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### CHALLENGES OF SUSTAINABLE DEVELOPMENT OF RURAL ECONOMY

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Rural areas play an important role in the national economy, the environment and society, contribute to the preservation of cultural heritage and the sustainable income of peasants. The growth of production rates by large agroholdings, which is mainly specialized on the crop production, does not contribute to the development of rural areas. The purpose of the article is to develop measures to ensure the sustainable development of rural areas. In the article, based on the method of comparative analysis, various aspects of programs on sustainable development of rural areas have been researched; economic development of rural territories for 2010-2016 has been studied on the basis of sociological and statistical data. The results of this research include the development of mechanisms for implementation of the sustainable development policy of rural areas, including promising directions of local areas development and innovative solutions to environmental and social problems.

Key words: rural economy, rural development, sustainable development. JEL Codes: R11; P25; Q01.

#### 1. Introduction

Rural economy is a dynamic social and economic system, which undergoes constant changes under the influence of exo- and endogenous factors, which results in the achieved level of development. The set of trends characterizing this process is rather ambiguous. In parallel with the formation and the active use of the benefits of the market economy, the gradual transformation of agriculture into the investment-attractive industry, the expansion of the export potential of the national agrarian sector and the strengthening of Ukraine's position among the world's food export leaders, there is a rapid reduction of human capital in rural areas, provoked by natural depopulation processes, and stimulated by a slowdown in the growth of the welfare of the population. All this poses a threat to the sustainable development of the rural economy.

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Sustainability, as a worldview category, was introduced into the terminology of scientific research and strategic management under the influence of global challenges of human development. Sustainability as a concept has gained recognition through research of the Roman Club and the works of D. Meadows and the group of her likeminded people — "Limits to Growth" (Meadows, 1972) and "Beyond the Limits" (Meadows, 1994). In the concept of sustainable development the triad "social sphere — ecology — economy" acquires unique features — its purpose is to ensure the welfare of present and future generations on the basis of the natural-ecological life support system, in which the economy will play the role of an engine of the development (Shubravska, 2005). In other words, the sustainable development is provided on the condition of economic growth combined with social transformations accompanied by the solution of socially important issues. In modern perception, it concerns not only the issues of economic development and the environment preservation, but also has a social dimension — the degree of satisfaction of social needs of the communities, solution of the problems of social security and social policy (Borodina, 2012).

The most commonly used definition of sustainable development is due to Brundtland (World Commission on Environment and Development 1987), which states that it is about meeting the needs of the future generations without reducing the ability of the current generation to meet its own needs (Sarkar, 2018). Many economists like R. Solow (Solow, 1993) and P. Dasgupta (Dasgupta, 2001) have argued that it is neither important nor feasible to bequeath exactly the same items of capital to the next generation. A particular capital may get exhausted or no longer be available. A new type of capital can become a substitute for the unavailable one, such that the flow of services from the stock of capita remains unchanged. This is quite obvious in the case of physical resources like fossil fuels or mineral ores, which could be depleted over time. For instance, if a generation uses up all fossil fuels, but leaves behind an alternative technological solution to provide all the services rendered by the fossil fuels, then there is no substantive loss for the next generation in terms of what they could potentially do. There is no reason why any particular species or a particular tract of forest should be preserved if their extinction creates other kinds of capital such as better urban spaces, or factories that could lead to an overall improvement in social wealth. Improvements in social wealth are taken as indicators of greater human wellbeing, maximizing which is the objective of sustainable development.

In terms of the rural economy, the sustainability is of a particular importance due to the proximity of this system to the natural environment, on the one hand, and the criticality of the problems of social and economic development of rural areas — on the other hand. The current high rates of ecosystem damage and extinction can be slowed by efforts to protect the integrity of living systems (the biosphere), enhancing habitat and improving connectivity between ecosystems while maintaining the high agricultural productivity that humanity requires. While the production of agricultural goods increased 2.5—3 times over the last 50 years, the agricultural land area has only expanded by 12%. Because more than 40% of the increase in food production stems from irrigated areas, water use has also increased. Today, 70% of all water (Lewandowski, 2018)

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withdrawn from aquifers, streams and lakes is used for agricultural production, leading to water scarcity in many areas. Sustainability of the rural economy goes beyond the capacity of this system to maintain balanced economic growth that does not endanger the safety of the environment, as it envisages the achievement of convergence of the rural community, achievement of social stability, moral and ethical norms and cultural diversity, rural lifestyle in general, public consensus on the base of the involvement of all members of the village community in the decision-making process.

