

The Fifth Technological Order: Prospects for the Development and Modernization of the Russian Agro-Industrial Sector (TFTS 2019)

Human Capital as a Factor of Sustainable Development of Rural Areas of Kazakhstan

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Abstract— The authors studied the concept of "human capital" from the point of view of domestic and foreign authors. An authors' interpretation of this concept is proposed. Issues of sustainable development of rural areas of Kazakhstan are identified and prospects for its development are proposed, taking into account the improvement of socio-economic conditions. The main impact factors on the standard of living of population living in rural areas are determined. As a result of the study, the authors set the main tasks for further studying the human capital impact on the sustainable development of rural areas of Kazakhstan and developing a scientifically based organizational and economic mechanism for its development, taking into account practical results.

Keywords—human capital, socio-economic infrastructure, sustainable development, rural areas, standard of living.

I. INTRODUCTION

Currently, the global crisis has exposed the problems of the agricultural sector of Kazakhstan. In this regard, the primary tasks of the development of agricultural production require priority solutions, in particular the task of providing professional human resources, their use and pricing policy.

The current situation in rural areas is associated both with the devaluation of agricultural labor, the weakening of its motivation among the population, and also with a low standard of living. All these factors are barriers to the sustainable development of rural areas. The role of human capital and its development, as one of the main factors in the formation of sustainable development of rural territories, is relevant and requires careful study and development of a scientifically based organizational and economic mechanism.

Issues of productive employment, improving the quality and standard of living, development of transport and social infrastructures – all this is an objective picture of the current state of rural areas of Kazakhstan, which they are not able to solve by themselves without the timely and full state support [1].

The current paradigms of economic development in the world directly affect the change in the role of the individual, who is the subject and goal of production in society, as well as an important component of progress in society and the country's economy. The individual is an integral sign and basis of progress in any production process, as it carries invaluable knowledge and experience that allows it to regenerate, and also to add value due to its unique physiological and intellectual data [2]. Analyzing the experience in technology of developed countries, the movement towards a knowledge economy, first of all, includes the ability of a person to create innovative products and approaches, energy-saving technologies, which ultimately bring huge profits. Empirically, competition in the international economy is transformed into a competition of innovation, created by man himself. This trend about the role of man in progress is increasingly being strengthened in various government programs in most countries of the world, which prioritize the development of human capital, making investments and encouraging various incentives [3].

Thus, human capital becomes the basis for the sustainable and integrated development of any process in society and production.

II. LITERATURE REVIEW

A. Role of human capital in the development of rural settlements

After analyzing the concept of "human capital" in the works of various scientists and economists, we identified some of them (Table 1).

TABLE I. ANALYSIS OF INTERPRETATIONS OF THE "HUMAN CAPITAL" CONCEPT

Author	Concept
V. Schetinin [4]	This is a combination of natural abilities, acquired skills, knowledge, and skills in industrial activity, mobility, motivation and physical condition of a person.
G. Becker [5]	Human capital is a stock of skills, knowledge and motivation.
T. Schultz [6]	Congenital or acquired skills, supported by appropriate investments, called human capital.
A. Marshall [7]	A form of capital, as it is a source of both future earnings and future gratification, or both. The capital is human, because it is an integral part of a man.

Based on the foregoing, it can be concluded that the 2 following main factors affect progress of the human capital development: innate abilities and talents, as well as acquired skills and knowledge.

In the Presidential Speech to the people of Kazakhstan, "New Development Opportunities under the Fourth Industrial



Revolution", human capital is indicated in the seventh priority direction of the country's development [8].

Even during the existence of the Soviet Union, the Kazakh SSR was a republic that produced agricultural products. Agricultural land accounted for 200 million hectares, which accounted for 80% of the republic.

Kazakhstan is one of the largest producers and exporters of such products as cereals and flour, and the country is among the world leaders in sales of flour export.

The main goal of the long-term development of each individual country is to satisfy the needs and aspirations of society and people. It should be noted that one of the conditions for sustainable development is to achieve the satisfaction of the vital needs of each individual and society as a whole, as well as the practice of providing everyone with an equal opportunity to satisfy their motives for a higher standard of living.

As a result of research to date in Kazakhstan on the level of socio-economic development of 7093 rural settlements (RS), only 35% correspond to the high level, 63% to the average and 135 RS to the low development potentials and 27 RS to the population-less settlements (Figure 1).

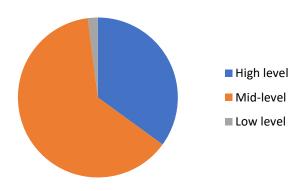


Fig. 1. Quantitative analysis of Kazakhstan's RS by the level of socio-economic development.

This assessment was carried out on the basis of 4 large groups of indicators, namely: provision with social facilities, environmental safety, level of development of engineering infrastructure and economic potential. A total of 21 indicators were estimated.

