food encouraging, but also it forms the labor and settlement potential of rural areas. For many developing countries, the agricultural sector is a driver of economic growth.


In the Kazakhstani and overseas literature, there are several research works devoted to the study of unevenness and differentiation of income. However, the issue of the income differentiation in the agricultural sector raised the attention of the authors. Because since the beginning 90th, the improvement of the agro-industry and ensuring the economic security and the nation's food encouraging in the direction of "go green" and sustainable development is the most significant strategic farm duties of the RK. The literature research proved, that the works in the analysis of income differentiation especially in the agricultural sector and the clarifying of reasons

affecting its condition and dynamics are lack. The main purpose of our research paper is to define answers to these issues.

The authors like S Kuznets, N Kaldor, A. Sen, E Atkinson and others considered the issues inequality and income differentiation and based the foundations for measuring them (Malkina, 2015). Income differentiation is an important macroeconomic category that shows the result of sustainable economic development of the country, as well as the results of social state policy. For evaluating income differentiation widely used the Gini coefficient of variation, A Theil and E Atkinson indices. Moreover, the construction of Lorentz curves shows the dynamic in income differentiation. This article uses the Gini coefficient, as it provided by the Ministry of National Economy of Kazakhstan.

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2 MATERIALS AND METHODS

The research directed to analyze the situation of agriculture in Kazakhstan from 2017 to 2019, with a focus on agricultural income and labor force development. Statistics were taken from the Ministry of National Economy of the Republic of Kazakhstan. This part introduces with a study of the significant indicators, which belong to agricultural sector like the growth dynamic, employment in this sphere and the differentiation of incomes of the employees was carried out. To achieve this research purpose authors used descriptive research method

The important roles of agriculture in the country's economic development are as follows (Kondybayeva, 2018):

- As it mentioned previously, the agricultural sector has an important strategic role, as it participates in the economic growth direction of the country.
- In practice of developed countries, the agricultural sector has already made a significant contribution to the country's economic prosperity.
- The agricultural sector has a vital importance for the Third World Countries.

In recent years, the growth rate of global agricultural production and productivity has slowed. Currently, many countries around the world have high levels of food consumption per person, but growth will be limited over time due to lack of adequate resources. But at the same time, a high proportion of the world and developing countries remain in absolute poverty. This means that there is not enough income to convert their needs into sufficient demand. And development in the agrarian sector has an important role in developing the economy, as it caused the increase in the profits of the poor by creating jobs on farms and stimulating employment outside agriculture.

According to S Kuznets, at the early stages of industrialization, the income inequality rises, since a small part of the workforce is employed in the industrial sector. However, as workers continue to migrate to higher-wage sectors of the national economy, these high levels of inequality eventually decline over time (Kuznets, 1955).

According to the definition of the economist D Ray, economic inequality is “a fundamental imbalance in which one person can freely make certain material decisions, while the other is denied the opportunity to make exactly the same economic choice” (Ray, 1998). The causes of disproportion phenomena may include income inequality, a

consequence of accumulated a person wealth inequality, situations in society and opportunities in country, etc. The great researchers E Atkinson and F Bourguignon pointed out the material and non-material components of economic inequality. According to their works, the objects of material inequality consist of income, consumer spending and accumulated wealth. Nevertheless, the researchers considered the existing difference and defined: income and expenses are economic, and accumulated wealth is reserves (Atkinson, 2015).

Thus, the differentiation of incomes of the population is one of the most important and determinative socio-economic categories that characterize the level of uneven distribution of material wealth between the individuals of the country. Depending on the prevailing production relations, the principle of distribution of the quantity and share of the social product between groups and strata of the population will be determined. In capitalist society, income differentiation and inequality is determined by the relationship between the exploitation of goods and class inequality. Since representatives of different classes of society have a different type of income, accordingly, the differentiation of incomes shows the dynamics of the share of working people in the share of capitalists in social wealth in accordance with the general laws of capitalist accumulation.

