

SCIENTIFIC-PRACTICAL PROBLEMS OF DEVELOPMENT RURAL AREAS AGRARIAN SECTOR AS ECOSYSTEM KNOWLEDGE ECONOMY

Науково-практичні проблеми розвитку сільських територій аграрної сфери як екосистеми економіки знань

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Abstract: In the article the essence and content of the concept "rural areas". Investigated the current state and problems of development of rural areas, identifies the main factors: economic, social and environmental that prevent their development, and the prospects of their development.

KEYWORDS: RURAL TERRITORIES, DEVELOPMENT, AGRARIAN SECTOR, KNOWLEDGE ECONOMY, ECOSYSTEM.

1. Introduction

Today in the developed world are formed and develop models of the information society. Economically developed countries have recognized the priority of development of science and education as the guarantor of the progressive movement in the future, building a competitive economy, to meet the constantly growing needs of the people. So there is a smooth transition to a new level of understanding of reality that is characterized by the formation of "knowledge economy". Ukraine is also moving in that direction.

Since Ukraine is an agro-industrial state, the development of rural areas is one of the main priorities of the state policy of Ukraine aimed at improving the living standards of rural population, growth of efficiency of functioning of agricultural production, improve the environment and improve the quality of life of the rural population.

The state policy of development of rural areas aims to ensure the formation of favorable institutional, organizational and economic environment at national and regional levels, to encourage the establishment of effective mechanisms for attracting domestic and foreign investment into the country and to create comfortable conditions for living and work residents of the Ukrainian village.

In the socio-economic life of the country rural areas hold a special place. Are home to 31.1% of the population of our state and accounts for about 90% of its area. The importance of these territories is enhanced by their exceptional contribution in establishing food security and increasing export potential of the country. These and other levers make the development of rural areas one of the main priorities of the state policy of Ukraine aimed at improving the living standards of rural population, growth of efficiency of functioning of agricultural production, improve the environment and improve the quality of the human population. Improving the efficiency of agricultural production under condition of preservation of the environment, overcoming the economic and financial crisis and social revival of the village – the processes are organically related. Reform of the agricultural sector will have positive results in their social direction, improving living standards in rural areas.

For a long time Ukraine was considered to be a rural country, even now, despite our achievements in rocket and aircraft construction, agriculture is an important sector of the economy and the rural population remains a real reserve of the Ukrainian society. In Europe there is no country where agriculture is in the state's economy of more than 3.5 % of GDP. But in Ukraine, the agricultural sector generates about 11 % [11].

Using the methodology of systemic-structural approach allows us to consider the national economy as an economic system, i.e. as a set of subsystems and their elements, which is formed from separate relatively independent elements, the interaction between which determines the occurrence of the

common qualities and characteristics of a holistic organic unity, is not inherent in its individual elements. Consider the example of research on the sectoral structure of the national economy, which reflects the interaction of the main economic activities in the country (table. 1).

Table 1 The dynamics of the employed population on branches of economy of Ukraine, %

Indicators	2010	2011	2012	2013	2014
Industry	15,0	14,6	14,5	13,8	13,8
Agriculture	4,0	3,6	3,6	3,2	3,4
Information and telecommunications	1,3	1,4	1,5	1,5	1,6
Services	79,7	80,4	80,4	81,5	81,2
Services/manufacturing	4,2	4,4	4,4	4,8	4,7
Services/ agriculture	19,9	22,3	22,3	25,5	23,9
Services/ information	61,3	57,4	53,6	54,3	50,8
Agriculture / information	3,1	2,6	2,4	2,1	2,1

It is worth noting that the share of employed population in services and information between 2010 and 2014 each year increases, which indicates the dominance of the sphere of information products and services, i.e. information and knowledge become important factors that affect the competitiveness of the economy. The share of employment in agriculture of Ukraine on the average for 2010-2014 was 3.6 %. The share of employment in services in 2014 is 24 times higher than the share of employment in agriculture.