B. Analysis of impact factors of sustainable development of rural territories of Kazakhstan

In pursuit of the Millennium Development Goals, the country has committed itself to solving problems related to improving living conditions and increasing the well-being of citizens. The relevance and priority of this direction is confirmed by the adoption of strategically important state programs aimed at implementing measures to create adequate living conditions for villagers, taking into account the optimization of rural settlement and population concentration in territories that are favorable for livelihoods and economically feasible, while ensuring the prospects of rural areas through integration of programs rural development.

The current stage of development of rural areas is marked by the intensification of the process of increasing the level and quality of life of the population, the modernization of the socio-economic infrastructure of the RS, which provides rural residents in villages that meet modern standards of quality of

life. At present, there are more than 6.6 thousand RS in the republic, in which almost 8 million people live. Over the past 15 years, the number of villages in the country has decreased by 474 units. The reduction in the number of rural settlements became a prerequisite for their unification, the assignment of the status of villages with a population of over 10 thousand people, which in turn led to an increase in villages with high and medium development potential, with developed social and industrial infrastructure. According to the criterion for determining socio-economic development, 1314 correspond to the high development potential, 4795 to the medium and 460 to the low [9]. For the indicated period, the following dynamics was observed: the number of RS with a high development potential increased by 6% (from 14% to 20%), decreased with the average potential of 1% (74% to 73%) and the low by 5% (from 12% to 7%).

C. Analysis of the state program's efficiency for development of rural territories

The Government of the Republic of Kazakhstan has developed and is implementing a number of important socioeconomic programs in order to stimulate effective employment of the workforce and improve living standards in rural areas. Within the framework of the "Kazakhstan-2050 Strategy: the new political course of the established state", the "Employment Roadmap 2020" [10], the main task is to create new jobs, ensure the growth of incomes of the population by stimulating productive employment involving different sectors of the population, including self-employed, unemployed and low-income citizens of Kazakhstan, both urban and rural residents. One of the results of the implementation of this program is that the rural population, with incomes below the subsistence level, decreased by more than 7 times (from 34.2% in 2000 to 4.5% in 2018), and the population those with incomes below the food basket also decreased, more than 10 times (from 3.2% to 0.3%).

The program for the development of productive employment and mass entrepreneurship for 2017-2021 "Enbek" [11] has the goal of increasing rural employment in segments of small and medium-sized businesses.

The effectiveness of government policy in the field of agriculture directly affects the level of development of rural territories. The Government of Kazakhstan pays special attention to the sustainable development of the Kazakh village, the development and implementation of an adequate social policy strategy and the full development of rural infrastructure. An important priority is indicated in the special project "Auyl-El Besigi" recently developed by the state [12], the purpose of which is to re-equip both the social sphere and the economic infrastructure of rural areas, ensuring adequate livelihoods of the population in a rural village that meets the relevant standards of quality of life.

In addition, measures to develop rural infrastructure are carried out by line ministries and departments within the framework of existing state programs for the development of health care, education, energy, water supply, housing and communal services, etc.

The implementation of the development programs of the Kazakhstani village indicates that this process developed gradually as each of the projects considered was completed. At the same time, the choice of development areas for rural areas should be based on the needs of production and forecast resources, demand and infrastructure constraints, and



innovation. Only the unification of efforts of the state, local government, science, and business can bring rural areas onto the trajectory of sustainable socio-economic development. Under these conditions, the implementation of the above systemic measures to revitalize the village will form centers of economic growth and create favorable conditions for the livelihoods of the country's rural population.

But every year the rural population in the country becomes smaller and smaller, and all kinds of state programs in this direction are ineffective.

According to the state program "Agribusiness 2020", an annual increase in the volume of state support in all areas of the agricultural sector is planned [13].

At the same time, when adopting this program and its further implementation, it was argued that state support would grow from year to year and that its growth would not contradict the WTO rules. The proposed amount of state support under this program should increase by 1.3 times from 2013 to 2020 (from 259.7 billion in 2013, to 342.1 billion in 2020). If we take 5.8% for the base year of 2013 and the average annual inflation rate in the same year, then in terms of constant prices the volume of state support decreases by 20% compared to the level of 2013 [14].

The national management holding "KazAgro", created in 2006 with the goal of implementing a national strategy to stimulate the development of the agricultural sector of Kazakhstan and combining monopoly state joint-stock companies of agriculture, is unprofitable from year to year, despite constant government support in large volumes [15].

At the beginning of spring of this year, the urban population amounted to 58.2% of the total number (10.721 million people), and the rural population -41.8% (7.710 million people) [16].

Currently, there is a trend in increasing imbalances in the standards of living in the city and in the countryside; there are significant differences in income by region. For example, according to official statistics, about 42% of the total population of Kazakhstan lives in rural areas, of which one third lives on incomes below the subsistence level.

The current situation leads to an increase in the differentiation of the country's inhabitants in terms of living standards, negatively affecting the socio-political situation in society and negatively affecting the country's indicators of human capital development and investment image.

