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THE ROLE OF HUMAN CAPITAL IN PROVIDING SMART GROWTH IN AGRICULTURE

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РОЛЬ ЛЮДСЬКОГО КАПІТАЛУ В ЗАБЕЗПЕЧЕННІ «SMART» ЗРОСТАННЯ В СІЛЬСЬКОМУ ГОСПОДАРСТВІ

Problem definition. Agriculture is a basic sector of the national economics that demonstrates its growth even under the economic crisis. Agriculture is currently of significant social importance since more than 3091.4 thousand people are involved in agricultural production. According to the results of 2014, the share of agriculture was 11.8% of the total gross added value of all economic sectors, and the volume of its products in all categories of enterprises, at current prices, amounted to UAH 370.8 billion.

However, having defined the agricultural sector as a "locomotive" of the national economy growth, the value of human resource, along with its knowledge, experience, skills and intelligence, is completely neglected that deepens the current problems of domestic agriculture, causes reduce in agricultural development potential based on economic sustainability, securing structural imbalance, monoproductive export orientation, environmental unjustification of agricultural activity, imbalance of life in rural areas. [1].

According to the World Bank estimations, the share of human capital in the structure of the world national wealth in the early 20th century exceeded 66% and in the EU countries it is over 75%, which exceeds half the accumulated national wealth in the world ($365 trillion) [2]. The role of the process of reproduction of this category has been growing, in Ukraine, particularly, the share of human capital in the structure of national wealth occupies over 47% [3]. This indicates that sustainable agricultural development is impossible without high-quality human capital. To ensure the proper smart growth in the agriculture worldwide, considerable attention is paid to development of mechanisms for qualitative renewal of productive human capital in rural areas, through raising their educational level and practical skills improving. That is, the relationship of economic growth and human development has always been one of the key issues of scientific research.

Analysis of recent researches and publications has shown that modern science pays much attention to the problems of labor, human resources, labor, human capital, as well as to their development and reproduction: a lot of books and articles have been written on the issues. In particular, a significant contribution to the development of human capital theory and its role in economic progress was made by the leading foreign economists like G. Becker, T. Schulz, E. Denison, K. Marx, U. Petti etc. Among the national researchers O. Borodina, Yu. Bazhal, V. Heiets, O.A. Grishnova, V. Demianenko, M. Dolishnii, L. Mykhailova and others should be mentioned. Yet, the topicality of this issue is not understated, since new circumstances of civilization development, specifics of «agricultural sustainability and smart growth» make us consider the system of human resources from a new point of view, identify new trends transferring into the regularities of its development.

The current stage of economic development is related to a new view of labor as one of the key resources of the economics. The increasing role of the human factor under the conditions of the declared modernization is particularly important as the production results depend on the quality, motivation and the character of the workforce as a whole and on the individual employee in particular.

The aim of the our research is to identify the role of human capital and current trends in its creation system in achieving economic progress of the national agricultural field using smart agricultural growth which is based on knowledge and innovation in.

The main results of the reseach. Our studies give reason to state that the basic priorities of efficient growth strategy in the majority of the developed countries are:

- Smart Growth - which involves developing an economy based on knowledge and innovation by encouraging people to learn, study and update their skills, to create new products and services generating the growth and to use information and communication technologies.

- Sustainable Growth – which promotes more efficient resource use, “green” and competitive economy, improving the business environment.

- Inclusive Growth which involves developing a high-employment economy delivering social and territorial unity [4].

Thus, it becomes apparent that sustainable economic growth in agricultural production is to be ensured through efficient use of all types of resources based on the introduction of innovations that enable

lower production costs and environmental impact on the environment as well as improving the competitiveness of domestic products. This growth must be accompanied with agriculture production balance, safe food consuming and social development of rural areas with human capital as a main development resource.

Accepting the importance of human capital in the production process is reflected in many models of economic growth which, along with investments and employment rate increase, consider the technological progress factor referring not only to the increasing mechanization of production, but to the increase in the employees efficiency, which depends on their health, education and training.

G. Menkyu, D. Romer and D. Whaley, while distinguish among physical and human capital in their papers, concluded that the share of physical capital in income is 1/3, and human one ranges from 1/3 to 1/2 [6].

R. Lucas considers the human capital stock and its efficiency in his model of economic growth. The scientist included the share of labor costs to create human capital, human capital stock and the average level of human capital in the economy in the interpretation of the production function [7]. Under dynamic equilibrium at a constant physical and human capital growth rate and in the absence of external effects, the production growth rate is completely determined by the growth of human capital. This model solves the problem of differences interpretation of growth parameters for different countries and explains the growing gap between rich and poor countries.