The aim of this research is to generalize the trends of social and economic changes in rural areas and to determine the main challenges of sustainable development of the rural economy.

The object of the research is the processes of the rural economy transformation under the influence of evolutionary transformations of the agrarian sector and the development of a new model of the local development management. The subject of the research is the dynamics of indicators of agricultural development, employment and welfare of rural population, demographic situation in rural areas.

### 2. Research methodology

The methodology of the research is based on a systematic approach, according to which the rural economy is considered as an open social and economic system, which ensures the transformation of the exogenous and endogenous potential of rural areas into the corresponding level of rural development, the welfare of the rural population. The argumentation of the conclusions drawn is based on the analytical indicators of social and economic development of rural areas of Ukraine for the period of 2010–2016, in some aspects of the research – for the period of 1990–2016. The annual reports and official data of the State Statistics Service of Ukraine, as well as articles and analytical materials in the field of rural development of other scholars became the sources of information. The research methodology was based on statistical methods that made it possible to systematize the information. The methodology used contributed to the solution of the task and the preconditions for overcoming the challenges of sustainable development of the rural economy in Ukraine.

### 3. Results

The development of the rural economy in Ukraine is largely formed under the influence of the formation of a bipolar-type agricultural model. In this model, there is a long and contradictory consequence of the period of the formation of large-scale agribusiness in the form of agroholding structures, on the one hand, and the preservation of private households as an important subject of agricultural production, a source of informal employment for the rural population, a kind of inhibitor of social tension caused by the disadvantages of agrarian reforms, on the other hand (Fig. 1).

The activity of the subjects of agricultural production has fundamental differences in the parameters of the motivation of starting and conducting. The main and, at the same time, the common cause of their existence in Ukraine was the fact that the establishment of an effective (family) type of farming in the agribusiness system did not take place.

Despite the advantages of commercial character, technological and managerial innovations, investment attractiveness, etc. (Gagalyuk, 2018), the activity of agroholdings in Ukraine is associated with a number of aspects that make preconditions for reputational risks and endanger the sustainable development of the rural economy. These include strengthening the concentration of agricultural land by large corporate agribusinesses (or "land grabbing"¹) and understated rent (Borodina, 2017); the discrepancy of the activities of agroholdings with the expectations of peasants in terms of their role in solving and internalization of existing social problems as part of the strategy of corporate social responsibility (Gagalyuk, 2016); non-compliance with the requirements for crop rotation and the domination of highly intensive crops (Moklyachuk, 2013); an unethical lobbying of business interests (Gagalyuk, 2017); reduction of agricultural employment and migration from rural areas (Borodina, 2016), etc.

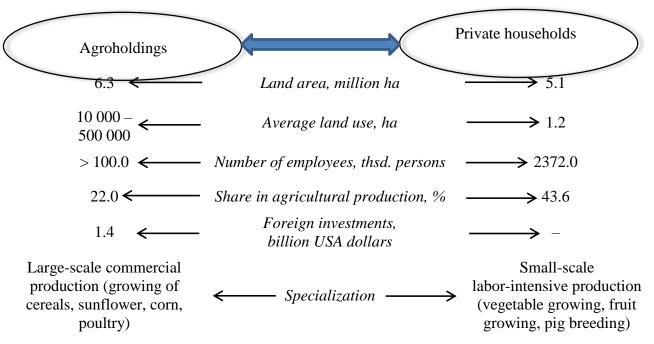


Fig. 1. Bipolarity of the agricultural model of Ukraine

Taking into consideration the sector-specific nature of the structure, the rural economy, besides the subjects of agricultural production, includes a number of other enterprises operating in the countryside and producing and selling goods and services to the local population, creating jobs and an appropriate employment structure (Fig. 2).