In a market economy, income is also the main category that reflects the social status of an individual. In this regard, in order to maintain the long-term sustainable development of the economy, the state needs to regulate the distribution of income in the correct way so that status advantages are effectively reflected.

A state with rational income differentiation, due to the large number of the middle class and intensive social mobility in society, has the greatest sustainability of economic development, and also provides a strong incentive for social advancement and professional growth of the population (Bobkov, 2005).

In this way, income differentiation of the population is the result of the distribution of incomes of the population of the state, which describes the uneven level of distribution of public goods of society and the difference in the level of income of different segments of the population. In society, income differentiation arises and is formed in connection with various types of activities, various industries, as well as under the influence of demographic, social and political factors.

3 RESULTS

The changes in volume of the gross output of the agrarian sector of Kazakhstan for time period from 2017 to 2019 inclusive is considered and analyzed in this section of paper.

For this, we will use the diagram below (Figure 1), which clearly shows the dynamics of these indicators for the analyzed time period. Statistical data was taken from the reports of the Ministry of National Economy of the Republic of Kazakhstan

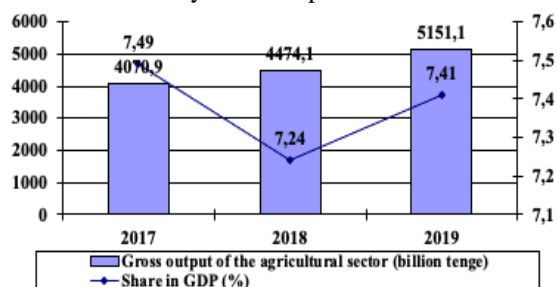


Figure 1: Dynamics of gross output of the agricultural sector of Kazakhstan (billion tenge) in 2017-2019.

As you can see from the above diagram for the analyzed time period, the following changes and transformations took place in the changes in volume of the gross output of the sector of agriculture in Kazakhstan:

- the total gross output of the sector of agriculture in the Republic of Kazakhstan increased by 26.5% or 1080.2 billion tenge. In 2017 this indicator was 4070.9 billion tenge and it increased to 5151.1 billion tenge at the end of 2019, respectively;
- at the same time, the share of the total gross output of the sector of agriculture in the GDP of Kazakhstan remained virtually unchanged, decreasing from 7.49% in 2017 to 7.41% at the end of 2019. A positive factor is the growth of this indicator by the end of 2019 compared to 2018 by 0.17 percent, from 7.24% to 7.41%.

In general, the agricultural sector of Kazakhstan determines an important role in economical balance of Kazakhstan in key areas of development and it is developing at the same level of the mining, processing and heavy industries.

The volume of crop and livestock production in Kazakhstan has a stable growth and testifies to an increase in demand in the home market and also in foreign markets for products of the sector of agriculture in the state.

To identify the advancement and development of the crop production industry within the agrarian

sector of Kazakhstan, we will analyze the dynamics of the gross harvest of the major agrarian crops in Kazakhstan in 2017-2019. (Figure 2).

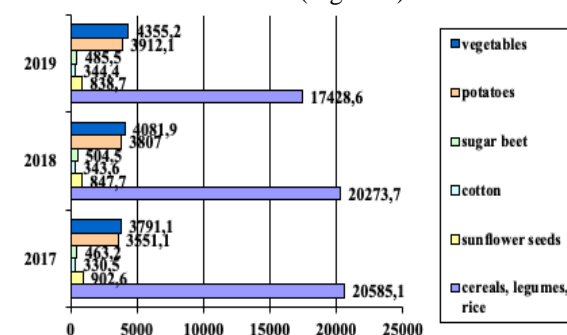


Figure 2: Gross harvest of major crops (thousand tons) in Kazakhstan in 2017-2019.

As a result, it is possible to identify that the crop production in agrarian sector of Kazakhstan, there is a redistribution in favor of products with a high level of added value - most crops (except for cereals) demonstrate stable growth within the framework of an increase in their gross harvest.

We will use the diagram below (Figure 3), which clearly analyze the dynamics of exports of products of the agrarian sector of Kazakhstan (million US dollars) from 2017 to 2019 inclusive.