R.Lukas and those who follow his idea have put forward the hypothesis, according to which the most important part in the accumulation of human capital is learning by practice [7]. Under this assumption, human capital increases mainly in the course of work of a certain area. The more products are manufactured, the higher is the workers experience and the more discoveries and inventions are there. If a country has a comparative advantage in a more up-to-date production, it will further develop this advantage due to specialists practical training. This allows to explain, to some extent, low growth rates in developing countries where the low production level makes it impossible to develop technology and to improve the staff qualifications.

E. Denison in his studies compared the factors, comprising more than twenty variables, which determine the rate of economic growth in the US and in eight countries in Western Europe during 1929-1970. Four of the factors were related to work (employment, work hours, age and sex structure, educational level), four others were related to capital (housing, international assets, non-residential buildings, facilities and equipment inventory), factors like the earth and scientific progress were considered too. The share of education factor in the growth of national income amounted, as estimated by E. Denison, for the US - 15%, Russia - 14%, the Netherlands - 5%, UK - 12%, Italy and Norway - 7%, France - 6% and Denmark - 4% [8].

According to the calculations by Meddison, in 1973 – 1984 the education factor in the US economic growth was 23.4%, Great Britain - 30.2%, Japan - 11.3%, France - 27.5% [9].

The significance of human capital in proved by the experience of some foreign countries like Japan, Taiwan and some Asian countries, which, in the absence of natural resources, have made significant progress in the development, based on educated and disciplined labor force. The gross domestic product of these countries has increased by about 4 times over the past 25 years of the 20th century. [9].

In this regard, at the beginning of the century, the problem of economic growth in economic theory has acquired other shades, particularly care for future generations. The interpretation of «Smart agricultural growth» is spread among the leading foreign economists, and even under the ambiguous translation the term indicates that the growth is based on knowledge. "Smart" growth includes redirection of the growth to the inner area in which much less natural resources are consumed that helps to achieve more ambitious development goals. This growth provides a wider choice and personal freedom, efficient return on public investment, more opportunities for communities. Smart growth improves life quality for everyone, and the source of its development is education, when there are conditions for its implementation. Growth, if based on knowledge and innovation, motivates people to learn more to improve their skills, to create new products and services generating growth and jobs, to use information and communication technologies.

Even the best human capital does not ensure economic growth without efficient labor market. Humans must be able to implement their knowledge and skills into the production of goods and services, being self-employed or selling their workforce.

The problem of economic growth sources is particularly relevant for the modern agricultural production in Ukraine, where positive dynamics of key indicators is observed after long decline.

However, this economic growth can not be regarded as self-sufficient, as well as economic growth can not be regarded as sustainable and durable, since it is largely ensured by large agricultural enterprises, i.e. agricultural holdings and favorable conditions of world commodity markets, though the most advantageous in terms of strategic objectives of investment in modern technology, innovation, science, education, are next to unrealized.

The efficiency of agriculture and food industry is getting less determined with tangible assets - size of estates and industrial buildings, machinery, equipment; "intangible assets" - ideas, spirit of enterprise and staff creativity, strategic and intellectual association of the partners etc. tend to generate companies value more and more often.

Under the rapid development of complex technology and mass computerization a competent employee plays a leading role in production and thus, entirely new demands which require that the staff creativity should determine the vector of economic development of both separate territories and industry are set up daily to the stuff.

However, the analysis of the human capital of the agricultural sector of Ukraine suggests its gradual degradation due to unfavorable socio-demographic and economic conditions in rural areas. According to the State Statistics Committee of Ukraine, death rate exceeds the birth rate in rural areas, reducing the rural population in 2014 was 75,866 people, while in 1990 it was 52,800 people, with the decrease in 2000 - 2014 in the number of rural areas by 342 units.

The largest rates of natural decrease in population are revealed in Chernihiv, Sumy, Poltava, Cherkasy, Lugansk, Donetsk and Kirovograd regions where the rates ranged from 10.9% to 20.2%. The average rate of rural residents mortality in the last five years was 18.14%.

The deterioration of the social situation in the countryside is caused, specifically, by the poor quality of health services, lack of health care facilities and medicines to provide primary care. Health facilities manning is lower than that of regulative and, according to the Ministry of Health, is 76.6% and the primary care physician workload in rural areas sometimes reaches 5-6 thousand people [10].