2. Status and problems of development of rural territories of Ukraine

Recently, the concept of "rural area" is widely used in the scientific literature, but also to determine the nature and content yet dominated by highly specialized approach, namely the "rural areas" is:

- economical-ecological category, regional-territorial unit with the specific climatic, socio-economic conditions where economically and environmentally balanced and energy are interrelated the various resources (natural, labour, material, energy, information, financial, etc.) to create the total social product of a particular territory and a full-fledged living environment for present and future generations [5];

- country area specific natural, economic, administrative-territorial parts of the country;

- the resource base for agriculture;
- two-component concept that reflects the characteristics of the empirical object, has a significant number of features with complex internal structure;

- the combination of production and economic, political, social, and natural components that are subject to local

governments, public authorities and the regulatory impact local communities, businesses and the public;

- the physical territory within which are the representatives of the flora, fauna and man as a biosocial creature;

- rural part of the territory, within the space [2].

The study of literature and own research allows to allocate the following factors influencing the development of rural territories of Ukraine: economic, social and environmental. Identified the key problems of development of rural territories of Ukraine, which is represented in Fig. 1

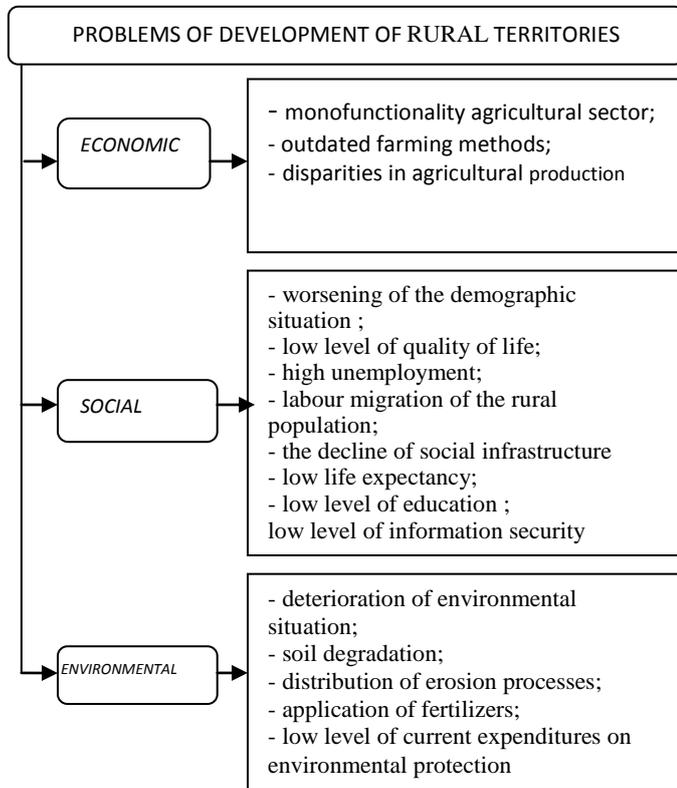


Fig. 1. Problems of development of rural territories of Ukraine (compiled by the author)

2.1. Economic aspects of the study of development of rural territories

The current state of development of rural territories of Ukraine reflect the macroeconomic indicators for 2010-2014 (table. 2).

Table 2
Main economic indicators of development of rural territories of Ukraine

Indicators	2010	2011	2012	2013	2014
Agricultural production, bln.	194,9	233,7	223,3	252,9	251,4
The GDP share of agriculture in total GDP, %	7,4	8,1	7,8	8,7	10,2
Agricultural GDP per capita, thousand UAH.	301,1	368,8	357,8	434,3	477,4
The index of selling prices of agricultural enterprises, % to the previous year	130,0	113,6	106,8	97,1	214,3
The rate of growth of production of agricultural products, % to the previous year	98,5	119,9	95,5	113,3	99,4

2.2. Social development of rural areas

Particularly acute today is the issue of social development of rural areas for social welfare of rural people depends on the further development of rural areas. For the analysis of the social component of the knowledge economy rural areas need to consider the following indicators: demographic, infrastructure, security, living standards, security of human and intellectual resources. The current state of social condition of the village is given in table. 3

Table 3 The main indicators of social development of rural territories of Ukraine