<sup>&</sup>lt;sup>1</sup> The term "*land grabbing*" is actively used in English-language scientific literature to identify the processes of redistribution of agricultural land under the influence of external factors and capital.

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The formed structure of rural employment does not allow proper use of the real labor potential of the rural economy —over 0.5 million people from 6.4 million people of the economically active population are registered as unemployed, and another 3 million people consider themselves as unemployed.

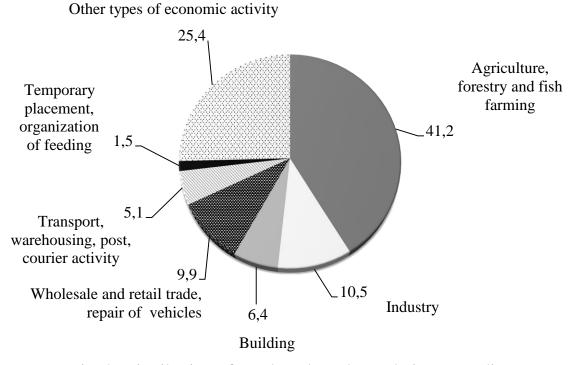


Fig. 2. Distribution of employed rural population according to the types of economic activity in 2016, %

In such circumstances, rural tourism could serve as a kind of "social shock absorber" in restructuring of the agrarian economic sector (Ramanauskiene, 2006). This kind of rural business can transfer the surplus of labor resources into an alternative sector of production services and create new jobs in rural areas. The main problems hampering its development in rural areas in Ukraine can be considered as: firstly, underestimation of the importance of local historical and cultural monuments as a tourist resource by local authorities and population; secondly, as the lack of organizational, psychological and other skills of the tourist business from the rural population; thirdly, as the lack of start-up capital and preferential lending mechanisms for potential entrepreneurs in the field of rural tourism; fourth, unfortunately, the image of Ukraine as a promising territory for agritourism is not formed in Europe and in the world (Agricultural, 2017). On average, up to 100 agritourist estates are being created in Ukraine annually. In general, according to the Union for the Promotion of Agritourism, there are currently only about 1.600 farms providing this kind of service. Most of them – more than 1000 – are located in the western regions of the country (Savenko, 2017).

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In general, this shows not only the inability of the rural population to conduct their own business, but also the inadequate level of assessment of the importance of natural attractions in rural areas as a resource for the sustainable development of the rural economy.

On the background of organizational and legal transformations of legal entities – subjects of agricultural production, intensification of their technical and technological development, as well as structural changes in the rural economy, there was a strong release of labor resources from agriculture. Over the past 25 years, the number of employees of agricultural enterprises has decreased by more than 10 times. This fact, together with the insufficient level of development of the rural labor market, has negatively affected the general employment rate of the rural population, which has started to decrease especially rapidly after 2013. The lowest level of rural employment in Ukraine has reached 61.6% in 2016.

In a context of low diversification of the rural economy and, as a consequence, limited sources of employment, the process of applying labor in rural areas is gradually shifted to the level of private households. As a form of production organization, private households represent the modern stage of evolutionary development of family farming in the national rural economy (Geits, 2012). Such holdings are, first and foremost, subjects of economic activity, which is carried out without creation of a legal entity by an individual himself or by persons who are in family relationships and live together in order to meet their personal needs through production, processing and consumption of agricultural products, sale of its surpluses and provision of services using the property of a private household, including the field of rural green tourism.

This kind of employment of the rural population has a number of *positive* (- is a source of income, which allows you to operate at your own discretion; - provides containment form "social explosions" on the part of the economically active population seeking to work; - restricts the spread of the class of rural marginal people; - forms economic base of development of rural territories, etc.) and *negative* (- does not guarantee participation in the system of state social protection; - is not perceived in society as a promising form of employment; - is not endowed with criteria for formalization and personalization; - is limited in its development due to the small size, inability to defend individual interests and, at the same time, the lack of common mechanisms for cooperation of efforts and others) aspects, but is, in most cases, choiceless.