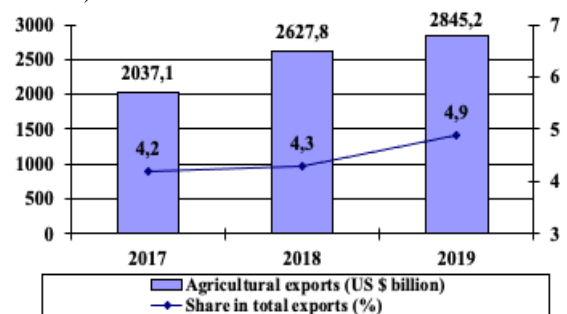


Figure 3: Dynamics of export of products of the agricultural sector of Kazakhstan (million US dollars) in 2017-2019.

As you can see from the above diagram for the analyzed time period, the following changes and transformations occurred in the dynamics of export volumes, products of the agrarian sector of Kazakhstan from 2017 to 2019 time period:

- the total volume of production of the agrarian sector of Kazakhstan increased by 39.7% or USD 808.1 million, from USD 2037.1 million to USD 2845.2 million at the end of 2019, respectively;
- in the total amount of exports of Kazakhstan, the overall level of total share of exports of agricultural sector products increased by 0.7

percentage points. In 2017 this indicator was 4.2% and increased to 4.9% at the end of 2019, respectively.

In the medium-term period of development of the national economy agrarian sector of Kazakhstan has a high degree of potential of this industry, which has a stable growth in the volume of exports of products of the agricultural sector and an increase of indicator of volumes of exports of products of the agrarian sector in the total volume of exports of Kazakhstan.

For the purpose of substantively disclose the export orientation of agricultural products of Kazakhstan to key markets, we will analyze the export of products of the agricultural sector of Kazakhstan for the time period from 2017 to 2019, we will use the diagram below (Figure 4).

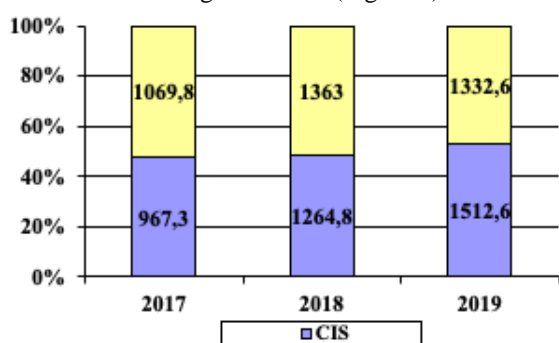


Figure 4: Structure of exports of products of the agricultural sector of Kazakhstan (million US dollars) in 2017-2019.

In accordance with the above diagram, it can be determined that in the structure of volumes, exports of products of the agrarian sector of Kazakhstan from 2017 to 2019 time period, the following changes and transformations took place:

- the amount of exports of products of the sector of agriculture in Kazakhstan to the CIS countries increased by 56.4% or 545.3 million US dollars. In 2017 this indicator was 967.3 million USD and at the end of 2019 increased to 1512.6 million USD;
- the amount of exports of products of the agriculture of Kazakhstan to other countries increased by 24.7%;
- the share of exports of products of the sector of agriculture in Kazakhstan to other countries decreased by 5.7 percentage points, from 52.5% in 2017 to 46.8% at the end of 2019, respectively.

In general, according to the research made it is possible to determine that at the current time there is a differentiated and systematic development process of the agriculture of Kazakhstan. And It is manifested in a stable growth in the volume of manufactured and

exported products of this sector of the national economy.

4 DISCUSSION

After studying the development and position of the agrarian sector of Kazakhstan, a descriptive analysis was carried out on inequality and income differentiation in this sector. The structure of employment, the volume of income and wages has a direct immediate effects and impact on the differentiation of incomes and the welfare and prosperity of the society and population, in addition to the development of the economy as a whole. Economic development, as well as income differentiation is always influenced by the structure of employment, income and wages level.