Indicators	2010	2011	2012	2013	2014
The share of rural population in total population, %	31,3	3,2	31,3	31,1	31,0
The life expectancy of the rural population	69,02	69,76	69,75	69,88	69,72
The number of preschool education institutions, thousand units	8,5	9,0	9,2	9,4	9,3
The enrolment of children in institutions (percent of number of children of appropriate age)	33	35	37	41	40
The unemployment rate of the working population in rural areas %	7,1	7,5	7,4	7,3	9,5
The gap between the money income of 20 % most and 20% least well-off population of rural areas, since	3,6	3,5	3,3	3,2	3,2
The share of rural population with monetary incomes below the subsistence minimum, %	26,5	24,4	24,2	21,4	20,2
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The presence of the housing stock in average per person living in rural area, m2	26,4	26,8	27,2	27,5	27,6
Average monthly nominal wages of agricultural workers, RS.	1472	1853	2086	2340	2556
The share of employed population in agriculture in total employment, %	4,0	3,6	3,6	3,2	3,4
The level of education of personnel, %	26,5	26,7	29,2	30,0	30,6

Having considered the indicators of social development of rural territories of Ukraine, it is worth noting that the rural population over the period 2010-2014 decreased by 2.5 %, the birth rate remains approximately at the same level, while the mortality rate greatly exceeds. Population decline is a consequence of the continuous outflow of economic active sectors of the rural population, which in turn caused weak development of rural areas.

In rural Ukraine there is a low security network of rural educational institutions. During 2010-2014 in the villages was the number of schools was reduced by 8% due to the reduction of school-age children in the village.

The deterioration of the situation in the village is also associated, in particular, low quality of health services and unequal access of different segments of the population. Acute problems are a shortage of medical facilities, trained medical personnel, low level of equipment of medical institutions, lack of ambulances and the quality of the roads.

A characteristic feature of Ukraine at the present stage is the growing poverty among the working population. On average, 23.3% of the farmers have incomes below the subsistence minimum. Also the ratio of incomes between the richest and the poorest peasants in the Ukraine is extremely high and an average of 3.4 times.

Negative trend of formation of labor potential of agriculture is a gradual reduction in the numbers employed in her youth. In 2010-2014, the number of employed in agricultural production has declined by 11.3 thousand persons, or 8.9%. The employment rate of young people in the region on average was 0.24.

Social infrastructure of the village is to satisfy the vital needs of a leading productive force of society – the person, and thereby contribute to the development of rural economy. The absence of important structural elements of the social sphere is the cause of a mass outflow of labor force from rural areas and decline of rural areas.

2.3. Environmental factors of development of rural territories

From the point of view of ecology, sustainable development of rural areas should ensure the integrity of biological and physical natural systems, their viability depends on the global stability of the biosphere. Of particular importance is the ability of such systems simultaneously and adapt to various changes, instead of storing in a static condition or degradation and loss of biological diversity.

In Ukraine in the agricultural turnover is about 80% of the arable land, whereas in countries with intensive development of agriculture is much lower (Germany: 67%, France 61%, United States – 43%, UK 35%). The high proportion of tilled soil is a negative phenomenon for our country, for two reasons: first, it promotes the loss of humus; second, the evidence predominantly extensive agriculture and low level of culture of agricultural production .

Brought ecologically valid ratio of the area of arable land, natural grassland, forest and water areas that adversely affect the sustainability of the agricultural landscape, causing the degradation of soil and is a real threat to economic security in the agricultural sector.

Evaluation of indicators of ecological safety of development of rural territories of Ukraine in 2010-2014 is shown in table. 4.

Table 4 Indices of ecological safety of rural territories of Ukraine

Figure	2010	2011	2012	2013	2014
The coefficient of ecological stability of land use, points	0,40	0,40	0,40	0,40	0,39
Coefficient of anthropogenic load	3,53	3,53	3,52	3,52	3,53
Coefficient of atmospheric pollution	8,10	8,20	8,70	8,00	7,70
Level the plowed farmland	0,78	0,78	0,78	0,78	0,78
The ratio of capital expenditures on environmental protection	0,64	0,51	0,57	0,24	0,35
The ratio of current expenditures on environmental protection	0,36	0,49	0,43	0,76	0,65
The ratio of costs for air protection	0,004	0,01	0,01	0,02	0,01
Number of employees industry agriculture, working in conditions not meeting sanitary-hygienic norms, thousand people	47,7	47,7	42,5	42,5	36,9
% to the account of payroll employees in the industry	8,3	8,3	8,7	8,7	8,7