In the overall structure of the total resources of rural households, their share is gradually decreasing – in particular, for the period of 2010 - 2016 from 23.8% to 18.0%. This is paradoxical, because the number of employed in such economic entities during the period of Ukraine's independence has grown almost 4 times. Against the background of a total reduction of formal agricultural employment, this fact underlines the leveling of the impact of agriculture on the income of rural population and explains the need to diversify their employment on the basis of diversification of rural economy as a whole.

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Economic transformations in the rural economy, despite their imperfect nature and the lack of positive effects on the material dimension of welfare of rural population, still contributed to gradual reduction of poverty. According to the State Statistics Service of Ukraine for 2010–2015, the poverty level by the absolute criterion for incomes below the actual subsistence level among rural population is gradually decreasing (although it remains rather high), and in 2015 it was 15.9%, which is 10.6% lower than in 2010 (Table 1). At the same time, the poverty rate of the rural population remains 1.5 times higher than in Ukraine, and almost twice as high as in the urban population (Lupenko, 2017), which indicates the insufficient level of the development of the rural economy, its failure to ensure the income sources of the rural population.

Table 1. The dynamics of the poverty level of the rural population

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Indexes		2015 to					
	2010	2011	2012	2013	2014	2015	2010, +/-
The poverty line by the absolute criterion for income (the subsistence minimum set by law), UAH	843.2	914.1	1042.4	1113.7	1176.0	1227.3	384.1
The poverty rate of the rural population by absolute criterion for income below the actual subsistence level, %	26.5	23.5	23.6	21.4	20.2	15.9	-10.6
Poverty rate of urban population by absolute criterion for income below the actual subsistence level, %	10.3	9.0	9.7	9.6	11.2	8.7	-1.6

Transformational changes in the agrarian sector of Ukraine's economy, as a result of market reforms aimed at ensuring its competitiveness, have allowed to substantially increase the production and export potential of agriculture, and its level of capitalization (Kutsmus, 2017). At the same time, they provoked the emergence of a wide range of mutually related economic, environmental and social problems in the development of rural economy. Accumulation and exacerbation of socio-economic problems in rural areas, the impossibility of single-vector (industrial) development of the agrarian sector without the development of territorial-spatial and social environments of its functioning, contributed to the emergence of the latest direction in national agricultural policy – rural development. In other words, it is about the policy of preservation and development of rural society, the significance of which in society as a whole, and for the development of the rural economy, in particular, remains invariably important, but its quantitative parameters are constantly deteriorating. For the period of 1990 – 2016, the number of population in rural areas has decreased by almost 4 million people, and its share in the structure of the population of the country - by 2.2%. For every 100 males there are 112 females. The average age of the rural population in the period from 1990 to

2016 increased from 39.8 to 40.8 years, the demographic burden for every 1000 people aged 15 - 64 is 270, over 65, and 251 - under the age of 15. The last indicator for the period from 1990 to 2016 deteriorated by 82 points.

In general, during the period of 1990 - 2015, the role of agriculture in the development of rural areas has undergone radical changes, as a result of which it remains a system-creating sector of the rural economy, but is no longer able to fully meet social and economic needs of rural society (Table 2).

The system of employment created in rural areas, conditioned by the state of the rural labor market, endangers the ability to ensure the quality of life of peasants both from the standpoint of subjective and objective perception. In addition, the preconditions for existence of problems of rural economy in ensuring quality of life of rural population are: 1) limited financial resources of local budgets do not allow to ensure the maintenance of infrastructure facilities at the required level, and funding from the national budget has traditionally been insufficient. As a result, the coverage of rural settlements in pre-school establishments is only 33.3% of the total number of villages, schools – 4.3%, paramedic and obstetric posts – 48.2% (Lupenko, 2017). Thus, at the initial stage of agrarian transformation, financing of programs tangential to the sphere of rural development was at the level of 500 million UAH in the average annual calculation, in the period of 2004–2008, funding increased and averaged 2.8 billion UAH a year, but in the future again suffered a serious reduction (Geits, 2017); 2) narrowing the range of socially-oriented participants in rural development – as a result of the reforms undertaken, agricultural enterprises were exempted from the functions of maintaining and developing social infrastructure objects that were not owned by them as subjects of market relations; 3) lack of awareness of the need for peasants to participate in the functioning of infrastructure not only as users, but also on the basis of self-organization and participation in financing, organization of their activities.