According to some experts, during certain communications, the introduction of modern technologies, the population can begin the return migration from city to village.

It is necessary to develop programs that will contribute to increased productivity and competitiveness. It is necessary to strengthen technology transfer in agriculture with European countries.

For the arrival of new technologies in villages to become effective, it is necessary to improve the skills of the rural population, which currently does not meet modern challenges [17]

Here, special emphasis should be given to agricultural universities and colleges of the country, which are the basis for creating the necessary personnel and agricultural production personnel in the regions, assuming a strategic role

in shaping modern and innovative approaches in the agricultural sector as a whole, thereby increasing its competitiveness.

Every year there is an increase in the number of educational grants allocated for agricultural sciences and veterinary medicine (2015 – 1371; 2019 – 2435 grants).

As you know, Kazakhstan proposed compulsory mining in rural areas by graduates of agricultural universities. The relevant amendments on regulation of the agro-industrial complex were approved by the Mazhilis of the Parliament of the Republic of Kazakhstan at a plenary meeting in the first reading in March of the current year.

However, there is another problem: low interest in highquality agricultural education on the part of students.

The main reasons for this are the uncompetitive level of wages in comparison with other industries, undeveloped infrastructure in the countryside, as well as unclear career prospects, high physical activity and difficult working conditions.

As you know, the problem of unemployment and lack of prospects in rural areas is the main reason for the outflow of rural youth to cities. The implementation of the Zhasyl El program in the village will help, in our opinion, solve some of the problematic issues of rural youth and contribute to the development of the village.

The development of agriculture and rural areas is also associated with the activities of the school, whose effectiveness significantly affects the provision of the agricultural and agrarian sector with labor resources. The main characteristics of rural schools: geographical isolation and low population density.

Possibly, low indicators in villages are associated with limited opportunities for advanced training, geographical remoteness, and a lack of training materials. In addition, many rural schools have a shortage of teaching staff. Every year, young teachers are sent to the villages under the program "With a diploma to the village!" At the initiative of local executive bodies, targeted measures are being taken to support young professionals. But there is no constant feedback, many young promising specialists, having worked a couple of years, are leaving back to the city in search of new prospects.

Consequently, despite the fact that the level of human capital in rural areas is low, its growth potential is an unlimited resource, the rational use and effective management of which in the long term can affect the further development of the agricultural sector of the Republic of Kazakhstan, which will enable the country to freely compete in global agricultural markets.

III. RESEARCH METHODOLOGY

In the process of scientific research, methods of abstract technology, comparative, correlation, factor analysis, expert estimates, monographic methods were used.

In order to achieve an adequate level of human capital in agriculture, in our opinion, it is necessary to carry out measures to develop and implement systemic measures covering all its constituent elements: educational, cultural, moral, social, economic, etc.



IV. RESULTS

The main results of the study are as follows:

- the concept of "human capital" has been studied from the point of view of domestic and foreign authors;
- the authors' interpretation of the concept of "human capital" is proposed;
- the authors identified issues of sustainable development of rural areas of Kazakhstan and proposed prospects, taking into account the improvement of socio-economic conditions;
- they identified the main impact factors of the standard of living of the rural areas' population;
- the authors analyzed the state programs of supporting and developing rural areas in the Republic of Kazakhstan.

V. CONCLUSION

The primary tasks of the development of agricultural production require priority decisions, in particular the task of providing professional human resources, their use and pricing policy.

Analyzing the experience in technology of developed countries, the movement towards a knowledge economy, first of all, includes the ability of a person to create innovative products and approaches, energy-saving technologies, which ultimately bring huge profits. Empirically, competition in the international economy is transformed into a competition of innovation, created by man himself.

Human capital becomes the basis for the sustainable and integrated development of any process in society and production.

Two main impact factors influence the progress in the human capital development: innate abilities and talents, as well as acquired skills and knowledge.

The current stage of development of rural territories is marked by the intensification of the process of increasing the level and quality of life of the population, the modernization of the socio-economic infrastructure of the village, which provides rural residents in villages that meet modern standards of quality of life.

The effectiveness of government policy in the field of agriculture directly affects the level of development of rural territories.

Every year, rural residents in the country become smaller and smaller, and all kinds of state programs in this direction are ineffective.

Currently, there is a trend in increasing imbalances in the living standards of the population in the city and in the countryside; there are significant differences in income by region.

However, there is another problem - low interest in highquality agricultural education on the part of students.

The main reasons for this are the uncompetitive level of wages in comparison with other industries, undeveloped infrastructure in the countryside, as well as unclear career prospects, high physical activity and difficult working conditions.

Only the unification of efforts of the state, local government, science, and business can bring rural areas onto the trajectory of sustainable socio-economic development.

The growth potential of human capital is an unlimited resource, its rational use and effective management in the long term can affect the further development of the agro-industrial complex of the Republic of Kazakhstan.

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