Ukraine is the poorest of the water resources of Europe and is one of the regions with significant anthropogenic pressures on water sources and lack of sufficient fresh water. The coefficient of purity of the water used in agriculture is very low – 0,01. The coefficient of water use efficiency is also low, at 0,1, besides, tends to decrease. Under the influence of chemicals in agricultural production, land drainage, water resources are undergoing significant changes.

Now most countries are trying to reduce the negative environmental impacts of farming, translating agricultural production on organic principles of growing of crop production. Ukraine has also introduced organic farming.

3. Directions of improvement and development of rural territories of Ukraine

Also a significant problem of rural development of the agrarian sphere as ecosystems of knowledge economy is the lack of financial resources. However, even existing resources are not always effective and are not earmarked in the development of rural areas. To solve problems and improve the condition of rural areas requires the following actions Fig. 2.

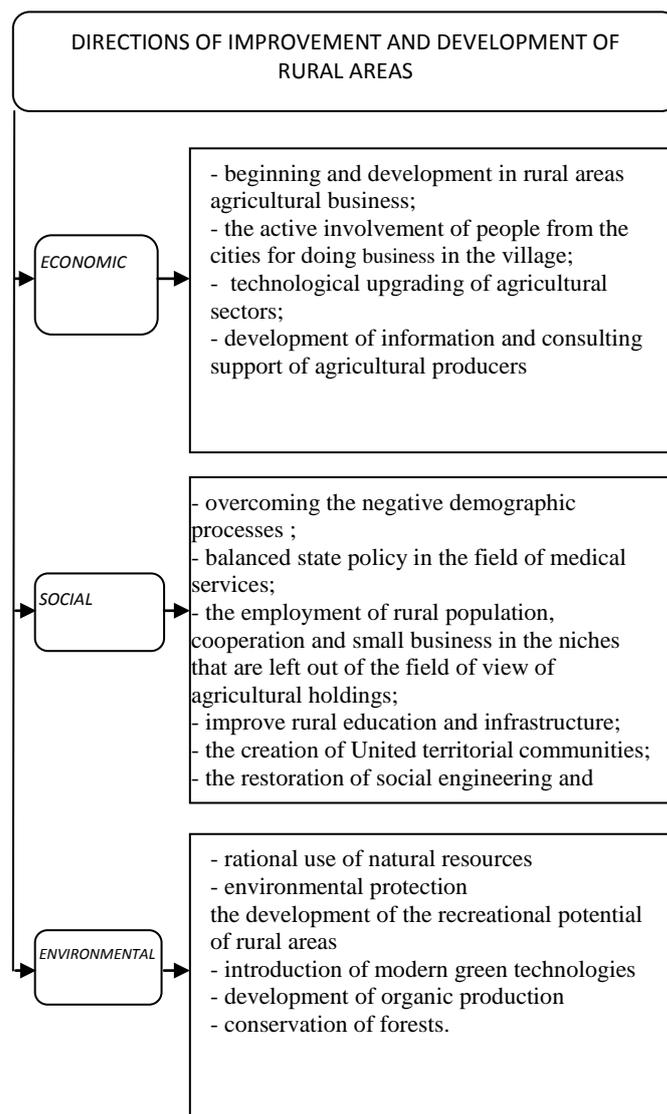


Fig. 2. Directions of improvement and development of rural territories of Ukraine (compiled by the author)

The above steps will help form a favorable climate and ensure the development of rural territories of Ukraine. For rural development, Ukraine should pay attention to the European counterparts, namely, interest (motivation) of employers in the transfer of production capacity of enterprises in rural and peripheral areas. The impetus for the development of the village is the construction of new and rehabilitation of existing roads. Should also work on implementation while promoting the development of rural areas of advanced models of self-organization and training for distribution business as it was

carried out during the reform of rural areas of the Nordic countries.

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