Table 2. The Role of Agriculture in Rural Economy of Ukraine

Indexes		Year						
		1995	2000	2005	2010	2015	1990, %	
Number of employees in agriculture, thsd	4881	3801	2475	1038	595	458.3	-4422.7	
Number of employed in personal peasant farms, thsd persons	681	-	2233	2785	2451	2372	1691	
The average ratio of wages in agriculture of the country, %	90.2	50.7	48.3	51.5	63.9	71.1	-19.1	
Share of income from personal peasant farming in total household resources, %	10.2	31.9	48.3	28.2	23.8	20.3	10.1	

The consequence of this was a catastrophic gap in the living conditions of rural and urban populations. In turn, this provokes a constant outflow of youth to cities, distortion of the age and gender structure of the rural population, the negative significance

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of its natural growth and, ultimately, a gradual reduction of the total number of peasants, a decrease in the level of inactivity of villages. There are no subjects of agrarian business in almost a third of the villages, which could create jobs, incomes of local residents and revenues to local budgets (Zinchuk, 2017). In 2015, more than a half (54.9%) of the economically active rural population worked not in their place of residence, but in other settlements (mostly in cities), abroad, thus motivating the development of migration processes. As a result, and under the influence of negative demographic trends in the development of rural society, more than 30% of the total number of rural settlements are outside the self-reproduction and are classified as degraded.

### 4. Conclusions

- 1. The results of the research show that, according to most indicators, development of rural economy does not correspond to the principles of sustainability in economic and social spheres. This is evidenced by the high unemployment rate in the countryside, rapid depopulation trends, low levels of diversification of income sources and entrepreneurial activity, poor infrastructure provision of rural settlements, and, consequently, depreciation of rural lifestyles in general and, in particular, among young people.
- 2. The main challenges of sustainable development of rural economy of Ukraine are: monopolization of impact of large-scale business structures in agribusiness and the gradual reduction of the number of farms; lack of progress in ensuring the welfare of the rural population, high level of poverty; critically negative demographic trends in rural society threatening the runaway and destruction of the village settlement network; insufficient level of social cohesion in rural communities and integration of efforts in solving local development problems. Time prospects for solving these problems remain unidentified as a result of the lack of a clear strategy for agrarian transformations oriented towards solving both economic and social problems of rural development.
- 3. Preconditions for sustainable development of rural economy of Ukraine are:
   multi-functional model of its development; implementation of smart and inclusive development ideas that will ensure sound conditions for participation of all categories of rural society in socio-economic transformations and multiply the value of human and social capital, its ability to effectively use endogenous potential of rural areas and produce competitive goods and services; staged growth of the potential of individuals, households, communities and enterprises; further deepening of rural-to-urban links, their gradual convergence in quality of life.

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### DARNAUS VYSTYMOSI IŠŠŪKIAI KAIMO EKONOMIKAI

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#### Santrauka

Kaimo vietovėms tenka svarbus vaidmuo šalies ekonomikoje, aplinkoje ir visuomenėje, jos prisideda prie kultūros paveldo ir tvarių ūkininkų pajamų išsaugojimo. Didelių žemės ūkio valdų plotų savininkai (agroholdingai), daugiausia besispecializuojantys auginti pasėlius, nedidina kaimo vietovių plėtros. Straipsnio tikslas – parengti priemones, užtikrinančias darnų kaimo vietovių vystymąsi. Straipsnyje išnagrinėti įvairūs kaimo vietovių tvaraus vystymosi programų aspektai, remiantis sociologiniais ir statistiniais duomenimis, tiriama Ukrainos kaimo vietovių ekonominė plėtra 2010–2016 m. Šio tyrimo rezultatai apima kaimo vietovių darnios plėtros politikos įgyvendinimo mechanizmų kūrimą, įskaitant perspektyvias vietos plėtros kryptis ir naujoviškus aplinkos ir socialinių problemų sprendimus.

Raktiniai žodžiai: kaimo ekonomika, tvarus vystymasis, kaimo plėtra. JEL kodai: R11; P25; Q01.

<sup>\*</sup> Autorius pasiteirauti