Income differentiation is an important macroeconomic category that shows the result of sustainable economic development of the country, as well as the results of social state policy. The wages of the population have an important and decisive influence in determining the differentiation of income, since wages are the main form of income for the majority of the population that works in hired labor and is part of the employed population.

Inter-sectoral and intra-sectoral differentiation of wages is a crucial and important factor in the differentiation of population by income.

Inter-sectoral differentiation in wages arises in connection with the intensive growth of wages in priority sectors and spheres that have great export demand and potential (fuel and energy complex) and the financial and economic sector, and on the other hand, due to stable wages in social spheres (like education, culture, health care) and agricultural sector.

Intra-industry differentiation of incomes unjustified differentiation of wages in each sector of the economy is also growing significantly.

The changes in volume of employment in agriculture in the Republic of Kazakhstan has a negative trend, as there is a small outflow of labor (Figure 5).



Figure 5: Employment in the agrarian sector.

As stated in the report of Ministry of National Economy of Kazakhstan, since 2009 there has been an outflow of labor by almost 2.2 times. In this sector, the average annual growth rate of employment decrease from 2009 to 2019 time period was 6.4%, which is a very high indicator compared to other sectors of the economy. According to statistics in 2019, employment in agriculture is 1.2 million people.

The peculiarity of the agrarian sector in Kazakhstan is that there is a large number of self-employed (64.6%).

The level of income in the agricultural sector is directly dependent on labor productivity. According to statistics, in 2019 labor productivity amounted to 2,077 thousand tenge. This indicator has an annual positive growth rate, but labor productivity in agrarian sector by way of comparison with other sectors of the economy is lower.

In the agrarian sector of Kazakhstan, there is a low level of wages (Figure 6). In agriculture, in 2019, the average monthly wage was 115,371 tenge, and compared to 2018 year the growth rate was 17.8%. This indicator for the time duration from 2017 to 2019 rised up by 1.3 times. Thus, the country's agricultural sector is the leader in terms of average annual wage growth rates and is 11.4%. However, the average monthly wage of population in the state is 186,815 tenge, but there is a gap, which is about 71 000 tenge, and it is 1.6 times more than salary in agricultural sector.

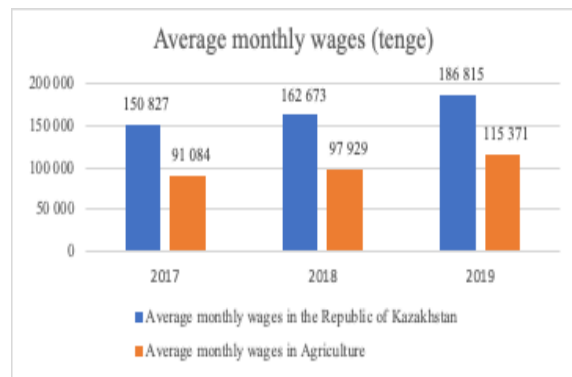


Figure 6: Average monthly wages (amount in tenge).

Social inequality, which is measured by income differentiation, depends not only on the industry and the development of the country, but there are also many social factors, such as the level of education in the studied industry. The agricultural sector of Kazakhstan and also of the countries around the world is defined by a less highly skilled labor force. Almost half of all employed in agriculture (47%) have only primary, basic, secondary general education. According to statistics, only 13% of employers has higher education in the sector of agriculture in Kazakhstan. The study revealed the socio-economic stratification of the regions of the Republic of Kazakhstan, as well as a large inequality in wages of the population by industry and spheres of the economy.

5 CONCLUSION

Our research can be concluded that the number of people employed in agriculture is decreasing every year. Such a negative tendency is observed not only in Kazakhstan, but also in every countries around the world. According to this fact, there is an uneven distribution, a large level of income gap compared with other sectors of the economy, as well as low labor productivity affects to the income differentiation of the population of Kazakhstan.

In general, according to the research made it is possible to determine that at the current time there is a differentiated and systematic development process of the agriculture of Kazakhstan. And It is manifested in a stable growth in the volume of manufactured and exported products of this section of the national economy.

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