The quality deterioration of the accumulated human capital is conditioned by the fact that a significant part of people in the economically active age can not find the way to apply fully their abilities, qualifications and experience remain unclaimed in corporate and thus can not generate income. As agricultural holdings expand, the tendency of staff reduce grows, unemployment and migrant workers number increases, villages depopulation increases [3].

According to the State Placement Service, by the end of 2014 the workload per working place in agriculture amounted to 26 people. In addition, the wages in agricultural production remain the lowest, which results in increased degradation processes in individual human capital accumulation.

According to the State Statistics Committee, the annual payroll accrued for tenured employees in agriculture in 2014 totaled $13.6 billion or 3.6% of the staff fund accrued in the national economy. Average monthly nominal salary of one full-time employee in agricultural enterprises remained the lowest among all economic activities and made UAH 2,476. By January 1, 2015 arrears on agricultural workers wages grew by 45.1% and amounted to UAH 18.7 mln.

In addition to the abovementioned problems in agriculture, unsatisfactory living conditions in the countryside should be mentioned. Thus, only 33.4% of total rural dwelling is equipped with water supply, sewerage is available in 29.9% of houses, hot water - in 21%, individual heating – in 52%, centralized gas supply - in 56.5% of the rural houses, hostels and non-residential buildings [11].

The national program "Own House" which aims to provide housing for education, culture, health and budget agriculture institutions workers living in rural areas are funded poorly. In low-income environment the rural population is unable to invest their money into housing, there is no motivation for young people to build their own dwelling in rural areas. Lack of preferential lending, limited financial support for the houses construction in rural areas are deterrents of human capital development.

Agriculture field ranks among the last in education. According to the official data of State Statistics Committee of Ukraine, the number of pre-school education establishments in rural areas decreased from 12.6 thousand in 1990 to 9.3 thousand in 2014. Moreover, the coverage of preschool children with education institutions in rural areas in 2014 amounted to 41%.

Taking into account that human capital involves natural abilities and talents, as well as acquired education, professional knowledge, qualifications and skills, we believe that providing the rural population needs for obtaining high-quality pre-school and higher education demands prompt solving the problem of preschools and secondary schools network in rural areas modernization. Thus, it is necessary to address legislatively the issue of rural schools support by large agricultural holdings leasing the land in the area.

Agricultural higher education requires special state approach. Nowadays, the right to train highly qualified specialists for agricultural sector should be acquired only by schools possessing a sufficient base to train students in a production environment. These are to be modern educational and research centers applying the latest technologies in crop and livestock production, and the students trained in all areas are to be able to see and learn all the processes. Bila Tserkva national agrarian university is an example of the educational research center.

The state should support such centers as they can become a ground not only for training future professionals, but for post graduates training as well. These universities could become real regional consulting centers. Advisory centers established at district offices of agriculture development have not proven to be worthy though a lot of money was spent on them. Educational institutions accumulate the most powerful intellectual potential of the nation. It is under relevant state support that these institutions can retrain specialists, consult on starting small-scale business, make business plans and substantiate ways of agriculture production diversifications.

Besides, rather perspective seems cooperation between business and state, in which large agricultural enterprises would invest into specialists training and would give young agriculture specialists an

opportunity to adopt practical experience in organization and doing agrarian business in the leading European countries after graduation.

Higher education has to train the specialists able to think strategically, estimate situation from the aspect of future. Significant efforts should be aimed at retraining the present specialists since not every person is capable to do this. Special efforts are required to overcome several obstacles of which three are particularly difficult: 1) obstacle of indifference to anything new, unknown and unexpected; 2) obstacle of ingrained habits of gained, known without reference books and instructions; 3) obstacle of inners resistance to changes. In our opinion, it would be the reasonable to introduce an "efficient farm management" program, aimed at improving the efficiency of farm managers in the form of two- or thee week training involving discussions, where students would be able to not only improve their professional knowledge in control and farm management, but to share their own experiences as well.

That is, we offer an optimal form of training managers focused on achieving the strategic goal of sustainable agricultural production.

Research conclusions. The national agricultural sector needs badly an effective transition to growth, reaching and sustainability of which should be based on knowledge and innovation (Smart growth), inclusive growth and green growth.

The social component of economic development in the agricultural sector is, in fact, neglected by public policy.

We consider the accumulation and level of development as well as using human resources to be the main driving force and a crucial condition for economic growth and competitiveness of the country. To convert agricultural human capital into the country's strategic resource we need investments at several levels, namely at the family level, at specific production structure and state levels.

It is only due to generations of educated professionals for sustainable development that society will have guarantee of more significant balancing of economic growth, reasonable and sustainable use of the environment for present and future generations.

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